



A SHORT HISTORY OF AGRICULTURAL EDUCATION AND RESEARCH

Carrie de Silva

Note: 'Control F' - pressing F simultaneously with Ctrl key - will enable you to search within this (or any other) document.

In addition there is a detailed index which can be scrolled through at the end.

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English publishers say, despondingly, that 'Agriculturists are not a reading class.' What have they ever had to make them so?

A Short Inquiry into the History of Agriculture in Mediaeval and Modern Times Chandos Wren-Hoskyns (1812 - 1876) Acknowledgements

Particular thanks are extended to Air Commodore Stephen Skinner of

the Farmers' Club for unlocking for me the Aladdin's cave that is the

Farmers' Club archive.

This is not a referenced academic work but I must acknowledge the

invaluable and endlessly fascinating Oxford Dictionary of National Biography. Mention should also be made of Sir John Russell's A History

of Agricultural Science in Great Britain 1620-1954 published in 1966, after

he had retired as Director of Rothamsted Experimental Station.

Thanks also to colleagues who ensured that I did not omit the land

agents and foresters, and to Caroline Stanford-Billington who tirelessly

cross-referred dates and departments in pursuit of some measure of

logic which I hope, between us, we have almost achieved.

And very many thanks to those who have responded to my open

request to readers for additions and corrections. I never know what

gem my email box will elicit.

Cover design: James Armstrong.

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Online Book Links

The latest version of this and my other ebooks is available at my university profile page under Documents www.harper-adams.ac.uk/staff/profile.cfm?id=32:

A Short History of Agricultural Education and Research

A Health and Safety Casebook - 1837-2015

Equine Law

Equine Law - Northern Ireland edition

Negligent Valuation Casebook

List of Abbreviations

ADAS Agricultural Development and Advisory Services

ARC Agricultural Research Council

BBSRC Biotechnology and Biological Sciences Research Council

CAFRE College of Agriculture, Food and Rural Enterprise

Defra Department of Environment, Food and Rural Affairs (2001)

MAF Ministry of Agriculture and Fisheries (1919-1955)

MAFF Ministry of Agriculture, Fisheries and Food (1955-2001)

RAC Royal Agricultural College

RASE Royal Agricultural Society of England RICS Royal Institution of Chartered Surveyors

Colour coded entries:

Ireland shamrock green Scotland thistle purple USA national blue

Wales orange (daffodil yellow didn't show up!)

Ever wondered when your local agricultural college was founded?

Ever asked yourself where veterinary science is or has been taught?

Or precisely where research on hops or honeybees, poultry or potatoes was carried out?

Look no further. This is not an academic work. It is merely meant to provide signposts to some key and interesting features in the development of agricultural education and research in the United Kingdom (including, of course, Ireland until 1922) - essentially a chronological listing for quick reference, a starting point for further investigation and, it is hoped, a diverting read in its own right.

Note: although essentially British, brief reference is made to key events and people overseas, particularly the USA, given the wider scope of their significance.

See **The Chronology** - **A Guide**, p15 below, for further notes on how to use the listing.

Agricultural Development - An Overview

The Romans were writing on agriculture over 2,000 years ago with principal offerings including Cato the Elder's *De Agri Cultura* (On Farming) and Palladius's *Opus Agriculturae* (an extensive offering in 14 books) and there are early works to interest the scholar from Egypt, Mesopotamia and China. Closer to home, readers will be familiar with that most famous of early agricultural works, Thomas Tusser's *Five Hundred Points of Good Husbandrie* in rhyming verse, published in 1557.

More important and scientific were Francis Bacon's reports of agricultural experiments at his estate near St Albans in the early 1600s. In the interest of drawing an arbitrary line I have opened with a brief note on a number of influential works from the seventeenth century and then an entry on Bacon, which might be said to be the start of the early modern scientific approach. This leads into the period which saw some key developments, gradually moving towards formal agricultural education and research. The background to these developments may be seen as a meeting of technological and methodological changes which for some of the early experimenters was, perhaps, science for science's sake but gained focus in the need to address the dramatic population growth. The population of England in 1750 was estimated to be around 5.7m, not wholly dissimilar to that of the fourteenth century (albeit with considerable fluctuation in between). There were concerns, as a diminution in disease and war led to increasing stability, that the population would soon outstrip the food supply. T Robert Malthus fuelled concerns about the possible consequences of a rapidly rising population with An Essay on the Principle of Population (published in 1798). His work certainly accelerated plans to measure the problem with the introduction of the population census in 1801. This first comprehensive census indicated an English population of 8.3 million with 0.6 million in Wales and 1.6 million in Scotland. By 1901 this had grown dramatically to 30.5 million in England, 2 million in Wales and 4.5 million in Scotland.

As well as political concerns about population, at a local level, the impact of enclosure was being felt. Although there had been enclosure and the consequent exclusion of common grazing, since the thirteenth century, it was not widespread until the eighteenth. As the small holder and peasant was forced from the land, the new farmers had larger, fenced and hedged holdings. They demanded greater returns from farming and the late seventeenth century saw these men forming local agricultural societies with the aim of sharing information and improving farming methods. The number of such societies grew apace throughout the nineteenth century and the prizes offered for best crops and livestock were often a key incentive to experiment and improvement throughout the year. Many such societies are, of course, thriving to date. One cannot explain the drivers for and impact of

enclosure in a paragraph. There are divergent interpretations on its impact on agricultural improvement and rural de-population. There is, for example, evidence of experiments in crop rotation in areas of open farming. And did the pull of factory wages and opportunities (whatever the grim reality of the early years) have a greater impact on urban growth than the push from the countryside? One also needs to understand the balance between arable and pasture, the rise and decline of the importance of wool, replaced by American cotton which was, in turn, replaced from colonial Indian sources as politics and the civil war (1861-65) disrupted trade with the American south. Many questions are raised but it is clear that enclosure was one driver of agricultural improvement and that the pace of research and development was almost certainly accelerated.

In addition to purely domestic considerations, the nineteenth century agricultural scene was overlaid by the politically divisive question of importation controls. Political power lay with the landholding class who wished to protect the market for national producers, leading to the Importation Act 1815, better known as the Corn Laws. The tariffs on imported grain were finally eliminated by 1849 under the Importation Act 1846, the need for a sound conclusion to many years of dissention having been given added urgency by the Great Famine in Ireland and some years of poor harvest in England. Developments in mechanisation in the US prairies and cheap, all but slave, labour in Russia, cheaper and more efficient railways and shipping and improved preservation techniques allowed those major producers to undercut British costs. The medium term effect of this was to significantly increase British reliance on imports and, consequently, to focus attention on how to improve farming systems and productivity.

Allied to these developments was the advance in economic thought, much of which was founded around and applied to agricultural inputs: land, labour and capital. As well as Malthus, mentioned above, the major figures in this area in the late eighteenth and nineteenth centuries were Jeremy Bentham, David Ricardo and John Stuart Mill. Ricardo wrote An Essay on the Influence of a Low Price of Corn on the Profits of Stock in 1815 setting out the law of diminishing marginal returns, whereby more input (e.g. capital and labour) into a finite resource (e.g. land) will result

in falling marginal outputs. He further expanded on this in *Principles of Political Economy and Taxation* in 1817, developing the economic (as opposed to the contract) theory of rent. He used his ideas to argue for free trade. Ricardo was particularly influenced by James Mill, whose son, John Stuart Mill (published the influential *Principles of Political Economy* in 1848. Although economic theory always raises disparate views (giving truth to the old saw that two economists in a room will result in three opinions), these men provided a theoretical explanation of the past and present, informing political decisions regarding agricultural tariffs, other support (such as the public subsidy of land drainage under the Public Money Drainage Acts 1846-56) and, as a consequence of what was required of agricultural activity, the funding of research and education from the public purse.

Unfortunately, of such sensitivity and divisiveness were many of these issues, that both the Farmers' Club and the Royal Agricultural Society prohibited politics from their debates and papers, thus hindering potential progress in these areas by excluding those who could have added a valuable voice to inform parliamentary activity.

Great technical strides were made in farming throughout the nineteenth century with the 1840s to 1870s being noted as the 'golden age' of agriculture. Productivity was improved through a combination of enclosure, crop rotation, mechanisation, land drainage, the use of fertilisers and changes in livestock breeding and feeding. Nevertheless, the pressures from overseas, and the problems of getting cheap, skilled labour, as large numbers of the rural population migrated to urban jobs, precipitated the great agricultural depression from the mid-1870s. This was exacerbated by consecutive years of poor harvest and such excessively wet weather as to significantly affect livestock, particularly sheep. This depression persisted until, by some measures, 1940. It must, however, be noted that there were considerable regional variations in the level of depression, yields and rents and some widely cited general measures were averages and did not give the full picture.

Education

So, from the earliest days of concerns about the need to feed a growing population and to fight cheap imports, it was seen that agricultural yields and efficiencies needed to be improved and the direct and obvious consequence of this was the need for (a) research and development and (b) an educated workforce, from the managerial through to manual levels.

As well as people developing farming systems in practice, the late eighteenth century saw the start of formal education and research with the first Chair of Agriculture being established at the University of Edinburgh (1790) with the support of the Highland Society of Edinburgh. It may be noted that this was not without dissent from the professors of Botany, Natural History and Chemistry who saw their subjects being infringed upon. The University of Oxford did not appoint a Chair of Rural Economy until 1840, although the role had been created as the Sibthorpian chair under the will of the botanist, John Sibthorp in 1796.



Although not formalised until the mid-twentieth century, the pattern of agricultural education was set fairly early on.

Universities were delivering higher level teaching and research, although not always at degree level, with agriculture and related subjects such as forestry and estate management being considered to be less than academic by some of the institutions which delivered early courses. For example, whilst Oxford gained a professor of Agriculture in 1907, pass degrees were not awarded until 1919 with honours degrees not conferred until 1945. Other universities to offer agriculture in the nineteenth and early twentieth centuries were Reading, Durham (the branch which became the University of Newcastle), London (through Wye College), Leeds and the various Welsh institutions, notably Bangor and Aberystwyth.

There were then a small number of colleges delivering extended courses, normally referred to as diplomas. These started with the Royal Agricultural College in 1845. There were then two colleges which, although relatively short lived, enjoyed considerable educational prestige at the time: Aspatria, established in Cumberland in 1874 (closing in 1914) and Downton, established in Wiltshire in 1880 (closing in 1906). Their closures were a product of the combination of increasing state provision for agricultural education, the death / retirement of extraordinary principals and, with Aspatria, the outbreak of war. For an even shorter period (1887-1903), Hollesley Bay in Suffolk was also considered to be of a similar ilk. Harper Adams in Shropshire (established 1901) and Seale Havne in Devon (established 1919) were later and long standing colleges in this category. In addition to studies in Agriculture, these colleges prepared students for the Surveyors' Institution (now the Royal Institution of Chartered Surveyors) land agency qualification, which Harper Adams and what is now the Royal Agricultural University, still do. In the nineteenth century, the Royal Agricultural College, Aspatria and Downton also prepared students for Royal Agricultural Society examinations.

Then came what have been variously termed farm institutes, county colleges and, latterly, simply agricultural colleges. Some of these still concentrate on courses for 16 year old school leavers but a growing number are offering a higher education degree or foundation degree provision for post A level students. Whilst many of these bodies, some dating back to the nineteenth century, are thriving (independently or as an agricultural department of a larger college), it is sadly apparent that there are no institutions in the UK with the words 'Agricultural College' in their title since the Royal Agricultural College became the Royal Agricultural University in April 2013.

People

If asking those with a general interest in such matters to name the key characters emerging in the earlier days of agricultural progress, the names of Arthur Young, Jethro Tull, Charles 'Turnip' Townshend, Coke of Norfolk (or of Holkham) and Robert Bakewell would doubtless be near the top of the list. These estimable folk should,

perhaps, more clearly be seen as a product of their time and geography (and certainly in some instances, knack for self-publicity) rather than any of them inventing, as it were, the wheel. They are inevitably and necessarily included but along with other, somewhat lesser known persons such as John Worlidge, whose seed drill design preceded Tull's working model, and the Colling brothers, Charles and Robert, whose stock breeding was arguably more effective than Bakewell's.

Obviously, people were active over some time, often many decades, but are included under the date of one of their major works which places their influence in chronological context.

The Chronology - a guide

Where there are major developments from an original point, there may be two entries, one following through from the earliest date of the founding organisation and one under the new date. Where a body has simply developed or had name changes, the life story of the organisation will flow down from the earliest date. For example the Scottish Agricultural College is listed under 1990, when it was formed but can also been seen under entries in 1887, 1901 and 1904 from whence the constituent colleges (the West of Scotland Agricultural College, the Edinburgh and East of Scotland Agricultural College and the North of Scotland Agricultural College) can trace their histories, and then follows through with a 2012 listing for the Scottish Rural University College.

For universities, I have listed them under what I believe to be the earliest known agricultural activity taking place at a given institution and have simply included a few key points. Again, the complications of mergers, the gaining and losing of autonomy and name changes can make the picture murky.

An additional complication is to define *agriculture*: horticulture, botany, zoology, entomology, mycology, forestry, land management and more have been included, as relating to production agriculture, but there will be omissions and areas of incomplete attention.

And what is 'education and research'? It has been interpreted in its widest sense taking in schools, colleges, universities and research institutes but also through to the other bodies with an educational function, accredited or otherwise, such as agricultural societies, Young Farmers' Clubs and the Women's Institute, which have played such important roles.

Books, journals and reports of influence are, of course, too numerous for comprehensive coverage. There is, however, the inclusion of a few key publications, particularly in the earlier years, where the work was ground-breaking or the author was so influential as to demand acknowledgement in a collation such as this. Some of the key government reports which have shaped educational provision or research activity have also been noted.

Many items have been cross referred to other entries. Not all will be covered, however, so if there is a missing link try searching in the alphabetical index at the end.

Agricultural Societies

A range of local agricultural societies are included. The list is incomplete, not to say random, but gives a sense of the development of the regional associations. It is hoped that readers will add further organisations and provide dates of cessation or confirmation of continued activity, where this is missing. Added to this could, or rather should, be the breed societies but that will be left to a later edition.

Readers' help requested

There will be errors, omissions, illogicality in my choice of groupings and, doubtless, instances where I have got it completely wrong. Please let me have your amendments or suggestions to allow this little reference guide to gain in usefulness over time.

Included on page 213 is a list of institutions for which I have little more than a name - any further information as to dates and ultimate destiny

would be much appreciated, as well as any additional items you think should be included.

&€

It is hoped that the major developments have been picked up and that the guide provides a brief picture of how developments have emerged over the past three centuries or so, particularly highlighting links between various institutions and people. A scan through the index at the back should allow the reader to easily locate particular points of interest.

Regardless of any amendments, the book will inevitably be out of date with almost immediate effect. An online version will be regularly updated:

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Please send any comments, corrections, updates and suggestions to me:

Carrie de Silva

Harper Adams University, Newport, Shropshire, TF10 8NB

1 01952 815304

desilva@harper-adams.ac.uk

A Chronology

Early modern agricultural scientists and writers

The nature of this work precludes extensive detail on all of the individuals who broke scientific ground of import to agriculture and a valuable and very readable summary of early writing is to be found in Sir John Russell's *A History of Agricultural Science in Great Britain 1620-1954*, published in 1966. This note on early writers is woefully limited, but those of influence include:

Hugh Plat (1552-1608) the Cambridge educated son of a London brewer, Plat published *The Jewell House of Art and Nature* in 1593 and *Floraes Paradise* in 1608. He is credited as one of the earliest to adopt a scientific approach to the analysis and use of soils in the early modern period.

Walter Blith (1605-1654) of Cotesbach, Leicestershire, published *The English Improver, or, A New Survey of Husbandry* in 1649 and *The English Improver Improved* in 1652 discussing irrigation, drainage, enclosure, tillage and manuring. He drew on practical field trials carried out at his home farm and was a member of Samuel Hartlib's influential circle (see 1652). Blith was a captain of Parliamentary forces and also an agent for the sequestration of Royalist land, and was engaged in the survey of Crown Lands, some of which he purchased for himself.

Nehemiah Grew (1641-1715) published *The Anatomy of Vegetables* in 1675.

John Mayow (1643-1679) qualified as a lawyer but went into medicine. He initiated valuable (for agricultural science) work on nitrates although his early death set back progress in this area.

John Woodward (1665-1728) wrote up his ground-breaking experiments on the composition of plants in the *Philosophical Transactions* of the Royal Society.

Stephen Hales (1677-1761), a rector with the curacy of Teddington, published *Vegetable Staticks, or an Account of some Statical Experiments on the*

Sap of Vegetables in 1727.

Francis Home (1719-1813) published *Principles of Agriculture and Vegetation* in 1757.

Erasmus Darwin (1731-1802) published *Phytologia or The Philosophy of Agriculture and Gardening* in 1799.

1620 Francis Bacon (1561-1626)

Bacon, described variously as a philosopher, statesman, scientist, jurist and author was among the first in the early modern period to apply science to agriculture and he wrote up the agricultural experiments carried out on his estate at Verulam, near St Albans in *Novum Organum*, published in 1620. Other detailed agricultural experiments were described in *Sylva Sylvarum*, published posthumously, by his secretary William Rawley, in 1626.

1652 Samuel Hartlib (c1600-1662)

Hartlib, originally from Elblag/Elbing in Poland, was a hub for both the oral and written sharing of ideas. His original contribution is unclear but his influence is incontrovertible. His papers, long lost, are now at the University of Sheffield.

In 1652 he issued Sir Richard Weston's *Discourse of Flanders Husbandry* (first published in 1645) in his efforts to disseminate Dutch farming practices in England. He publicised the advantages of planting new leguminous crops, experimenting with fertilizers and manures and advocated the possibilities of apiculture and fruit tree propagation. He introduced John Beale (see 1653) to John Evelyn (1664) who developed an important working partnership. The 'Hartlib circle' was influential in the development of the Royal Society (see 1662).

1653 John Beale (c1608-1683)

Beale was a clergyman and member of the Royal Society. He published A Treatise on Fruit Trees in 1653 and also produced, among other things, Observations on some parts of Bacon's natural history, as it concerns fruit trees, fruits and flowers in 1658. He contributed significantly to John Evelyn's

Sylva (see 1664).

1662 Royal Society

The precise details of the founding of the Royal Society and its precursors (such as the Philosophical College, the Invisible College, the Gresham College Group and the College for the Promoting of Physico-Mathematical Experimental Learning) are complicated to the extent that anything other than a detailed entry would be inaccurate. Suffice is to say that the formal start of the current Royal Society dates to the granting of a Royal charter by Charles II in 1662. One of the original eight committees, the Georgical¹ Committee, was devoted to husbandry.

The Society planned a *History of Agriculture and Gardening* and a questionnaire was drawn up. The disarray caused by the Great Plague (1665-66) and the Great Fire of London (1666) meant that the project was not seen through but reports from Yorkshire, Kent, Dorset, Devon and Cornwall survive.

1664 Robert Boyle (1627-1692)

The seventh son of the Earl of Cork, Boyle was sent from his home at Lismore Castle, Co. Waterford to study at Eton and then Oxford. He is known as the father of modern chemistry and for establishing Boyle's Law: that the volume of a gas varies inversely to the pressure of the gas. He was a founder member of the Royal Society and his interest in natural science extended to husbandry. In 1664 he published *Some Considerations Touching the Usefulness of Experimental Natural Philosophy* entreating practical experiments by farmers.

1664 John Evelyn (1620-1706)

Evelyn was educated at Balliol College, Oxford, called to the bar and went on to become a founder member of the Royal Society. A prolific

Meaning: 'related to agricultural and rural affairs' from the Greek georges: farmer.

writer, arguably his most influential work was *Sylva, or A Discourse of Forest-Trees and the Propagation of Timber in His Majesty's Dominions.* He wrote on many subjects beyond agriculture and horticulture but, in our area of interest, produced *Terra, A philosophical discourse of earth, relating to the culture and improvement of it for vegetation and the propagation of plants* in 1676, which was for a century or so the only British book on soil, the last edition being published in 1788. The word 'philosophical' forewarns of the esoteric nature of some of the content, and the practical farmer would have found little of use.

1669 John Worlidge (1640–1700)

This pioneering Hampshire agriculturalist published his *Systema Agricultura*, or *The Mystery of Husbandry Discovered* in 1669. This was the first systematic treatment of farming, both arable and livestock, which drew on and considerably developed the somewhat vague works which came before. The chapter on cider was later expanded as a separate work, *Vinetum Britannicum*, or, *A Treatise of Cider*. He was one of the first to discuss the importance of farming as an industry and produced designs for a seed drill of a type which Jethro Tull (see 1731) developed and put into practice. There were, however, records of even earlier operational seed drills in 16th century Italy.

1670 Petit Séminaire, St-Joachim

The first record of formalised agricultural agricultural training in Canada was work at the industrial school introduced under Bishop François de Laval (1623-1708), first Catholic bishop of Québec (canonised in 2014) and continued to 1715. For further on Canada see 1874 - Ontario School of Agriculture.

1676 Moses Cook (?-1715)

Far less well known than John Evelyn (see 1664), Cook wrote *The Manner of Raising, Ordering and Improving Forest and Fruit-Tree.* It ran to only two editions but has an important narrative on estate management and the rural landscape. His legacy was in valuable work on propagation from seed.

1681 John Houghton (1645–1705)

The Collection of Letters for the Improvement of Husbandry and Trade was published monthly until 1683 and then weekly from 1692 to 1703. It comprised Houghton's editorial with contributions from the likes of Robert Boyle (see 1664), John Beale (see 1653) and John Worlidge (see 1669).

Houghton was the first to write on the cultivation of the potato as a field crop. He also extended John Evelyn's (see 1664) work on soil.

1723 Society of Improvers in the Knowledge of Agriculture in Scotland

This society gained its impetus largely from one Robert Maxwell (1695-1765) and was concerned with the spread of knowledge to allow farmers to better their agricultural practices. The first president was Sir Thomas Hope (c1681-1771). Few publications were released and in later years Maxwell switched his attention over to the Edinburgh Society for the Encouragement of Arts, Sciences, Manufactures, and Agriculture (see 1737).

1745 Dissolved.

1730s Viscount Charles Townshend (1674-1738)

Viscount Townshend introduced the four-year crop rotation system (wheat, barley, turnips and clover) to his estate at Raynham Hall, Norfolk, and to Britain, at some point between his retirement from national politics in 1730 and his death. It should be noted that he did not invent this system, it having been used in Europe, probably first in the Waasland area of Flanders, since the sixteenth century. Nor did he introduce the turnip, from which he gained his widely known nickname, Turnip Townshend. He did, however, popularise its widespread planting as a key element of the four-year system.

1731 Jethro Tull (1674-1741)

The New Horse-hoeing Husbandry, or an Essay on the Principles of Tillage and Vegetation was published in 1731, after 17 years of farm experiments,

and must be mentioned as one of the earliest agricultural publications to gain relatively wide coverage and for the fame of its author, but its theory that ploughing without fertilisation could produce the best soil did not stand long without detractors (see 1762). Berkshire born Tull, who farmed in Oxfordshire after his marriage, is most famous for his work with the seed drill. Although Tull did not *invent* the seed drill (see 1669), as is often popularly cited, he certainly refined, developed and publicised it. As drills in Tull's era, and beyond, were expensive and unreliable, usage was not widespread until the mid-nineteenth century.

1731 Royal Dublin Society for Improving Husbandry, Manufacture and Other Useful Arts

Per John Loudon (see 1809): '... one of the most complete establishments of the kind that exists.'

1737 Edinburgh Society for the Encouragement of Arts, Sciences, Manufactures and Agriculture

Established as a subsidiary of the Select Society, this group was set up by Allan Ramsay (1713-1784) to encourage all aspects of debate 'apart from revealed religion and Jacobitism'.

1756 A gold medal was offered for the best dissertation on Vegetation and the Principles of Agriculture'. This was won by Francis Home (1719-1813) with *Principles of Agriculture and Vegetation*. This was the first book on (solely) agricultural chemistry and was translated into French and German and ran to four editions.

1739 Kilsyth, Lanarkshire

A half-acre potato field became one of the first recorded experimental plantings in the UK.

1755 Brecon Agricultural Society

This society is listed as the oldest of the local societies in the UK. It can trace its history to a meeting in the Golden Lion Hotel in Brecon in 1755 and continues to run an annual show at Watton Villa, Brecon.

1760 Robert Bakewell (1723-1795)

Bakewell took over the tenancy of his father's farm at Dishley Grange in Leicestershire in 1760. Although seen as one of the key figures in agricultural improvement his work was not wholly successful. He did, however, develop ideas on systematic selective breeding, most successfully with sheep (developing the New/Dishley Leicester from which the English Leicester/Leicester Longwool is descended) and horses (breeding the Improved Black Carthorse which later developed into the Shire), and rather less successfully with cattle (the Dishley Longhorn, developed from a Westmorland bull cross, did not survive in Bakewell's form).

His ideas on artificial selection were later studied by Charles Darwin.

1762 Reverend Adam Dickson (1721-1776)

Dickson was for most of his working life the minister of Dunse (now Duns), Berwickshire and was much missed by his parishioners after his premature death in a riding accident. He published his first major work, *Treatise of Agriculture, Volume 1*, in 1762.

- 1770 Treatise of Agriculture, Volume 2.
- 1772 Essay on Manures, which was highly critical of Jethro Tull's (see 1731) conviction that ploughing alone could produce good soil.

1762 John Wyn Baker (c1726-1775)

Born in the USA and not settling in Ireland until c1761, his pamphlet *Some hints on the better improvement of husbandry*, published in Dublin in 1762, brought him to the notice of the Dublin Society who appointed him to work on a scheme of agricultural instruction and experimentation. Further publications followed, notably *Practical agriculture epitomized and adapted to the tenantry of Ireland* (1771). His gravestone inscription tells of both his achievements and professional relationships: 'one of the first improvers of this husbandry and its implements in this kingdom .. His superiority begot him enemies whose severity broke his noble spirit.'

1766 Henry Home, Lord Kames of Blair Drummond (1696-1782)

Lord Kames published *The Gentleman Farmer* in 1766. He was an important advocate and judge as well as an agricultural improver, and was famed for (and gained substantial financial benefit from) bringing large tracts of waterlogged peat moss into productive agricultural use.

1767 Manchester Agricultural Society

- 1848 The Manchester Agricultural Society and the Liverpool Agricultural Society merged to form the Manchester and Liverpool Agricultural Society.
- 1872 The Royal Manchester, Liverpool and North Lancashire Agricultural Society was formed after a further merger.
- The Journal of the Royal Manchester, Liverpool and North Lancashire Agricultural Society was first published.
- 1893 The society became the Royal Lancashire Society.

The annual society show ran in 2012 after a lull of some years.

1768 Arthur Young (1741-1820)

Young was known as much for his statistical developments (as seen, for example, in *Political Arithmetic*, pub. 1774) as for his agricultural writing and experimentation. He published one of his major agricultural works, *Farmer's Letters to the People of England*, in 1768. He also produced the *Annals of Agriculture* (1784-1815) which was the most prominent of the eighteenth century agricultural periodicals and ran to 45 volumes. His reputation has both supporters and detractors, however, and he has been described as everything from a mountebank and a charlatan to a proto-social scientist.

1768 Three books further books were published between 1768 and 1770 which gave an invaluable account of rent, production and stock, compiled from Young's personal observations: A Six Weeks' Tour through the Southern Counties of England and Wales, A Six Months' Tour through the North of England and Farmer's Tour through the East of England.

- 1770 A Course of Experimental Agriculture described the work on his farm in Bradfield, Essex.
- 1793 Appointed as Secretary to the Board of Agriculture, Young wrote a number of the county surveys (see 1793).

1775 Nathaniel Kent (1737-1810)

Sometimes described as the first land agent, Kent was involved with the royal estates at Richmond and Windsor, the Windham estate at Felbrigg, Norfolk, the Earl of Orford's estate in Norfolk, the Egremont estate in Yorkshire and the Earl of Hardwick's estate in Gloucestershire. He also carried out London work, including engagement by the Goldsmiths' Company. Unusually for the time, he never became a resident agent.

- 1775 Kent published influential *Hints to Gentlemen of Landed Property* based on his own experiences of estate management, noting that: 'Competent knowledge of Agriculture is the most useful science a gentleman can obtain ...'. He was convinced that a strong system of leasing was vital to good cultivation and also introduced to his clients the need for detailed and consistent record keeping.
- 1790s By this date Kent had a land agency business with an office in London and two partners (William Pearce, a nephew, and John Claridge).
- 1801 Noted in an Act of Parliament (41 Geo 3 c119, 2125) as 'an eminent land surveyor'.

The author of a biographical paper (Pamela Horn, 1982) had no doubt that Nathaniel Kent was responsible for raising land agency 'to the level of a distinct and honourable profession'.

1776 Thomas Coke, Earl of Leicester (1754-1842)

Coke inherited the property which gave him his nomenclature as Coke of Holkham (otherwise Coke of Norfolk). He was active and vocal in his agricultural pursuits, which he ran alongside a lengthy parliamentary

career.

Coke's notable achievements were the use of cocksfoot and lucerne as feed and grazing, thus dramatically improving sheep stocking rates, the selective breeding of sheep and bringing the English Leicester to Norfolk in replacement of the slow maturing Norfolk Horn, the monitoring of milk yields with regard to different fodder (particularly a comparison of the denser Scottish turnip against the more watery Norfolk variety), the favouring of the ox plough as against the horse, and also considerable forestry improvements on his estate. He was on the first Board of Agriculture (see 1793).

Despite his fame, a deeper examination would indicate that his planting programme was not faultless and that far less famous names were responsible for the development of the ideas implemented and expanded on by Coke. His undoubted influence, however, deserves an entry in any summary of agricultural development. It has, of course, been pointed out that work on an estate is influenced as much or more by land agents and farm managers as owners. Coke's outstanding land agent was Francis Blaikie (1771-1857): 'A large part of the high reputation of the Holkham estate for progressive and successful farming was due not so much to his famous employer but to Blaikie's intelligent and detailed direction and his agricultural education of the tenants.' (ODNB).

1777 Bath Society

The Bath Society was formed largely by Edmund Rack (c1735-1787) under the first presidency of Henry Thomas Fox-Strangways, 2nd Earl of Ilchester (1747-1802). It is now known as the Royal Bath and West of England Society.

- 1779 10 acres of land at Weston in Somerset became one of the first experimental fields in England.
- The society commenced regular publication, which became the *Journal of the Bath and West of England Society*.
- 1790 The name was changed to the Bath and West of England Society for the Encouragement of Agriculture, Arts, Manufactures and Commerce.

- A Committee of Chemical Research was set up and funded, with a laboratory set up with farmers invited to send in soil, etc. for analysis, and a series of lectures being presented.
- 1840s Sir Thomas Dyke Acland (1809-1898) took editorship of the *Journal* and furthered the Society's scientific endeavours by engaging Augustus Voelcker (see 1843) as the Society's Consultant Chemist.
- 1851 It merged with the Devon County Agricultural Society.
- 1869 Re-named Bath and West of England Society and Southern Counties Association for the Encouragement of Agriculture, Arts, Manufactures, and Commerce.
- A 10 day course was established in the form of a travelling dairy school, costing one guinea and run in various locations in the area. It was first run in Swindon, then Shepton Mallet, Chippenham, Exeter and Oxford and later at Wells and Frome. These are the earlier known travelling dairy schools in England.
- 1890 Re-named the Bath and West and Southern Counties Society.
- The major annual agricultural show which had, since the 1850s, moved to a different location each year acquired a permanent ground at Shepton Mallet, Somerset.

1778 William Marshall (c1745-1818)

Marshall published accounts of him own farming experiences on '300 acres of various soils near Croydon.' Here he gave an exceptional account of farming but also his somewhat traditional views of recommending oxen rather than horses and keeping strict controls on workers.

He further published plans for government supported agricultural colleges and lobbied extensively for a government Board of Agriculture, being most put out when it was established and his arch rival, Arthur Young (see 1768) was appointed secretary.

He wrote a number of county agricultural guides, which are seen as superior to Young's although he did not enjoy Young's facility for selfpublicity and good social and working relationships such that his work is less well known.

- 1787 Norfolk
- 1788 Yorkshire
- 1789 Gloucestershire
- 1790 Midland Counties
- 1796 West of England
- 1798 Southern Counties
- 1799 Proposals for a Rural Institute or College

1780s Charles (1751-1836) and Robert Colling (1749-1820)

Charles Colling farmed at Ketton Hall, Co. Durham. He learned about selective breeding after a visit to Robert Bakewell (see 1760) and practised the ideas with his brother Robert, who farmed in nearby Barmpton. Although the younger, Charles seems to have been the more prominent improver and businessman, and his wife Mary (1763-1850) was also keenly involved in his cattle breeding and business enterprise. He clearly enjoyed his success 'being not behindhand in high living and hard riding' according to an RASE article after his death.

The brothers were noted for their developments with the Durham Shorthorn and their prime herds can be traced to the *Hubback* bull. A grandson of this beast was the famed *Durham Ox* (1796-1807), also referred to as the *Ketton Ox*. This bull was most unusually large and was exhibited throughout the country, attracting admission fees of £97 in one day in London, and was the subject of many paintings (most famously by John Boultbee), his likeness even appearing on blue and white china. His fame was only outstripped by the acknowledged peak of the Colling brothers' breeding programme, *Comet*, born in 1804 who went on to become the first 1,000 guinea bull when sold at Charles's retirement auction in 1810. (The current value of 1,000 guineas varies from about £61,000 - £3 million depending on measure - but a substantial sum by any reckoning.)

The last major dispersal of Colling cattle came in 1818, through which sale Viscount Althorp established a major part of his notable herd with a final sale held after Robert's death in 1920.

A piece in the *Journal of the Royal Agricultural Society of England* in 1899 notes that the Colling brothers' 'life-work has achieved a centennial permanence, and a world-wide extension which Bakewell [see 1760] failed to attain with the Longhorn'.

1780 Vaughan Charter School, Castlehasset, Co. Fermanagh

This school for boys and girls was set up to provide training and agricultural work under the trust established by the will of George Vaughan of Buncrana Castle, County Donegal after his death in 1763. The school ran in the village of Tubrid on Vaughan's Castlehasset estate in the neighbouring county.

- 1934 The Charter School closed.
- 1936 The Vaughan Agricultural Institute was established with trust monies.
- 1972 The Agricultural Institute closed, largely due to the establishment of Enniskillen Agricultural College (see 1967).

The Vaughan Trust continues to support the development of agriculture in County Fermanagh.

1783 Odiham Agricultural Society

This Society was founded particularly to investigate horses, notably an extraordinarily successful racehorse called *Eclipse* (1764-1789).

- 1788 The Society sends two students to Paris to study at the veterinary school.
- 1791 The Veterinary College of London (see 1791) formed as an independent body out of the animal research committee of the Society.
- c1844 The society was wound up.

1784 Highland Society of Edinburgh

The original objects of the Society included the improvement of the Highlands and Islands of Scotland and the conditions of their inhabitants through advancing agriculture and extending fisheries. It had a strong cultural, as well as agricultural, remit and promoted the Gaelic language and poetry.

It is now known as the Royal Highland and Agricultural Society of Scotland.

- 1785 Medals for essays on agricultural subjects were offered.
- 1787 It was re-named the Highland Society of Scotland at Edinburgh.
- 1799 Prize Essays and Transactions of the Highland Society were first published.
- 1822 The first show was held in Canongate, Edinburgh.
- 1828 Prize Essays and Transactions published in conjunction with the *Quarterly Journal of Agriculture* (see 1828).
- 1834 It was re-named as the Highland and Agricultural Society of Scotland
- 1843 Prize Essays became simply styled Transactions.
- 1856 The Society introduced examinations leading to a diploma in scientific and practical agriculture
- The Society collaborated with the Royal Agricultural Society of England on National Diploma examinations.
- 1948 The Royal title was bestowed by George VI on his visit to the show at Inverness.

1788 Hippiatric Infirmary

Edward Snape, farrier to George III, and author of *The practical farrier*. A treatise on all the diseases incident to that noble animal, the horse (pub. 1797), established a hospital for horses in Knightsbridge which was also intended as a teaching establishment. It closed very soon after opening for lack of money, although the King did support such a hospital in

Hanover. Work continued in the form of the Veterinary College of London (see 1791).

1790 University of Edinburgh

The first Chair of Agriculture was appointed, with the support of the Highland Society of Edinburgh (see 1784), in the person of Dr Andrew Coventry (1764-1832) who took the £50 per annum post in the face of some opposition from the chairs of Natural History and Botany who were keen that their domains were not encroached upon.

See Britain's First Chair of Agriculture at the University of Edinburgh 1790-1990: a history of the Chair founded by William Johnstone Pulteney by Ian J Fleming and Noel F Robertson (1990).

- The first Professor of Veterinary Studies, William Dick (1793-1866), was appointed with the support of the Highland Society. His school was known in the early days as the Clyde Street Veterinary College (later the Royal (Dick) Veterinary College).
- 1889 Forestry was introduced under William Somerville (1860-1932), funding shared between the Board of Agriculture and the Royal Scottish Arboricultural Society. Somerville went on to establish agriculture at Durham in 1891, moved to Cambridge in 1899, thence to Oxford in 1907 where he remained until retirement. He gained particular credibility among working farmers having, on his father's death, run the 400 acre home farm at Cormiston in Lanarkshire through the years of agricultural depression.
- 1919 The Institute of Animal Genetics (IAG) was established under the first directorship of Professor Francis A E Crew (1886-1973).
- 1931 The Institute of Animal Genetics was brought under Agricultural Research Council support.
- 1947 The Poultry Research Centre (PRC) was formed out of the poultry research unit of the Institute of Animal Genetics under the first directorship of Alan Greenwood (1897-1981).

- 1951 The Royal (Dick) Veterinary College (see 1840 above) was formally affiliated to the university.
- 1966 The ARC Unit of Statistics (see 1895 University of Aberdeen at 1966) transferred from the University of Aberdeen.
- 1970 The Centre for Tropical Veterinary Medicine was established.
- 1976 Staff from Mann's ARC Unit of Reproductive Physiology and Biochemistry transferred from Cambridge into ABRO on his retirement.
- 1981 The Neuropathogenesis Unit (NPU) was established within the Institute of Animal Health.
- The Unit of Animal Genetics closed. The Poultry Research Centre (see 1947 above) and the Animal Breeding Research Organisation (see 1947 above) combined with the Institute of Animal Physiology at Babraham (see 1896 University of Cambridge at 1948) to form the Institute of Animal Physiology and Genetics Research (IAPGR, see 1985). The ABRO staff were progressively relocated onto the PRC site at Roslin to form the Edinburgh Research Station of the IAPGR.
- 2008 The Roslin Institute became part of the University of Edinburgh again, within the Royal Dick Veterinary School.

The university currently has farms at Easter Bush and Langhill, now used by the veterinary school as agriculture is no longer offered.

1791 Veterinary College of London

What is now the Royal College of Veterinary Surgeons grew out of a committee of the Odiham Agricultural Society (see 1783), under the guidance of the celebrated French veterinary surgeon, Charles Vial de St Bel (1753-1793). His early death caused some problems until he was replaced in 1794 by Edward Coleman (1765-1839).

1826 Re-named the Royal College of Veterinary Surgeons.

- 1923 The Institute of Animal Pathology was established at the College.
- 1931 The Institute of Animal Pathology was brought under Agricultural Research Council support.
- 1949 It became part of the University of London (see 1898 University of London at 1949) as the Royal Veterinary College.

1793 Board of Agriculture

This first Board of Agriculture or, in full, Board for the Encouragement of Agriculture and Internal Improvement, was established to prepare a county by county survey on the state of agriculture. It aimed to foster innovation in farming and stimulate agricultural development although was hampered from the start by erroneous suspicions in the farming world that it was a branch of government. In fact, it received relatively little public funding and still less interest. Its first president and chief architect was John Sinclair (1754-1835), who introduced the word 'statistics' into the English language, in his vast, pioneering work, *Statistical Account of Scotland*.

The main achievement of the Board was the county surveys and suggested improvements published under the title *General Views*.

Bedford (1808) Thomas Batchelor (1775-1838)

Berkshire (1809) William Mavor (1758-1837)

Buckinghamshire (1810) Rev. St John Priest (1758-1818)

Cambridge (1811) William Gooch

Channel Islands² (1815) Thomas Quayle

Cheshire (1808) Henry Holland

Cornwall (1794) Robert Fraser (-1822)

Cornwall (1811) George Worgan (1757-1838)

² Referred to as 'islands on the coast of Normandy subject to the crown of Great Britain'.

Cumberland John Bailey (1750-1819) and George Culley

Cumberland, Durham, West and North Yorkshire (1810) John Bailey

Derbyshire, Vol. I (1811) John Farey (1766-1826)

Derbyshire, Vol. II (1813) John Farey

Derbyshire, Vol. III (1817) John Farey

Devon (1794) Robert Fraser

Devon (1808) Charles Vancouver (-1813)

Dorset (1799) William Stevenson (1772-1829)

Durham (1810) John Bailey

Essex (1795) Charles Vancouver

Essex, Vols I and II (1807) Arthur Young

Gloucestershire (1807) Thomas Rudge

Hampshire and Isle of Wight (1813) Charles Vancouver

Herefordshire (1805) John Duncomb

Hertfordshire - Arthur Young

Hertfordshire, Suffolk and Lancaster (1795)

Huntingdon (1793) Thomas Stone (-1815)

Isle of Man (1794) Basil Quayle (1765-1816)

Isle of Man (1812) Thomas Quayle

Kent and Staffordshire (1796)

Lancashire (1815) R W Dickson, revised by William Stevenson

Leicester and Rutland (1798) John Billingsley

Lincoln (1813) Arthur Young

Middlesex (1793) Thomas Baird

Middlesex (1807) John Middleton

Norfolk (1796) Nathaniel Kent (1737-1810)

Norfolk (1804) Arthur Young

Northampton (1809) William Pitt (1747-1823)

Northumberland (1794) John Bailey (1750-1819)

Northumberland (1794) John Bailey and George Culley

Northumberland, Westmorland and Suffolk (1794)

Nottingham (1798) Robert Lowe

Oxford (1794) Richard Davis

Shropshire (1803) Joseph Pymley

Somerset (1798) John Billingsley

Suffolk (1813) Arthur Young

Surrey (1805) William Stevenson

Sussex (1813) Arthur Young

Yorkshire - John Shirreff (1759-1818), Robert Brown and William Marshall.

Warwick (1815) Adam Murray

Wiltshire (1813) Thomas Davis (1749-1807)³

Worcester (1810) William Pitt (1849-1823)

Yorkshire, East Riding (1812) Henry Eustasius Strickland

Yorkshire, North Riding (1800) John Tuke

Yorkshire, West Riding (1799) Robert Brown (1757-1831)

Aberdeen (1811) George Skene Keith (1752-1823)

Angus, Forgarshire (1813) James Headrick

³ The Wiltshire volume is generally acknowledged as the best of the county reports.

Argyle (1798) John Smith (1747-1807)

Ayr (1793) Col. William Fullarton (1754-1808)

Ayr (1811) William Aiton (1760-1848)

Banff (1812) David Souter

Berwick (1794) Alexander Lowe

Berwick (1809) Robert Kerr

Bute (1816) William Aiton

Caithness (1812) John Henderson

Clydesdale (1798) Arthur Young

Clydesdale (1806) John Naismith

Dumbarton (1811) Rev.Andrew Whyte and Duncan Macfarlan

Dumfries (1812) William Singer (-1840)

East Lothian (1794) George Buchan Hepburn

East Lothian (1805) Robert Somerville

Fife (1800) John Thomson

Hebrides and Western Isles (1811) James Macdonald

Inverness (1813) James Robertson (-1812)

Kincardineshire (1818) George Robertson (1750-1832)

Kinross and Clackmannon (1814) Patrick Graham

Midlothian (1795) George Robertson

Nairn and Moray (1811) William Leslie

Peebles (1802) Charles Findlater

Perth (1799) James Robertson (-1812)

Renfrewshire (1812) John Wilson

Roxburgh and Selkirk (1798) Robert Douglas (1747-1820)

Stirlingshire (1812) Patrick Graham

Sutherland (1812) John Henderson West Lothian (1811) James Trotter

Monmouth (1815) Charles Hassall North Wales⁴ (1811) Walter Davies (1761-1849) South Wales⁵ (1815) Walter Davies

Queen's County (1801) Sir Charles Coote Co. Wicklow (1801) Robert Fraser

1822 The Board was disbanded and the role was picked up by the Royal Agricultural Society (see 1838) as Sir John Sinclair and others had by now decided that a private institution would be more effective than a quasi-governmental body.

1793 Canterbury Agricultural Society

Later called the Canterbury Farmers' Club, this organisation worked particularly closely with Wye College (see 1896), linking research with the farming community. One of the oldest of such societies, records were unfortunately destroyed in the blitz.

Regular monthly meetings are still held in Sittingbourne, Kent, with dinner followed by a guest speaker.

1793 Cornwall Agricultural Society

The society took up the name Royal Cornwall Agricultural Association in 1858 and the annual show is now held at Wadebridge.

⁴ Anglesey, Caernarvon, Denbigh Flint, Meirionydd and Montgomery.

⁵ Brecon, Caermarthen, Cardigan, Glamorgan, Pembroke and Radnor.

1795 Farmers' Club

This club is not to be confused with the Farmers' Club (see 1842) with premises in Whitehall Court, initiated by William Shaw.

It was established, according to a short history of the association published in the late nineteenth century, by 'a body of Noblemen and Gentlemen who were earnest and zealous supporters of Agriculture ... to encourage and advance the improvement of the science and practice of Agriculture.' They originally met at the Thatched House Tavern, St James Street, moving to the Clarendon Hotel, Bond Street in 1862 and, after 'great dissatisfaction with the dinners' at the Clarendon, moved on to the St James Hotel, Piccadilly in 1865.

There were 19 original members including the Duke of Buccleugh [sii], Arthur Young (see 1768), and Thomas Coke (see 1776). Subsequently, a considerable proportion of the membership was MPs but by the midnineteenth century it had declined into little more than a social club. Into the 21st century, it continues to meet periodically as a parliamentary dining group.

1796 Peterborough Agricultural Society

1970 Merged into the East of England Agricultural Society (see 1970).

1797 Herefordshire Agricultural Society

The society was formed after the publication of John Clark's *General views on agriculture in the county of Hereford* for the Board of Agriculture which pointed to the lack of a local society. It is now incorporated into the Three Counties Agricultural Society with the major event being the annual Three Counties Show at Malvern, Worcestershire.

1798 The first county show was held in Hereford, with the show being held at the Three Counties Showground, Malvern since 1958.

- 1799 Agricultural Magazine, a somewhat more ordered publication than Arthur Young's Annals of Agriculture (see 1768 Arthur Young).
 - 1811 Publication ceased.

1799 Newark Agricultural Society

1868 Became the Newark and District Show Society.

Annual shows are still held at the Newark Show Ground, Nottinghamshire.

1799 Smithfield Cattle and Sheep Society

This Society was established by John Wilkes of Derbyshire and launched at the Woburn Sheep Shearing of 1799 under the presidency of Francis Russell, 5th Duke of Bedford (1765-1802). A key element of the Society's remit was to educate on breeding, livestock husbandry and the impact of a variety of feeding regimes. It led to the Royal Smithfield Club.

- 1799 The first show was held at Wootton's Livery Stables, Smithfield.
- 1862 The Royal Agricultural Hall was erected in Islington to house the Smithfield shows which remained there until 1938. The building suffered a sad decline, part of it ending up as a bingo hall in the mid-1960s, but was saved from demolition and is now Grade II listed and houses the Business Design Centre.
- 1938 The last show before the war was held at the Royal Agricultural Hall.
- 1949 Shows started again, now held at Earls Court.
- 1960 Re-named the Royal Smithfield Club on the granting of royal status by the Queen.
- 2004 The last show was held at Earls Court. Since then, they have moved around the country.

1799 Westmorland County Agricultural Society

The society is dedicated to promoting education in agriculture, horticulture, rural crafts, forestry and conservation with the focus on a radius of 55 miles of the showground at Lane Farm, near Milnthorpe, Cumbria.

The society promotes a link programme with schools and colleges and administers the Chris Lambert Bursary which is available to students living within the Society's area who wish to travel and broaden their long standing Society secretary, until his death in 1998.

1800 Thomas Bates (1775-1849)

Bates was born in Northumberland and remained largely associated with the county throughout his life. His outstanding agricultural and, in particular, cattle breeding and improving career was established when he purchased stock from the Colling Brothers' (see 1780s) in 1800, including their first 100 guinea shorthorn cow.

- Bates committed his ideas to paper in: 'An address to the board of agriculture and to the other agricultural societies of the kingdom on the importance of an institution for ascertaining the merits of different breeds of livestock, pointing out the advantages that will accrue therefrom to the landed interest and the kingdom in general'.
- 1809 Keen to gain knowledge beyond practice, he spent three winters from 1809 studying at the University of Edinburgh (see 1790).
- He established his famous stock line with the purchase of *Duchess* for 185 guineas at the Colling sale of 1810 (see 1780s). He went on to cross his cattle with West Highlands.
- One of his entrants to the first English Agricultural Society (now Royal Agricultural Society of England, see 1838) show in 1939, *Duke of Northumberland* was described in the *Farmers' Magazine* as 'one of the finest bulls ever bred.'
- 1849 His obituaries noted a forceful character with a love of

public speaking, a prolific commentator on agricultural politics, 'gentle and yielding' in agreement, 'untiring in his warfare' in opposition (Farmers' Magazine).

Bates never married, an early fiancée dying of consumption, and has no direct descendants but there is a wide extended family through his brother, John Moore Bates's five sons and his great-nephew, Cadwallader Bates, wrote his biography in 1897: *Thomas Bates and the Kirklevington Shorthorns*.

1800 Farmer's Magazine was published in Edinburgh. It had a Scottish bias but did embrace English reports. It folded in 1825. Not to be confused with the English paper of the same name (see 1832 Mark Lane Express at 1834).

1801 Bedfordshire Agricultural Society

1971 Merged into the East of England Agricultural Society (see 1970).

1803 Sir Humphrey Davy (1778-1817)

The eminent chemist, better known as the inventor of the Davy lamp for coal miners, was commissioned by the Board of Agriculture (see 1793) to give a series of lectures which took place annually from 1803 to 1812. They were later published as *Elements Of Agricultural Chemistry In A Course Of Lectures* with was also published in America and translated into French, German and Italian, remaining the standard, if limited, text for half a century. He encapsulated the importance of his discipline to agriculture: 'It is scarcely possible to entry upon any investigation in agriculture without finding it connected, more or less, with doctrines or elucidations derived from chemistry.'

Davy's great service to agriculture was in giving it a prestige which it had hitherto lacked, in the time he, as one of the most distinguished scientists of his age, was seen to be devoting to it.

1803 Rusheyford Experimental Society

This group was set up in County Durham by, according to the Board of

Agriculture county survey, 'a few intelligent agriculturalists ... for the purpose of trying various experiments on their respective farms.'

1805 Tyneside Agricultural Society

1981 Developed into its current incarnation as the Tynedale Agricultural Society running the annual Northumberland County Show at Tynedale Park, Corbridge.

1806 House of Sutton, Reading, Berkshire

The now major seed company was established by John Sutton (1777-1863) and developed into Sutton & Sons by his sons, Martin and Alfred.

1840 Seed testing laboratory and trials beds were established.

Martin John Sutton (1850-1913) led further scientific progress collaborating with the Henri de Vilmorin (1843-1899) and John Voelcker (1854-1937).⁶ He also bred cattle, sheep and on his home farm. He was on the council of the RASE and promoted the need for systematic agricultural education. His obituary in *The Times* described him as 'one of the most prominent agriculturalists of his time.'

- 1890s The company provided financial support to the Agricultural Department of University College, Reading.
- 1994 The agricultural business was acquired by Limagrain, founded in France in 1946, the largest seed company in Europe and now part of the international Vilmorin group.

1806 Wolsingham Agricultural Society

The Wolsingham and West Valley Agricultural Show is apparently the oldest show in England and is still run annually near Bishop Aukland, County Durham.

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⁶ See his father's entry at 1843.

1807 Evans and Ruffy Farmers' Journal

This was the first newspaper to be exclusively devoted to agriculture and declined only after 1825 when Benjamin Holditch ceased his editorial role. It folded as an independent title in 1832 when it was incorporated into the general publication *Bell's Weekly Messenger* which ran from 1796 to 1896.

1809 John Claudius Loudon (1783-1843)

The Utility of Agricultural Knowledge to the Sons of the Landed Proprietors of England, and to Young Men Intended for Estate Agents With an Account of an Institution formed for Agricultural Pupils in Oxfordshire. By a Scotch Farmer and Land-Agent, resident in that County was published by Loudon, a year into a relatively short lived but widely reviewed educational project.

Loudon, better known for his work in horticulture and landscape design, set up what is sometimes referred to as an early 'agricultural college' on the Great Tew estate in Oxfordshire. This was, however, little more than taking a small number of working pupils into his home, an account of which is to be found in the above pamphlet. The venture ran from 1808 to 1811. His wife, Jane (1807-1858) was also a gardening writer of considerable note.

1811 Oxfordshire Agricultural Society

1978 The society wound up and the Oxfordshire Agricultural Society Trust (OAST) was established from the remaining assets to support projects promoting agricultural efficiency in Oxfordshire.

1812 Glasnevin / National Botanic Garden, Dublin

The National Botanic Garden of Ireland (*Garraithe Náisiúnta na Luais*) was founded in 1795 and the training of horticultural students dates from 1812. The educational function runs in an unbroken line through to the current institution of the College of Amenity Horticulture, Dublin. This was a separate enterprise to the Glasnevin Model Farm (see 1838).

1813 Border Union Agricultural Society

The society was formed at Kelso under the chairmanship of James Innes-Ker, 5th Duke of Roxburghe (1736-1823). Innes-Ker had not come to the inheritance of Roxburghe and Floors Castle in a straight forward manner, and there were several other purported claimants to the title. Once installed, he ensured the succession of his own line by fathering a child at the age of 80.

The main event is the annual BUAS show at Kelso, Scottish Borders.

1815 Importation Act

More commonly known as the Corn Laws, this Act imposed a tariff on imports thus keeping the cost of home-grown grain high.

- 1836 Anti-Corn Law Association formed in London to promote free trade and abolition of the laws.
- Anti-Corn Law League essentially a reincarnation of the failed London Association set up in Manchester led by Richard Cobden (1804-1865) and John Bright (1811-1889). Cobden rallied Bright out of mourning for his first wife and into a life-long radical partnership with: 'There are thousands of homes in England at this moment where wives, mothers and children are dying of hunger ... I would advise you to come with me, and we will never rest till the Corn Laws are repealed.'
- 1846 Importation Act the Corn Laws were repealed. The impact on agricultural development was that there was a renewed impetus to technical development to improve production yields and efficiency.

1819 William Grisenthwaite

A new theory of agriculture in which the nature of soils, crops and manures is explained, many prevailing prejudices are exploded, and the application of bones, gypsum, lime, chalk, etc. is determined on scientific principles. This obscure book, few copies of which remain, was published in Norfolk. It contained notable scientific exposition

not generally reported for another couple of decades by the likes of Liebig (see 1840).

1819 Scarsdale and High Peak Agricultural Society

This society, after several name changes, became the Bakewell Agricultural and Horticultural Society which today runs the Bakewell Show.

1821 Bannow Farm School, Vernegly, Co. Wexford

This school, founded on about 40 acres by a Church of Ireland rector, the Reverend William Hickey (c1787-1875) who wrote extensively under the pen-name Martin Doyle. He drew on the ideas of Philip von Fellenberg (see Templemoyle, 1827) who ran a farm school at Hofwyl and Johann Pestalozzi (1746-1827), better known for early years education, but who had for a short time operated a farm school at Neuhof, both in Switzerland. Some forty acres was donated by Samuel (or Thomas?) Boyce of Bannow House for a school curriculum based on 'the best practical treaties on agriculture'. Boys aged from around 13 to 20 years were taken on five year apprenticeships at a cost of 30 guineas.

It closed through lack of funding but influenced the founders of the longer-lived Templemoyle Agricultural Seminary, near Derry (see 1827). In a report in the Minute Books of the Royal Dublin Society shortly before the school's closure it was noted that 'It is a matter of heart-felt satisfaction that Protestants and Catholics, pupils, tradesmen and servants have been most cordially associated without, on either side, the least compromise of principle or any degree of indifference on the subject of religion.'

1821 North West of Ireland Agricultural Society

Established around the Derry and Limavady area.

- 1823 A monthly publication was produced.
- 1827. The society was instrumental in the establishment of

Templemoyle Agricultural Seminary (see 1827), the first substantial agricultural school in the English speaking world.

2012 The current incarnation of the society is the Co. Londonderry Agricultural Show Society, formed in 2012.

1822 Cruel Treatment of Cattle Act

More properly entitled An Act to Prevent the Cruel and Improper Treatment of Cattle, this was the first animal welfare legislation in the UK, introduced by Richard Martin (1754-1834), known as Humanity Martin, for his work against animal cruelty.

1825 Rutland Agricultural Society

The society continues to run an annual show near Oakham.

1826 British Farmers' Magazine

This periodical was edited for the first ten years by the Durham shorthorn authority, the Reverend Henry Berry (d.1837).

- Taken over by the Farmer's Magazine (see 1832 Mark Lane Express) when publication changed from monthly to quarterly.
- 1881 Publication ceased.

1826 Society for the Diffusion of Useful Knowledge

This society was established by Henry Brougham (1778-1868) and Charles Knight (1791-1873) for the dissemination of practical and accessible scientific knowledge in affordable form. It was not specific to agriculture but produced a Farmers' Series by the leading veterinarian, William Youatt (1776-1847), the abbreviated titles of which were The Horse (1831), Cattle (1834), Sheep, including The Mountain Shepherd's Manual (1837), Husbandry (1939), The Dog (1845) and The Pig (1847). There was also a Manual of Husbandry produced in 1834 and a Dictionary of the Farm in 1844.

1827 Templemoyle Agricultural Seminary, near Derry

This agricultural school was founded in 1827 with the support of the North West of Ireland Farming Society who first mooted the idea at a meeting in 1823 with the encouragement of George Vaughan Sampson (1763-1827) who was instrumental in the founding of that Society. It was the first substantial agricultural school in the English speaking world. It was based on the London Grocers' estate in the area then known as the Muff / Moigh / Mough which changed its name to Eglinton in 1858 after a visit by the 13th Earl of Eglinton. Its founders were heavily influenced by the ideas of Philipp Emanuel von Fellenberg (1771-1844), who set up an agricultural school for boys at Hofwyl, near Bern in Switzerland, his wife running a companion school for girls. They also looked at the work of the short-lived Bannow Farm School in Co. Wexford (see 1821). A sister school, at Fallowlea, for the education of the sons of the wealthy was also started. It must be said that the education of poor and wealthy boys at Templemoyle and Fallowlea respectively was, however honourable the idea, not of equal standing.

Fallowlea failed as the wealthy preferred to send their sons to England for education.

c1866 The school closed.

The site, including original buildings, is now occupied by the Templemoyle Care Home to be found on Whitehill Road, Eglinton.

- 1828 Quarterly Journal of Agriculture published in Edinburgh and incorporating the *Prize Essays and Transactions* of the Highland and Agricultural Society (see 1784).
 - 1835 Became the *Journal of Agriculture*. In the 1830s and 1840 the journal carried some notable original material, particularly on agricultural chemistry.
 - Became the *Country Gentleman's Magazine* with a decreasing agricultural content.

1831 British Association for the Advancement of Science

This body was founded on the German model (Gesellschaft Deutscher Naturforscher und Ärzte - the Society of German Researchers and Physicians, est. 1822), by the Reverend William Vernon Harcourt⁷ (1789-1871) largely due to disillusionment with the elitism and innate conservatism of The Royal Society (see 1622). Also influential was Prof. Charles Babbage's Reflections on the Decline of Science in England. The universities were represented at the inaugural meeting in 1831 by Charles Daubeny (see 1840) from Oxford. It is now known as the British Science Association.

- 1912 Agriculture was not recognised as a distinct section until 1912, when it became Section M under Sir Thomas Middleton (1863-1943), but there had been links with agricultural research from the outset through the established sections on geology, zoology and botany with Liebig's Organic Chemistry in its Application to Agriculture and Physiology (see 1840) being dedicated to the Association.
- 1973 Those of a certain age will well remember the Secretary of the Association appointed in 1973: Dr Magnus Pyke (1908-1992). Although born and schooled in London, he had studied Agriculture at McGill University, Montreal. He was a principal scientific officer with the Ministry of Food, writing the influential *The Manual of Nutrition* (1945), was nutritional adviser to the Allied Commission for Austria in Vienna after the War and from 1949 to his retirement in 1973 worked for the Distillers Company in yeast research, largely as manager of the Glenochil research station in Clackmannanshire. He came to wider public notice as Secretary of the BAAS who were asked to put forward someone to explain scientific matters to the lay person on television.

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Not to be confused with his prominent liberal politician son of the same name (1827-1904).

1830 William Cobbett (1763-1835)

Although more concerned with political reform than education and research, one of his most famous works, *Rural Rides* (first published in 1830) broadly disseminated the state of English agriculture and its workers. He was also a keen improver and his experiments with maize (which he encouraged for human consumption) and straw (by which he hoped to rebuild the straw-plait industry thereby providing winter employment) were written up in *The Woodlands* (1825), *Treatise on Corn* (1828) and *The English Gardener* (1829).

1830 Liverpool Agricultural Society

1848 Merged with the Manchester Agricultural Society (see 1767).

1830 Phillip Pusey (1799-1855)

A reforming agriculturalist and Tory MP, he is included at this date when he first entered Parliament. Pusey remained in the Commons, with brief breaks, until 1852 and was described by Disraeli as 'one of the most distinguished country gentlemen who ever sat in the House of Commons.'

- 1838 One of the founders of the Royal Agricultural Society.
- Journal of the Royal Agricultural Society of England started Pusey's editorship.
- Pusey's was a progressive and practical farmer and his most notable contribution was the development of a system of using water meadows to support flocks of sheep and early-maturing lambs which was reported in 1849 in his book *On the Theory and Practice of Water Meadows*. He was an early advocate of the use of earthenware drainpipes for field drainage.
- 1851 Chairman of the agricultural implement section of the Great Exhibition.

1831 Suffolk Agricultural Association

The main annual event of the Suffolk Show moved around the county for the first century and more, moving to its current permanent showground in Ipswich in 1960.

1832 Mark Lane Express and Agricultural Journal

Founded by William Shaw (see 1832), Cuthbert William Johnson (see 1842), the Lincolnshire farming brothers, John and Joseph Rogerson, and Dr J Blackstone. The *Mark Lane Express* became the most influential of the early farming newspapers and unlike much of the agricultural press at the time, was Whiggish in politics and firmly directed toward the tenant farmer.

- The same publishers also produced the *Farmer's Magazine* (not to be confused with the Scottish publication of the same name which had folded in 1825 see 1800). The *Farmer's Magazine* ran from 1834-1881.
- 1840 Johnson & Shaw's Farmers' Almanac, an annual publication, gave a comprehensive review of events, issues and developments of the previous year. Publication ceased in 1872.
- 1846 The Farmer's Magazine took over the British Farmers' Magazine (founded in 1826) and they ran alongside each other until both folded in 1881.
- Henry Corbet (1820-1878) took over as editor when Shaw left for Australia to avoid bankruptcy, retaining the position until 1875. Corbet was of the view that agricultural progress was hindered by political factors, notably a lack of a formal tenant right system, in contrast to John Chalmers Morton's (writing for the *Agricultural Gazette*, see 1844) emphasis on scientific developments and education.
- Absorbed the Gardeners' and Farmers' Journal (see 1847).

The date of cessation of the Mark Lane Express is undetermined.

1832 William Shaw (1797-1853)

Shaw is included at this date, being the founding date of the *Mark Lane Express* (see 1832). Shaw had attended Wadham College, Oxford and was called to the bar in 1833. He had at some point farmed in Wiltshire and was married, although separated from his wife for most of his life.

He was instrumental in establishing the Royal Agricultural Society (see 1838) and the Farmers' Club (see 1842).

As well as involvement with journals he published, with Cuthbert Johnson (see 1842), *Principles of Agriculture*, an English edition of Albrecht von Thaer's original German work *System der Landwirtschaft*.

Shaw advocated for a reformed system of tenant right and, with Henry Corbet (see 1832), produced a digest of the evidence on tenant right (see 1848). His work was marked by his peers with a presentation of a service of silver plate in 1850, when he was described as 'the Cobden of Agriculture'. In 1849 he stood, unsuccessfully, for parliament as a tenant farmers' candidate in Hampshire.

He was one of the founders, in 1840, and managing director of the Farmers' Insurance Company. He was also managing director of the Farmers' and Graziers' Mutual Cattle Insurance Association, founded in 1844. He fell into financial difficulties with this business and also in connection with a project to relocate the Metropolitan Cattle Market in Islington instead of Smithfield. He was thus forced to flee to Australia in 1852. He died penniless in a remote gold-prospecting area in 1853. The circumstances of his last years and death have meant that Shaw did not receive the recognition as one of the key figures in early Victorian agricultural opinion that his achievements merit.

1833 Leicestershire Agricultural Society

The society still runs the annual show at Melton Cattle Market.

1833 Penrith Agricultural Society

The annual show was originally held in land by Croft House, Penrith

and continues to date at Brougham Hall Farm in what is now Cumbria.

1833 Royal Jersey Agricultural and Horticultural Society

The founding meeting was chaired in St Helier by Major General Thornton, although early minutes referred to a previous agricultural society which date back to c1790.

- 1834 Royal patronage given by William IV.
- 1884 The permanent Springfield showground was established.

1833 James Smith (1782-1867)

Smith was primarily involved in textiles and was based at one of the largest mills in Scotland, the Deanston Works near Stirling, held by his mother's family. He studied mathematics at Glasgow University and was apprenticed to Richard Arkwright. He maintained a strong interest in agricultural alongside his industrial work, largely through his uncle (and guardian), who farmed 200 acres nearby. In 1815 he won a prize from the Highland Society for a mechanical reaper design, a further model of which was awarded a gold medal by the Imperial Agricultural Society of St Petersburg.

In 1823 he took the lease of Deanston Farm and his book, *Remarks on Thorough Drainage and Deep Ploughing* was first published in 1833 and revolutionised field drainage, and the expression 'Deanstonization' was coined. His work influenced the public funding of land drainage in the 1840s (under the Public Money Drainage Acts 1846-56).

1834 Agricultural School for Orphans, Fearnhead, Cheshire

This school operated from the home farm and estate of James Cropper (1773-1841), a noted abolitionist, who marked his allegiance by opening the school on 1st August 1834 to coincide with the coming into force of the Slave Emancipation Act.

It is unclear what happened to the school after Cropper's death in 1841.

1835 Central Agricultural Society for the Protection and Encouragement of Agriculture

The society was formed at a meeting in Aylesbury during the Smithfield show week with a membership of high Tory aristocracy, political economists, country bankers and 'assorted' tenant farmers. It was, despite its title of agricultural 'encouragement', essentially a political body of a Tory, protectionist colour, described by William Shaw (see 1832) as 'a political abortion, the offspring of a confederacy of bankrupt landowners ... and merciless currency mongers.' A key figure in the society was that enemy of liberalism, the Marquis of Chandos (1797-1861). The society wound up with the establishment of the Royal Agricultural Society of England in 1838.

1836 Fermanagh Farming Society

The Society was founded under the chairmanship of John Creighton at a meeting in the Court House, Enniskillen. It continues to run the annual county show in Enniskillen. See Samuel B Morrow's A Landlords' Legacy: the farming societies' contribution to development in Co. Fermanagh in the nineteenth and twentieth centuries (2014).

1836 Remarks on the Present State of Agriculture

A Select Committee was called under the Marquis of Chandos 'for the consideration of the grievances and depressed state of the agriculturists.' The main output of the committee was Charles Shaw-Lefevre's (later Lord Eversley, 1794-1888) report of the above title.

1836 Clark Hillyard (1767-1842)

The *Summary of Practical Farming* was published in 1836 by Hillyard, a Northamptonshire tenant farmer. He had first produced the work in 1814 as notes for his son on finding, in his own words in the preface of the 1844 edition, that the 'agricultural communications from theoretical farmers ... proving that they know better how to wield the pen than to guide the plough and to cultivate the land.'

1836 Friend's Agricultural School, near Moira, Co. Down

Also known as the Brookfield Agricultural School, this Quaker school was founded to combine basic agricultural training for boys, with the girls learning domestic arts along with dairy and poultry skills. A traditional school curriculum was also covered. Quaker links ended in 1922 and the school closed in 1930.

The derelict buildings are to be found down Halfpenny Gate Road, off the Lisburn Road out of Moira.

1837 Huntingdonshire Agricultural Society

1970 Merged into the East of England Agricultural Society (see 1970).

1837 Long Sutton & District Agricultural Society, Lincolnshire

Along with a history of annual shows, the society awards travel scholarships to individuals or groups of young people from the Long Sutton area to help finance agricultural study visits. In addition, the Society awards grants to local schools and colleges to assist with visits to places of agricultural interest in the British Isles.

1970 The society became affiliated to the East of England Agricultural Society, itself formed from the merger of the Cambridge, Huntingdon and Peterborough societies, as the viability of smaller shows declined.

1837 Yorkshire Agricultural Society

Formed with education as a key element of its remit, the main event is the annual Great Yorkshire Show near Harrogate, North Yorkshire.

As part of its educational remit, along with the Show, schools activities and other events, the YAS offers grants for academic research in agricultural or horticultural production, improvement or protection of the rural environment, farm animal welfare, forestry, novel crops or novel products from agricultural or horticultural sources which will be beneficial, in particular, to Yorkshire and/or the North East of England.

1838 *Transactions* were published for a number of years but ceased to be a serious journalistic source from the 1860s.

1838 Cheshire Agricultural Society

The society was founded under the first presidency of Stapleton Cotton, First Viscount Combermere (1773-1865), a committed Tory and opponent of Catholic emancipation, the Reform Bill and the repeal of the Corn Laws. Combermere persuaded some of his fellow Cheshire landowners to establish a series of competitions to encourage better farming methods and to encourage farmers to 'improve the moral and industrious way of life'. The annual show now runs at Tabley.

The Society administers the John Platt Scholarship, offered since 2011. This is a £2,000 travel scholarship available to any young person (aged 18 - 35) residing or working in Cheshire, who wishes to improve their education and/or experience through an opportunity to travel. The scholarship was created in recognition of John Platt (1930-2013) who supported the Cheshire agricultural community through his many roles including chairing the Society for nearly 30 years, and as a long-standing chair of governors at Reaseheath College (see c1883 Cheshire Dairy School). Applications are particularly favoured with regard to new technology, new or alternative farming methods, diversification, utilisation or sustainability of natural resources and improved profitability within Cheshire agriculture.

1838 Glasnevin Model Farm, near Dublin

John Pitt Kennedy (1796-1879), the first inspector-general of the Irish National School system, acquired 60 acres of land for the purpose of establishing a model farm. Kennedy travelled to agricultural schools in Germany, Switzerland and Belgium to further his understanding. It was set up to train National School teachers who were taught to instruct practical and innovative methods of agriculture as well as reading, writing and arithmetic. It also took agriculture students, in addition to the student teachers.

1853 The school became the Albert National Agricultural Training Institution.

- By this date the Board of National Education in Ireland had set up 27 Model Agricultural Schools, 48 Ordinary Agricultural Schools and was delivering agricultural instruction in 59 workhouse schools.
- 1926 Its successor, the Albert Agricultural College was taken over by the Faculty of Agriculture, University College, Dublin by which time, of course, it was no longer in the UK, so we leave its story at this point.

1838 John Morton (1781-1864)

Morton, was born in Fifeshire. His most influential work, On the Nature and Property of Soils, their connection with the Geological Formation on which they rest, their best means of permanently increasing their productiveness and on the rent and profits of agriculture, appeared in 1838.

He developed the Whitfield Example Farm on the Tortworth estate of Thomas Reynolds-Morton, Lord Ducie (1766-1840) in Gloucestershire, where he was agent from 1818 to 1852. He also established the Uley Agricultural Machine Factory, developing the Uley cultivator. John Morton was the father of John Chalmers Morton (see 1844 *Agricultural Gazette*).

1838 Royal Agricultural Society of England

With the motto 'practice with science', a group of landowners, farmers and other interested parties met with a view of developing a more scientific approach to farming, under the name the **English Agricultural Society**, the first president being John Charles Spencer, Viscount Althorp (1782-1845). It, in part, revived the work undertaken by the Board of Agriculture which had folded in 1822 (see 1793).

Of the 250 subscribers listed in 1838 (published in the Farmer's Magazine), three were women.

One of the Society's objects in 1840 was the promotion of 'agricultural and environmental education, research and development and experimental work by maintaining and conducting a learned society and by publications, grants and other means', which it continues today. Its objective number 7 was 'to take measures as may be deemed advisable

to improve the Education of those who may intend to make the cultivation of the soil their means of livelihood'.

As with the Farmers' Club (see 1842), the controversy over the Corn Laws at the time of establishment prompted the Society to prohibit political debate, a factor which many, notably Henry Corbet (see 1832 *Mark Lane Express*), found to be both 'a joke' and a considerable hindrance to agricultural progress for a number of decades.

Although many of the Society's archives are lodged with the Museum of English Rural Life at Reading (see 1893 University College, Reading at 1951), some interesting papers and paintings are retained at the Society's base at Stoneleigh.

- The major event of the Royal Show ran annually from 1839 until 2009.
- 1840 Formalised by royal charter and re-named the Royal Agricultural Society of England (RASE), with the motto 'practice with science'.
- 1840 Journal of the Royal Agricultural Society of England started under the editorship of Philip Pusey (1799-1855).
- The Education Committee was established, providing prizes totalling £300 per year for performance in public exams in the subjects of import to prospective farmers, being mathematics, mechanics, chemistry, zoology, botany and geology.
- 1869 RASE examinations were introduced for 18-25 year olds in the Science and Practice of Agriculture, Agricultural Chemistry, Botany, Geology, Veterinary Science, Field Engineering and Surveying. There were written papers and a *viva voce*. It is for these exams that students at the Royal Agricultural College were prepared.
- A scheme was introduced for study at a lower level with scholarships to send boys from a small number of regional schools to the Royal Agricultural College or Glasnevin, Dublin.
- 1882 Eleanor Ormerod (1828-1901) became the first woman

scientist to be appointed to the Society, in the role of consulting entomologist.

See Nicholas Goddard's Harvests of Change: The Royal Agricultural Society of England 1838-1988 (1988).

1840 Charles Daubeny (1795-1867)

Daubeny was born near Cirencester and studied at Winchester and then Magdalen College, Oxford. He was described by Sir John Russell (1872-1965) as 'one of the most scholarly and versatile men of his time ... one of the most highly cultured of the men who have adorned the ranks of British agriculturalists.'

He was the first to hold the Sibthorpian Chair of Rural Economy, being appointed in 1840 (see 1840, University of Oxford). Prior to that he had been appointed to the Aldrichian Professorship of Chemistry (1822) and the Sherardian Chair of Botany (1834).

His Letters on Agriculture appeared in 1841.

1840 North Somerset Agricultural Society

The society was formed out of the North Somerset Ploughing Society by a small group of farmers, its sole purpose being to further agricultural development by communicating agricultural issues and providing a showpiece to the local general public. The annual show runs on the Tyntesfield Estate at Wraxhall, near Bristol.

1840 Justus von Liebig (1803-1873)

In 1840, the German von Liebig published his major work which had a wide influence on the increasing application of science to agriculture: Organic Chemistry in its Application to Agriculture and Physiology.

Liebig pioneered modern laboratory-oriented teaching methods and is regarded as one of the greatest chemistry teachers. Not always the case with scientists, he developed successful commercial sidelines to his work founding Liebig's Extract of Meat Company in London, with production facilities in Uruguay, the company later being renamed Oxo. Although earlier references can be found for the production of meat

extract, Liebig was certainly the first to stabilise the product allowing consistent, commercial production.

See Justus von Liebig: the chemical gatekeeper by William H Brock (2002).

1840 University of Oxford

The Sibthorpian Chair of Rural Economy was established under the terms of the will of botanist John Sibthorp (1758-1796) who had held the Sheridan chair of Botany at Oxford, as had his father before him, Sir Humphrey Waldo Sibthorp (1713-1797). Although he died in 1796 the chair was not appointed until 1840 (Charles Daubeny, see 1840) as the monies were first applied to publishing Sibthorp's *Flora Gracca*. The position is currently the Sibthorpian Professorship of Plant Science. Agricultural lectures were spasmodic for much of the nineteenth century, often little more than a termly history lecture on Roman Husbandry, with no agriculture recorded at all between 1867 and 1884.

Incomplete list of incumbents:

1840	Charles Daubeny (1795-1867)
1868-1882	Marmaduke Alexander Lawson (1840-1896)
1884-1890	Joseph Gilbert (1817-1901)
1890-1894	no post holder
1894-1897	Robert Warington (1838-1907)
1906-1925	William Somerville (1860-1932)
1925-1945	James Anderson Scott Watson (1889-1966)
1945-1970	Geoffrey Emett Blackman (1903-1980)
1970-1979	John Harrison Burnett (1922-2007)
	David Cecil Smith (1930-)
1990-2007	Christopher J Leaver (1942-)
2007-	Nicholas Harbert (1956-)

- 1884 Dr Joseph Gilbert of Rothamsted (see 1843 Rothamsted) was appointed to the Sibthorpian Professorship.
- The Institute of Forestry was established under Dr Wilhelm (often Anglicised to William) Schlich (1840-1925)⁸ as operations transferred to Oxford on the closure of the Forestry Training College at Cooper's Hill (see 1864 at 1885). A Chair of Forestry was established in 1919. In 1924 the Imperial Forestry Institute grew out of the Institute of Forestry which in 1939 became the Commonwealth Forestry Institute. Forestry ceased as a discrete department in 2002 and activities were absorbed into the Department of Plant Science.
- 1907 A full time professor of agriculture, William Somerville (see 1790) was appointed although agriculture (along with forestry) continued to be viewed as a craft, rather than an academic subject. Pass degrees were awarded in Agriculture in 1919 with honours degrees being conferred from 1945.
- The Institute for Research in Agricultural Economics was established under the directorship, until 1945, of Charles Stewart Orwin (1876-1955), adviser from 1905 to the hop farm of Guinness where he developed farm management accounting systems. Prior to this Oxford post, Orwin had been land agent for the Turnor estate in Lincolnshire. In the 1924-25 Rural Report of the Liberal Land Committee, he expressed radical views calling for the state ownership of all agricultural land, which he saw as the only means to implement widespread efficient farm management.
- The Farm Engineering Research and Testing Unit in the Institute of Agricultural Engineering, later the National Institute of Agricultural Engineering (NIAE) was established (see 1924).
- 1943 Wytham Farm, just north of Oxford, was acquired.

⁸ Schlich's five volume *Manual of Forestry*, first published in 1889 was the standard work in the field for well over half a century.

- 1950 The ARC Unit of Experimental Agronomy was founded under the directorship of Professor Geoffrey Emmet Blackman (1903-1980). In 1960 part of the operation was transferred to the Weed Research Organisation (see 1960). The Unit closed in 1970 with the remaining activity transferred to the Unit of Developmental Botany, Cambridge (see 1896 University of Cambridge at 1969).
- The ARC Unit of Plant Cell Physiology was founded to support the work of Dr Robert Brown (1908-1999) and was disbanded when he was appointed as Chair of Botany to the University of Edinburgh in 1958, with remaining staff being transferred to the John Innes Horticultural Institution (see 1910). Dr Brown was described in his obituary as one of the outstanding plant physiologists of the twentieth century and had lectured at Seale Hayne (see 1919) before going on to higher level studies at Imperial College (see 1875).
- 1970 Sir John Harrison Burnett (1922-2007) took the Sibthorpian Chair of Rural Economy and soon amalgamated agriculture and forestry into the university's only applied science department, the Department of Agricultural and Forest Science.
- 2001 The tenancy of the 425 ha Wytham Farm was taken over by the FAI (Food Animal Initiative), a sustainable farming research and development organisation. It is now one of the Environmental Change Network stations (see 1992).

1841 Dorchester Agricultural Society

The society still runs the annual Dorset County Show.

1841 Royal Agricultural Improvement Society of Ireland

The society was established under the presidency of the Duke of

⁹ The son of the notable plant physiologist, Vernon Blackman (1872-1967) who had worked largely at Imperial College.

Leinster to encourage by reward, planting, building cottages and reclaiming waste land, and to local farming societies for the best cultivated land, crops, drainage works, etc., and to labourers with the neatest and best kept cottages with plots of land attached. The society published the quarterly *Agricultural and Industrial Journal* to promote agriculture and industrial.

On the impetus of George Villiers, 4th Earl of Clarendon (1800-1870) the Society appointed itinerant lecturers to advise farmers. 'Lord Clarendon's practical instructors in husbandry' seem to be the earliest evidence of an agricultural extension service in the UK.

1842 Agricultural Chemistry Association of Scotland

This body was established largely due to the work of Paisley born James Johnston (1796-1855) whose professional life was primarily at the University of Durham and whose agricultural work culminated in the *Catechism of Agricultural Chemistry and Geology* (pub. 1845). There is some evidence that the association was dissolved prior to Johnson's death in 1855.

1842 Cuthbert Johnson (1799-1878)

Cuthbert Johnson was a Kent-born barrister but became more widely known as an agricultural writer and expert on fertilisation.

- He won a prize from the 'old' Board of Agriculture (see 1793) on using salt as a manure.
- He founded the *Mark Lane Express* (see 1832) with William Shaw (see 1832).
- 1837 He wrote The Advantages of Railways to Agriculture.
- 1841 Started the annual *The Farmer's Almanac and Calendar* with William Shaw.
- He produced the Farmers' Encyclopaedia and Dictionary of Rural Affairs: embracing all the most recent discoveries in agricultural chemistry adapted to the comprehension of unscientific readers. The last seven words of the subtitle indicate the importance of

this book in attempting to disseminate information beyond the educated elite to the working farmer.

1843 This was followed in 1843 by An Agricultural Chemistry for Young Farmers.

Not confined to rural interests, he was twice Commissioner for Metropolitan Sewers and campaigned for what culminated in the Public Health Act 1848.

1842 Henry Stephens (1795-1874)

The Book of the Farm: Detailing the Labours of Farmer, Farm-Steward, Ploughman, Shepherd, Hedger, Cattle-Man, Field-Worker, and Dairy-Maid was produced in 1842.

This book runs to many chapters, the first of which is entitled 'The difficulties which the young farmer has to encounter at the outset of learning practical husbandry.' Chapter two is then, helpfully, 'The means of overcoming the difficulties.' and chapter ten: 'The kind of education best suited to young farmers'.

It was reprinted three times in the UK and twice in America and described by Dr E J T Collins, then associate director of the Institute of Agricultural History at Reading University, in his foreword to C A Jewell's *Victorian Farming* (pub. 1980) as 'the leading practical text of its day.'

1842 The Farmers' Club, London

The Farmers' Club was set up on the initiative of William Shaw (see 1832), Shaw of the Strand as he is referred to in early club literature, as a platform for debating and exploring agricultural issues, initially drawing in members of the Smithfield Club (see 1799) and the Royal Agricultural Society of England (see 1838). The inaugural meeting was held at the Hereford Arms, King Street on 8th December with a formal opening at the York Hotel, Bridge Street, Blackfriars marked by an inaugural paper by one Robert Barker of Writtle, Essex speaking on Manures.

Such were the political controversies which surrounded agriculture at

this time, not least the Corn Laws, that political debate was forbidden from meetings to allow concentration on issues of agriculture and science.

Of the several papers delivered and/or published each year many, if not all, are relevant to education and research but those with specific reference to these matters are listed below. Such a list could, of course, have been compiled from the proceedings and publications of many of the societies and journals mentioned, which space and time preclude, but this gives a flavour of matters under discussion over the past 170 odd years.

As a measure of the influence of the men involved with the club, at a random meeting in January 1849, those present included William Shaw (the club's founder and influential agricultural journalist), John Mechi (who founded the Royal Agricultural Benevolent Institution, see 1857 John Joseph Mechi) and John Clutton (1809-1896, leading agricultural land agent and founding father of the Institution of Surveyors, later the Royal Institution of Chartered Surveyors (RICS), in 1868), who attended along with his brother, Robert, also a prominent land agent.

- 1844 Journal of the Farmers' Club.
- On the necessity for, and means of, extending agricultural education. S Sidney, Clapham.
- 1859 The education, discipline and introduction of the young farmer to life. R Bond.
- 1865 Middle-class education. E Edmunds, Rugby, Warwickshire.
- 1871 The agricultural labourer: his employment, wages and education. C S Read, MP.
- 1873 County education. Rev. J L Brereton, Cambridge.
- 1879 The working of the Education Acts in the rural districts. P Phipps, MP.
- 1887 Dairy education. T Rigby, Preston Brook, Cheshire.

 The education of those intended to be farmers. S B L Druce.
- 1891 How can county councils best promote the interests of technical

- education as connected with agriculture? S Rowlandson, JP, Newton Morrell, Co. Durham.
- 1892 County council plans for providing technical instruction in agriculture. J H Dugdale, Ware, Hertfordshire.
- Dairy schools and their influence in improving the dairy industry. Professor F L Lloyd, London.
- 1898 County councils and agricultural education: ten years work (1888-98). S B L Druce.
- 1899 Foreign agricultural education. Rouse Orlebar, Wellingborough, Northamptonshire.
- 1904 The club moved to the current premises in Whitehall Court.
- 1907 Agricultural education and the farmer's son. A D Hall (see 1903).
- 1908 The Report of the Departmental Committee on Agricultural Education. Professor W Somerville (see 1871), Oxford.
- 1912 Farm institutes in relation to agricultural education. J C Newsham, Basing, Hampshire.
- 1937 Technical instruction and the agricultural worker. W R Seward.
- 1938 Education in rural schools. G W Olive.
- 1939 Agricultural research and the work of the Agricultural Research Council. Sir William Dampier (see 1896 University of Cambridge at 1919).
- 1952 Agricultural education. Professor H C Pawson.
- 1955 Research in agriculture. Lord Rothschild.
- 1959 Agricultural research filling the gaps. Sir James Scott.
- 1975 Research and Development. Three papers and debate. New Year.
 - Royal Agricultural College Farms, Sir Emrys Jones. Spring.
 - Profile: John Pollard, Principal, Berkshire College of Agriculture. Harvest.

- The Farmers' Club Charitable Trust was founded to offer financial assistance for research to advance education and training in agriculture. This post-graduate award is specifically designed to help those employed in agricultural education, between the ages of 22 and 50 years, to widen and develop their own technical expertise outside the United Kingdom.
- 1983 Research and Development what can we afford? April Seminar. June/July.
 - The Youth Training Scheme. Peter Bell. Oct/Nov.
- 1987 The Opportunities for Young People to Become Farmers? Debate. Oct/Nov.
- 1989 What Does Research Offer Arable Farming in 1992 and Beyond? Professor Ken Treharne and John Matthews. Feb/Mar.

 Education for a Rural Future. Dr David Wyllie, East of Scotland Agricultural College. June/July.
- 1990 Edinburgh Celebrates 200 Years of Agricultural Education.
 Professor Peter Wilson, University of Edinburgh.
 Smithfield.
- 1991 Agricultural Education What Are We Doing? Debate. Royal Show.
 - A Business School for the Farming and Food Industries. Professor Arthur Jones, Royal Agricultural College. Harvest.
- 1992 The Impact of Change in Agriculture on Education. . Professor Arthur Jones, Royal Agricultural College. Autumn.
- 1993 New Rural History Centre at Reading. Dr Sadie Ward, University of Reading. Royal Show.150 Years of Research. Richard Voelcker. Autumn.
- 1994 Penny packets can become multi-million pound research programmes.

 Denis Chamberlain. Spring.
 - Vocational Farm Training in the USA. Stephen Ridgway, Lackham College. Royal Show.

- The Partnership Between Education and Industry. Professor David Newton, Royal Agricultural College. Harvest.
- 1995 The drive for efficiency must not diminish the service. Graham McConnell, Harper Adams Agricultural College. Spring.

 The RASE Library. Derek Watson. Royal Show.
 - Plumpton College Diversification. John Simpson, Plumpton. Harvest.
- 1996 *Seale-Hayne the university challenge.* Professor Fred Harper, Seale Hayne. Royal Show.
 - An 'agricultural' college in Greater London Capel Manor. Steven Dowbiggin, Capel Manor. Royal Show.
- 1997 Delivery of Education at a Distance. Lorna Tyson, Myerscough. Royal Show.
- 2001 You can't make plants grow faster simply pulling on their leaves agricultural education in the UK and the USA. Lindsay R Macadam, Merrist Wood. Summer.
 - Make the Effort to Study in the USA. Liz Fellows, Warwickshire College. Harvest.
 - Research is Key to Farming's Future. Professor Fred Gordon, Agricultural Research Institute, Northern Ireland. Winter.
- 2005 Changing course to train students in jobs for the real world outside. Pat Crawford, Hadlow College. Autumn.
- 2009 Putting professionalism back into the Agricultural Industry. Professor John Alliston, Royal Agricultural College.
- 2010 Training to Ensure a Bright Future for UK Farming. Kate Brannan, Lantra.
- 2012 Seeking a second green revolution leading farm science. Charles Abel.

See Ahead of Their Time: a short history of the Farmers' Club 1842-1967 by Kevin Fitzgerald (1968).

1843 Aberdeen, Banff and Kincardine Agricultural Society

- 1844 The *Scottish Farmer and Agricultural Advertiser* started in Aberdeen in connection with the agricultural society.
- 1848 Became the Royal Northern Agricultural Society.
- 1850 Publication of the newspaper ceased.

1843 Ayrshire Agriculturalist

- 1849 The journal moved to Edinburgh with a change of name to the *North British Agriculturalist*.
- 1970 Publication ceased, by now under the name of Farming News.

1843 Commercial and Agricultural School, Chester

A Model School attached to the Chester Diocesan Training College (what was to become the University of Chester). It closed in c1869.

1843 Rothamsted Experimental Station, Harpenden, Hertfordshire

The station was set up by Sir John Bennet Lawes (1814-1900) for research into crops and fertilisers, at his home of Rothamsted Manor, the estate running to something over 1,000 acres. He ran the establishment until his death with his chief scientist, the chemist Joseph Henry Gilbert (1817-1901) - known as Sir Henry - himself a pupil of Justus von Liebig (see 1840), through the Lawes Agricultural Trust. The Trust funded the station from 1889 to 1990 and still operates to fund research.

Although Lawes inherited the estate and the associated manorial lordship, his education and pioneering studies put him in a very different category to the keen amateur status sometimes associated with Victorians of his class.

Seven of the field experiments started in the early days are still running: Broadbalk (1843), Barnfield (1843), Hoos Barley (1852), Alternate Wheat and Fallow (1856), Exhaustion Land (1856) and Park Grass

(1856).

Directors

Rothamsted was also known as the Institute of Arable and Crops Research. It is now one of the eight bodies funded by the BBSRC and is one of the Environmental Change Network stations (see 1992).

Directors	
1843-1900	John Bennet Lawes (1814-1900)
1902-1912	(Alfred) Daniel Hall (1864-1942)
1912-1943	(Edward) John Russell (1872-1965)
1943-1958	William Gammie Ogg (1891-1979)
1958-1972	Frederick Charles Bawden (1908-1972)
1973-1988	Leslie Fowden (1925-2008)
1988-1989	Kenneth Treharne (1939-1989)
1989-1993	Trevor Lewis (b1933)
1994-1998	Benjamin J Miflin (b1939)
1999-2009	Ian R Crute (b1949)
2010-2013	Maurice Moloney
2014	Achim Dobermann (to date)

- 1847 Rothamsted Memoirs on Agricultural Science this ran to many volumes and was originally produced by Sir John Bennet Lawes himself.
- Winifred Brenchley (1883-1953) became the first woman to work at Rothamsted when she went on a Gilchrist studentship (gained for outstanding performance in her BSc from University College, London). On completing her studentship she became head of the Botanical Section (later the Botany Department) until her retirement in 1948, having gained her doctorate in 1911. Unlike the redoubtable Miss Wilkinson of Swanley Horticultural College (see 1889), Miss Brenchley neither demanded nor achieved parity of salary with the men.

- 1912 (Edward) John Russell (1872-1965), later Sir John, became director. Educated at University College, Aberystwyth and Owens College, Manchester with a doctorate from the University of London, Russell taught at Wye College before his Rothamsted appointment. In retirement, he write a History of Agricultural Science in Great Britain, published just after his death in 1966.
- c1916 Protozoology Department established.
- 1918 Mycology Department established under William B Brierley (1889-1965).
- The Mycology Department became the Plant Pathology Department.
- 1931 Rothamsted was brought under Agricultural Research Council support.
- 1934 The Department of Plant Pathology was established with the transfer in of Kew work on agricultural mycology and University of Manchester work on entomology.
- 1936 The management of Woburn (see 1876) was taken on.
- 1941 The ARC Unit of Soil Enzyme Chemistry was founded (later re-named the Unit of Soil Metabolism),
- 1945 The Unit of Soil Metabolism moved to University College, Cardiff.
- 1946 Dartington Hall operations were absorbed (see 1927).
- The Soil Survey of England and Wales was taken over from University College, Bangor (see 1884). It moved to Cranfield Institute of Technology in 1987 (see 1975).
- 1959 The Broom's Barn Experimental Station, Bury St Edmunds, Suffolk which specialised in sugar beet was acquired. It includes a 120ha experimental farm run in conjunction with the British Beet Research Organisation (a body set up jointly by British Sugar plc and the NFU).
- 1964 The management of the Saxmundham Field was taken over

(see 1899).

- 1978 Rothamsted absorbed staff from the Unit of Soil Physics, Cambridge (see 1896 University of Cambridge at 1951) when it disbanded.
- 1986 Long Ashton (see 1912) merged to form the Institute of Arable Crops Research.
- 1990 The Agricultural Food and Research Council (see 1983) took over.
- 2002 Rothamsted Research Ltd was formed.
- 2008 Rothamsted took over North Wyke Station, Devon (see 1955).

1844 Agricultural Gazette

The Agricultural Gazette was an additional arm to the existing Gardeners' Chronicle, which had been founded in 1841 by Sir Charles Wentworth Dilke (1810-1869). The agricultural section was founded by John Chalmers Morton (1821-1888), who edited from 1844 to 1888. Morton has been described as the doyen of the Victorian agricultural journalists (don't tell William Shaw or Henry Corbet) and was heavily involved in the early days of the Royal Agricultural Society of England (see 1838). This paper was particularly strong on technical content. In December 1845 Morton listed 150 'topics suitable for local farmers' club discussions' in which he included 'The professional education of the agricultural labourer.'

- 1874 The Agricultural Gazette started being produced separately from the Gardeners' Chronicle.
- 1925 The paper merged with the Farmer and Stockbreeder (see 1861).

1845 Agricultural Magazine and Journal of Scientific Farming

This publication included reports of lectures and debates, articles and summaries from papers in other journals, and more practical information on letting, corn prices and shows.

- 1847 Re-named as the Agricultural Magazine and Plough.
- 1851 Became the Agricultural Magazine, Plough and Farmers' Journal.

1845 Queen's University, Belfast

A Diploma in Agriculture was established at the Queen's University in Ireland, and also offered in the other Queen's Colleges in Cork and Galway.

- 1863 The diploma course ceased when numbers proved disappointing.
- 1913 Scholarships for agricultural studies were made available through the Gibson Trust, a legacy of William Gibson (1838-1913), a farmer's son from Co. Down who made his fortune in the jewellery trade.
- 1999 The Gibson Institute for Land, Food and Rural Environment was established.
- 2005 The Institute of Agri-food and Land Use was established.

The university currently offers agricultural degrees, in liaison with CAFRE, Greenmount (see 2004).

1845 Royal Agricultural College, Cirencester, Gloucestershire

With the motto arvorum cultus pecorumque (caring for the fields and the beasts) the College was set up under the presidency of Henry George, 4th Earl Bathurst (1790-1866). The local Fairford and Cirencester Farmers' Club had supported the idea of a college, becoming more sharply focused after an address given in November 1842 by Robert Jeffreys-Brown, a local wine merchant, on the 'Advantages of a Specific Education for Agricultural Pursuits'. That his speech was considered important is shown by its full coverage in February 1843 in the Farmer's Magazine.

The college was funded by public subscription. There had been earlier, lower level agricultural schools in England but this was the first establishment offering agricultural education at 'college' level in the English speaking world, although Jeffreys-Brown noted that

Templemoyle in Northern Ireland (see 1827) was 'almost a precise model of what is wanted in England.' In addition to Templemoyle, the establishing board of the Royal Agricultural College also looked to Europe, particularly Fellenberg's work at Hofwyl, Switzerland and to Grignon, set up in France in 1826.

The institution was strongly supported by Viscount Spencer, but his anti-Corn Law stance precluded his formal involvement, such association being deemed likely to harm the project.

- 1881 The college became an 'approved place of instruction' for the Institution of Surveyors' land agency training, and continues to date as one of the main providers of RICS accredited training for rural practice surveyors.
- 1914 The college closed at the start of the Great War, to be reopened in 1922.
- 2013 Re-named Royal Agricultural University.

The university currently farms at Coates Manor and Harnhill Manor (491 ha in all) with further access to dairy facilities at Kemble and Leaze Farms and equine operations at Fossehill Farm.

The architectural design of the main college building was copied, almost identically, by the Ontario School of Agriculture and Experimental Farm (now Ontario Agricultural College at the University of Guelph), opening in 1874.

See Roger Sayce's The History of The Royal Agricultural College, Cirencester published in 1992.

1847 Gardeners' and Farmers' Journal

The journal was established under the first editorship of M M Milburn, a land agent and secretary to the Yorkshire Society.

- 1854 The journal ceased to carry such serious articles after Milburn's death.
- 1880 The title was absorbed by the Mark Lane Express (see 1832).

1848 Digest of evidence taken before a committee of the House of Commons appointed to inquire into the agricultural customs of England and Wales in respect to tenant-right compiled by Henry Corbet (see 1832) and William Shaw (see 1832).

1848 Northamptonshire Agricultural Society

1972 Merged into the East of England Agricultural Society (see 1970).

1849 Philanthropic Society Farm School, Redhill, Surrey

The school was established on 133 acres, which grew over the years to 350 acres, with an original aim of keeping boys out of trouble and giving them training for gainful employment, in the form of agriculture. After the Reformatory School Act 1854, most intake came directly from the courts such that they were boys who had already been in trouble. There were around 250 such boys by the mid-1850s.

In later years agriculture took a lesser role and ceased as a core trade by the 1940s, its place being taken by carpentry, tailoring and shoemending. The farm did, however, continue to be run to supply produce and as an educational resource until the school's final closure in 1988.

1849 (John Christopher) Augustus Voelcker (1822-1884)

Born in Frankfurt, Voelcker (fully, John Christopher Augustus) left school at 16 and worked as a pharmacist's assistant. A superb portrait of Professor Voelcker (artist unknown), dating to c1862, is to be seen in the reception of the Royal Agricultural University.

- 1844 Voelcker studied at the Universities of Göttingen and Giessen in Germany, attending lectures by Liebig (see 1840).
- 1847 He went to Edinburgh as assistant to James Johnston (see 1842). Whilst in Edinburgh, he lectured at Durham University.
- 1849 Voelcker was appointed Professor of Chemistry at the

Royal Agricultural College. In the same year he became consulting chemist to the Bath and West Society, a post he held officially until 1863 and informally, beyond that. He was also consulting chemist to the RASE.

- Although he had lived and worked in the UK for some years, in 1852 Voelcker married a German bride, Susanna Wilhelm. In the same year he published his first paper in the RASE *Journal*.
- 1863 He set up a private consulting practice in London in 1863, providing advice in many fields including sewage, water and gas supply, river pollution, and agricultural holdings.
- 1875 He was elected chairman of the Farmers' Club.

He was keenly aware of the economic application of science, noting that: '...any good analytical chemist can ascertain the exact amount of the different constituents of the manure, and, knowing the market price at which they can be obtained separately, he is enabled to calculate with tolerable accuracy its commercial value.'

Two of Dr Voelcker's sons, John Augustus (1854-1937) and Edward William (1857-1931), continued their father's work as agricultural research chemists and the former was also consulting chemist to the RASE until his death. Both brothers served terms as President of the Royal Society of Chemistry.

It was noted in the Farmer's Magazine that no man 'ever more happily united 'Science with Practice".

1850s Fison's

The Fison's empire had its origins with James Fison (1735-1866) who had a milling, brewing and farming businesses in Norfolk but the fertiliser operation was started in the 1850s by his great grandson, Joseph (1819-1878). Significant growth was achieved under the leadership of Clavering Fison (1895-1985) whose business acumen earned him the title the 'wise man of the East'. In addition to the family business, he farmed on his own account at Strutton Park, Suffolk which gave him a deep understanding of the industry which his fertlisers served.

- 1952 Fison's Pest Control Research Station established at Chesterford Park, Saffron Walden, Essex. These operations have passed from Fisons to Boots, AgrEvo and others and are now part of a commercial Research Park.
- 1956 Fison's Levington Research Station established in Ipswich, Suffolk. Now run by Levington Laboratories.

1850 Jonas Webb (1796-1762)

A key figure in the development of the breeding of Southdown sheep and also a prominent breeder of shorthorn cattle. He exhibited sheep in France as well as in England. He farmed at Babraham in Cambridgeshire, now the site of research facilities (see 1993) where a new building was named for Jonas Webb in 2012.

1851 The Agriculturalist's Calculator - A Series of Tables for the Use of All Engaged in Agriculture or the Management of Landed Property published by Blackie & Co.

1852 Sir James Caird (1816-92)

Caird had left the University of Edinburgh prior to graduating and developed his own education by managing a number of farms in Northumberland and his native Scotland. He was influential in establishing the annual collection of agricultural statistics (see 1866). Taking a global view of the world, he travelled extensively in Ireland, mainland Europe and North America and wrote about the agricultural and political systems which he encountered on these travels. He promoted the benefits to farmers of emigration to Canada and the US and actively developed India as a source of cotton during the American Civil War (1861-65). He went on to be the director of the Land Department of the new Board of Agriculture (see 1889), a president of the Statistical Society and a Privy Councillor, and was active in the Royal Agricultural Society of England throughout.

English Agriculture 1850-51 by was commissioned by The Times, initially published in the newspaper and released in book form in 1852, later being published in the USA as well as being translated into French,

German and Swedish. It comprised a review of the agriculture of most (although not *all*) English counties including farming methods, land tenure and rents.

1852 Chandos Wren Hoskyns (1812-1876)

Talpa, or the Chronicles of a Clay Farm, An Agricultural Fragment was the publication in book form of the writings of Wren Hoskyns, first published in the Agricultural Gazette (see 1844) from 1848. Wren Hoskyns was born plain Hoskyns, adding the Wren when he married the heiress to the Wroxhall estate in Warwickshire, Theodosia Wren, a descendant of Sir Christopher. He was a barrister, MP and regular commentator on agricultural practice (see quotation on frontispiece).

1854 Mid-Somerset Agricultural Society

An annual show still runs at Shepton Mallet.

1854 North East Agricultural Association of Ireland

The society's aims include the promotion of '... agriculture in Northern Ireland by holding Agricultural Shows and by giving agricultural instruction by exhibitions, lectures and other such means as may from time to time be found expedient.'

The need for improvements and learning in agriculture were, of course, particularly poignant in Ireland in the aftermath of the Great Famine (1845-1852). This organisation, with a founding body of eight men which included William Charley (1826-1890), led to the Royal Ulster Agricultural Society.

- 1896 The first of the annual shows, which were held for many years at the King's Hall, Lisburn Road, Belfast (although, less formally, shows had been held at Charley's land at Seymour Hill, Dunmurry.
- 1903 Re-named the Ulster Agricultural Society.
- 1904 Re-named the Royal Ulster Agricultural Society.
- 2013 The annual show moved to a new showground, Balmoral Park, near Lisburn, not un-controversially on the site of the

old Maze Prison, Long Kesh which closed in September 2000.

1855 Morton's New Farmers' Almanac

An annual summarising the debates and developments of the previous year, this publication was established by J C Morton (see 1844 Agricultural Gazette).

1870 The name changed to Morton's Almanac for Farmers and Landonners and was later published as Vinton's Agricultural Almanac and Diary.

1857 Agricultural College of the State of Michigan

The first agricultural college in the USA established at East Lansing under Public Act no. 130, 1855 being 'An act for the establishment of a State Agricultural School.' It was supported with the grant of 14,000 acres of land and \$40,000.

1857 John Joseph Mechi (1802-1880)

How to Farm Profitable, particularly on Heavy Clays, or the sayings and doings of Mr Alderman Mechi was Mechi's best-selling work, published in 1857.

Mechi did not allow his sense that farmers had an inherent 'resistance to innovation and disbelief of progress' to dissuade him from his educative efforts. From chapter 1: 'Although I shall prove in these pages by unquestionable facts that numerous profitable things may be done in agriculture, I have no expectation that the generality of either landlords or tenants will practice them. The history of prejudice has always been the same, viz., resistance to innovation and disbelief of progress: but that is no justification of despair ... we must fight manfully against the old enemy that we shall overcome him by degrees ... if my exertions in the cause of agricultural progression make some impression on agricultural lethargy and disbelief, my object will have been accomplished.'

Mechi was a Londoner who, in 1841, acquired the 300 acre Tiptree Hall Farm in Essex, turned it into an experimental model farm, making

particular use of mechanisation, and wrote the first of a number of influential works, *Letters on Agriculture*, in 1844. In 1845 he became a founding council member of the Royal Agricultural College and in 1860 founded the Royal Agricultural Benevolent Institution. Poignantly, he was himself in receipt of benevolent donations as he fell from a position of considerable prosperity and public success towards the end of his life, due to the failure of various companies and the farming depression.

1857 New Edinburgh Veterinary School

This School was opened in overt competition with William Dick's College (see 1790 University of Edinburgh at 1840) by John Gamgee (1830-1894), a former Dick lecturer.

The School closed in Edinburgh and moved to London as the Royal Albert Veterinary College (see 1865).

1858 Henry Hall Dixon (1822-1870)

Dixon, who qualified as a barrister, brought his legal training to the widely used book, A Treatise on the Law of the Farm: with a digest of cases, and including the agricultural customs of England and Wales published in 1858. He was, however, better known as a sporting writer and he also produced pot-boilers with such titles as The Post and the Paddock (pub. 1856).

1858 Essex Agricultural Society

Although the show society dates to 1858, there had been a related organisation in the county from 1793: the Essex Society for the Encouragement of Agriculture and Industry under Lord Howard of Audley End. The society is now run from Writtle College (see 1892).

1860 Farm Insects by John Curtis (1791-1862).

1860 Gillingham Agricultural Society

1930 Amalgamated to run the Gillingham and Shaftesbury

Agricultural Show.

1861 Frome and District Agricultural Society

This society still runs the annual Frome Cheese Show at the West Woodlands Showground near Frome in Somerset.

1861 Scottish Farmer and Horticulturist

- 1865 Re-named *The Farmer*.
- 1881 Absorbed the *Chamber of Agriculture Journal* and *Farmers' Chronicle.*
- 1889 Farmer and Stockbreeder.
- 1925 The paper merged with the Agricultural Gazette (see 1844).

1862 Glasgow Veterinary College

This college was established under James McCall (1834-1915), Professor of Anatomy and Physiology from the Dick Veterinary College, Edinburgh (see 1790 at 1840) and Veterinary Inspector and Adviser to the 'new' Board of Agriculture (see 1889).

- 1949 It became part of the University of Glasgow.
- 1954 The College acquired Cochno Farm which now extends to 344 ha.

1862 Justin Smith Morrill (1810-1898)

Morrill was son a Vermont blacksmith and was a national politician from 1855.

He was instrumental in getting a bill to acquire public lands for agricultural and mechanical colleges signed by President Abraham Lincoln in July 1862. He continued to support land-grant colleges by introducing related bills in 1872 and 1890.

The Land-Grant College Act of 1862 granted 30,000 acres of public land to each US Senator and Representative for the purpose of establishing colleges dedicated to the instruction and training of

agricultural and mechanical topics. The first college to take this up was Iowa State College of Agriculture and Mechanic Arts (established in 1858), now Iowa State University.

1863 Cambridge and Isle of Ely Agricultural Society

1970 Merged into the East of England Agricultural Society (see 1970).

1864 Indian Forestry Service

This body was established to provide scientific training for the Indian and colonial foresters.

- of Forests in India. He had studied at Copenhagen Göttingen, Nancy and Bonn. Initially a botanist, he joined the Indian Forestry service after work in Burma. He later taught at Coopers' Hill and mentored Schlich and Ribbentrop. He was also particularly influential in United States' forestry mentoring, among others, Gifford Pinchot (1865-1946), first Chief Forester of the United States Forest Service.
- The Forestry Training College was set up at the School of Military Engineering, Cooper's Hill, Surrey to provide foresters for the Indian Forestry Service. It was led by Dr William Schlich (see 1840 University of Oxford) and Berthold Ribbentrop, both of whom had held the post of Inspector General of Forests in India. At this time, there were no British men who could match the academic and practical training of the German foresters.
- 1905 The school closed with the transfer of operations to the University of Oxford, Institute of Forestry, under Dr Schlich (see 1840 at 1905).

1865 Royal Albert Veterinary College, London

The Royal Albert was opened by John Gamgee after his failure in

Edinburgh (see 1857) and closed in 1868.

1866 Agricultural Statistics

There had been some collation of corn data back to 1685, for import tariff and tithe purposes. A century or so later, periods of poor harvest and the growing population concerns further prompted returns in the 1790s, and one was coupled with the first population census in 1801. It was not, however, until 1866, after many years of pressure from such as James Caird (see 1852) and the massive stock losses after the rinderpest outbreak of the early 1860s (see 1917 Central Veterinary Laboratory) that an annual return was established, initially under the Board of Trade.

Quantifying the position provided, of course, the data required to inform debate on what was needed from agricultural research and education.

- 1889 Returns were made to the new Board of Agriculture, Statistics Branch.
- 1917 What had hitherto been voluntary returns were made compulsory under the Corn Production Act 1917.
- 1921 Returns were, again, voluntary.
- 1925 Returns were made compulsory under the Agricultural Returns Act 1925.
- In addition to annual data, still collected today, the contingencies of war demanded greater detail and the National Farm Survey was conducted between 1941 and 1943. This was a detailed survey embracing all holdings of 5 acres or more in the full survey, including market gardeners and poultry keepers, along with 'farmers'. Those with holdings of an acre or more were subject to a separate form. This survey is easily accessible online and provides a rich resource for family and local historians as well as those working on agriculture, geography and economics.

1866 Central Chamber of Agriculture

The Chamber was founded with a remit which embraced experimental work, discussion groups, shows and education. There were some 70 odd regional groups but much of the work was absorbed by the National Farmers' Union (see 1909).

The only regional group currently remaining is the very active Shropshire Chamber.

- The *Chamber of Agriculture Journal and Farmers' Chronicle* was established under the editorship of J A Clarke.
- The Journal of the Chamber was amalgamated with The Farmer (see 1861) when Clarke moved to Bell's Weekly Messenger (see 1807).

1867 Agricultural Gangs Act

This was the first health, safety and welfare legislation directed at agricultural workers. It prohibited the employment of children under the age of eight, women and men being employed in the same gangs, and women having male gangmasters (unless a woman master was also present).

1868 Agricultural and Horticultural Association

This body, popularly known as the 'One and All', was founded by Lancashire born Edward Owen Greening (1836-1923) with a view of supplying the agricultural requirements of seeds, fertiliser, tools and the like, on a co-operative basis. The indefatigable Greening was a pioneering activist in the wider co-operative movement and other campaigns such as the Anti-Slavery Society.

1870 The Agricultural Economist and Horticultural Review was established, also by Greening, as a campaigning organ, seeking agricultural co-operation and general improvements such as contaminant free fertilisers and feedstuffs. It was published alongside an annual One and All Gardening Annual.

1869 Lincolnshire Agricultural Society

Started for 'The furtherance, welfare and progress of the Agricultural Industry and all professions, trades and crafts connected therewith.' The society still runs the annual show at its grounds near Lincoln.

1869 Nature

This is a wide ranging scientific journal, not one with an agricultural focus, but it has been the place of publication of many important papers on agricultural science. Founded by Sir Norman Lockyer (1836-1920), who was also editor for 1869 until shortly before his death.

1870 Vale of Todmorden Agricultural Society

The show has run in its current form from 1912, bar the two world wars and foot and mouth years. It is held at Centre Vale Park, Todmorden, Lancashire.

1871 University of Durham

The College of Physical Sciences (renamed the College of Science (1884-1905), Armstrong College of Science (1905-1937), King's College (1937-1963)) was established in Newcastle-upon-Tyne as part of Durham, a university which embraced subjects of regional and practical importance such as agriculture, engineering, minerals and maritime matters, as well as the classics which dominated the traditional universities at that time.

- 1891 The Chair of Agriculture was established, funded by Northumberland County Council, the first incumbent being Professor William Somerville (see 1790 University of Edinburgh).
- 1896 Cockle Park Experimental Farm was leased by Northumberland County Council from the Duke of Portland for use by the newly formed Department of Agriculture. The farm includes the Palace Leas Plots the world's longest running grazing and hay cutting experiment. The influential director of Cockle Park from 1902 was

Professor Douglas Alston Gilchrist (1859-1927). The son of a wealth Lanarkshire farmer, he was also, for many years, secretary of the Agricultural Education Association and editor of its journal *Agricultural Progress* (see 1894), forming particularly strong links between the universities, farm institutes, working farmers and the feed and fertiliser businesses.

- 1944 The tenancy of the 742 acre farm on the Allendale estate at Nafferton was acquired.
- 1963 Armstrong was one of the two Durham colleges which broke away to become the University of Newcastle-upon-Tyne (see 1963).
- The Durham Centre for Crop Improvement Technology (DCCIT) was founded in order to direct research in plant science towards major challenges, especially food security and industrial plant-biotechnology. DCCIT integrates plant-genetics, cell biology and biochemistry with expertise in chemistry, physics, mathematics and engineering to develop technologies for crop improvement.

1872 Devon County Agricultural Association

This society manages the Devon County Show.

The show was held at various sites around the county until 1956, when it moved to its first permanent site at Whipton, Exeter. It moved to its present site at Westpoint Arena and Showground in Clyst St Mary near Exeter in 1990.

1872 National Agricultural Labourers' Union

The first successful national body for farm workers grew out of the Warwickshire Agricultural Labourers' Union under the presidency of the tireless and charismatic Joseph Arch (1826-1919), who preceded his political role with many years of as a farm worker, Methodist lay preacher and winner of many a hedging prize at country fairs. Although education was not an overt, primary remit, the trades union movement did, of course, give many individuals the strength and

circumstances to access education, as noted so empathetically in *Sharpen the Sickle! The History of the Farm Workers Union* by Reginald Groves (first published 1949).

- 1906 Re-incarnated as the Eastern Counties Agricultural Labourers and Smallholders Union under George Edwards (1850-1933), who was later a county councillor, alderman, magistrate and Labour MP and was knighted in 1930.
- 1912 Name changed to the National Agricultural Labourers' and Rural Workers' Union.
- 1920 Name changed to the National Union of Agricultural Workers.
- 1968 Name changed to the National Union of Agricultural and Allied Workers.
- 1982 Became the Agricultural Section of the Transport and General Workers Union.
- 2007 Became part of Unite on the merger of the TGWU with Amicus.

See Joseph Arch (1826-1919): The Farm Workers' Leader by Pamela Horn (1971).

1872 University College of Wales, Aberystwyth

Now Aberystwyth University.

- The College was established and a series of lectures on *First Principles of Agriculture* was delivered and published by Professor Henry Tanner of the Royal Agricultural College and Harry Parnall, Vice President of the University College.
- The Department of Agriculture was established and sent out peripatetic instructors in dairying.
- 1904 A 180 acre farm was acquired at Tanygraig.
- 1919 The Welsh Plant Breeding Station (WPBS) was established through the patronage of Sir Lawrence Phillips, Lord Milford (1874-1962) under the first directorship of George

- Stapledon (1882-1960). Sir John Russell's assessment was that 'Few men in his generation left a greater mark on the countryside of Britain than he [Stapledon] did.'
- 1929 The first Professor of Agricultural Economics in the UK was appointed: Arthur Ashby (1886-1953).
- 1931 The WPBS was brought under Agricultural Research Council support.
- 1933 The Cahn Hill Improvement Scheme of over 2,000 acres in Cwmystwyth, Cardiganshire was acquired for the WPBS through the gift of Sir Julian Cahn (1882-1944).
- 1939 The 205 acre farm at Penglais Hill was acquired with £35,000 donated by David Alban Davies (1873-1951) a retired dairy businessman.
- 1955 The WPBS moved to Plas Gogerddan.
- 1964 The Pant y Dwr Research Centre, near Rhayader, Radnorshire was established. This site is now closed and the operations have been merged into Bronydd Mawr.
- 1983 The site at Bronydd Mawr, Brecknockshire was acquired to research sustainable upland beef and sheep farming.
- 1987 The Welsh Plant Breeding Station was granted AFRC (Agricultural and Food Research Council) Station status as the Institute of Grassland and Animal Production (IGAP).
- 1989 The HQ of the WPBS moved to Gogerddan.
- 1990 The WPBS changed its name to the Institute of Grassland and Environmental Research (IGER).
- 1992 The IGER station at Hurley, Berkshire was closed.
- 1995 The Department of Agricultural Sciences merged with the Welsh Agricultural College (see 1970) to form the Welsh Institute of Rural Sciences.
- 2008 The Institute of Biological, Environmental and Rural Sciences (IBERS) was established from a merger of the Institutes of Rural Sciences and Biological Sciences and the

Institute of Grassland and Environmental Research (IGER). Experimental farms of 1,000 ha are held: Trawsgoed (dairy), Plas Gogerddon (sheep and arable) and Morfa Mawr (cattle finishing and arable).

It is one of the eight bodies funded by the BBSRC.

2010 Penglais Hill Farm closed.

1873 Veterinary College, Edinburgh

The College was opened by former Dick School (see 1790 at 1840) Principal, William Williams (1832-1900).

1904 The College moved to Liverpool (see 1904).

1874 Aspatria Agricultural College, Cumberland

Aspatria was a private institution set up by local landowners 'to advance the science and teaching of agriculture', the second such college, after the Royal Agricultural College.

The college was largely developed by the 'dauntless three' local agriculturalists William Norman MRAC, a chemist, John Twentyman and the vet, Henry Thompson. The three had been instrumental in the setting up of the Aspatria Agricultural Co-operative Society in 1870. One of the earliest agricultural co-ops, it is still operating in the 21st century as Aspatria Farmers.

A key driver for this establishment was the sense that the Royal Agricultural College was beyond the reach of the sons of local farmers, geographically, in price and in ethos. Progressively, they wanted to see both landowners *and* tenants gaining an education. Fees in the mid-1880s were 45 guineas for boarders, 9 guineas for day boys, as compared with £150 at the Royal Agricultural College.

Practical farming was largely arranged by pupils going to a number of local farms with whom an arrangement was reached. Pupils at this school, unlike the Royal Agricultural, Downton or Harper Adams, were almost exclusively the sons of farmers.

1886 John Taylor, the main tutor, defected to start Tamworth

Agricultural College (see 1883), along with a significant number of pupils.

The arrival of Professor Henry Webb (1846-1893) as Principal heralded a golden period. Something of a polymath, Professor Webb gained his PhD in plant science from the University of Jena in Germany, qualified as a medical doctor through University College, London and was appointed as a professor of Animal Morphology and Physiology at the Birkbeck Institute. He was called on to report to the Paget Commission on agricultural education (see 1888). Webb particularly stressed the relationship between the theoretical and the practical as seen in the college motto *scientia et labore* - knowledge and work.

Not restricting his educational efforts to full time college students, Webb introduced an Experimental Station where local farmers could use college equipment and staff to test their manures, feeds, seeds and conduct agricultural experiments. He also initiated free evening lectures for local farm workers.

- 1888 Some government grants were received from the late 1880s, following the Technical Instruction Act (see 1889) but available funds were limited as the college was privately owned.
- 1889 Travelling dairy school established taking up to twelve pupils for ten day courses at a number of centres.
- Sir Jacob Wilson (see 1889) attempted to get Cumberland and Westmorland County Councils to purchase Aspatria as part of their plan for a publicly funded county college. These plans failed and the Cumberland and Westmorland Farm School, later Newton Rigg, developed separately (see 1896 Cumberland and Westmorland Farm School).
- 1893 On Professor Webb's premature death, the new principal was John Smith-Hill, a botany graduate and a member of the Institution of Surveyors. He married Professor Webb's widow and brought land surveying, valuation and land

- agency to the fore, along with agriculture, gaining Institution of Surveyors exemption for Aspatria students.
- 1914 The college closed and Hill-Smith took a position as resident agent at Greystoke Castle, near Penrith.

1874 Ontario School of Agriculture, Guelph

The first English language school of agriculture in Canada (see 1670) - part of the Toronto Normal School, an associate of the University of Toronto.

The main building is almost exact replica of the Royal Agricultural College at Circnester (see 1845).

- 1880 Name changed to Ontario Agricultural College
- Became one of the founding colleges of the University of Guelph.

1875 Aberdeenshire Agricultural Association

Founded by Thomas Jamieson (1829-1914), agricultural chemist, City Analyst of Aberdeen, and Fordyce¹⁰ lecturer in Agriculture at the University of Aberdeen, with considerable input from James W Barclay, MP for Forfarshire. Various experimental plots were used including, for a short period, a farm leased at Glasterberry. Jamieson entered heated debate in the farming press with the likes of Lawes (see 1843 Rothamsted) and Voelcker (see 1843), and was criticised for using overly small plots. In a review of his work published in *Nature* in 1905, the establishment opinion is apparent: '... we can only admire the innocence in which Mr Jamieson has managed to preserve his mind. Not for him the knowledge of good or evil that comes of reading other men's work ...'!

on his death, his library and £1,000 to found a lectureship on agriculture originally at Marischal College, now the University of Aberdeen (see 1895).

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A post named for John Fordyce (1736-1792) a compilation of whose lectures appeared as *Elements of Agriculture and Vegetation* in 1781. He had been the elected lord rector of Marischal College, to which he bequeathed, on his death, his library and £1,000 to found a lectureship on agriculture,

1913 The Association folded. Having failed in a 1910 bid to gain support from the Development Commission, whose funds were directed towards John Boyd Orr and the Rowett Institute (see 1913 Institute for Animal Nutrition), they received small sums from Aberdeen County Council and the North of Scotland Agricultural College but insufficient for viability.

1875 Agricultural Engineers' Association

This body was founded to represent the commercial, technical and trade interests of British manufacturers and suppliers of agricultural machinery. It supported the *Implement Manufacturers Review and Agricultural Record*.

1878 The journal's name was changed to the *Implement and Machinery Review*.

1875 Agricultural Holdings Act

The introduction of a statutory right for outgoing tenants to be compensated for unexhausted improvements prompted a renewed support for agricultural research, given the importance of accurately assessing fertiliser residues. The terms of this Act could, however, be contracted out of by landlords who could, instead, substitute private agreements.

Interestingly, although better known for soils and crops work, Rothamsted (see 1843) experiments with cattle, sheep and pigs, mainly between 1848 and 1864, initiated controlled research into measuring the chemical composition and manurial value of the excreta produced by different diets which provided the data to farmers and valuers to allow the objective valuation of unexhausted improvements compensation.

1875 Agricultural Experimental Station, Connecticut, USA

The first state agricultural experimental station was established in the USA under the directorship of Wilbur Olin Atwater (1844-1907), a pioneering chemist with an interest in human nutrition and metabolism.

It was originally sited at the Wesleyan University, then briefly at Yale, but moved to its present site in the Prospect Hill area of New Haven in 1882.

1875 British Dairy Farmers' Association

This body is now called the Royal Association of British Dairy Farmers. For over 100 years their annual show was held at Olympia where it ran the Five Day Economic Milking Trials. From the 1970s the event was held at Stoneleigh for many years and is now at the NEC, billed as The Livestock Event.

1877 Journal of the British Dairy Farmers' Association.

1875 Department of Science and Arts

The Department (established as a department of the Board of Trade in 1853 (under Henry Cole - who famously designed the first Christmas card) with an Education Department established in 1856. In 1875 the section for Agriculture was set up. Fees were introduced, payable to elementary school teachers whose pupils passed examinations in the principles of agriculture. This was aimed at students of the 'industrial classes', in contrast with the higher level Normal School lectures. Classes were often in the evenings and were held around the country. Spread was, however, patchy. At the time of the Paget Report on Agricultural Education in 1888, whilst Yorkshire had 17 classes and Middlesex had 15, six counties had none.

- 1875 The Metropolitan School of Science Applied to Mining and the Arts was a development of the Department of Science and Arts formed from a merger of the Royal College of Chemistry and the Royal School of Mines, and offered lectures in, among many other things, agriculture.
- 1881 The Normal School of Science, as it was re-named, was established in Jermyn Street, away from the rest of the Department based around the South Kensington museums.
- 1890 The Normal School of Science became the Royal College of Science.

- 1907 The Royal College of Science merged with City and Guilds Central Technical College and the Royal School of Mines to form Imperial College of Science and Technology.
- 1911 The Research Institute in Plant Physiology was established at Imperial College.
- 1929 Imperial College joined the University of London (see 1898 University of London).

1876 Woburn Experimental Station, Bedfordshire

This world famous experimental station was set up on a 131 acre site by the 9th Duke of Bedford (the landowner)¹¹ and the Royal Agricultural Society of England (see 1838). The work was run by Sir John Bennet Lawes (see 1843) and the pioneering agricultural chemist Dr Augustus Voelcker (see 1843), along with the station at Rothamsted, primarily for research into the effects of animal feed on soil production, not least prompted by the provisions of the Agricultural Holdings Acts 1875 and 1883.

1936 The management of Woburn was taken on by Rothamsted (see 1843).

1877 Pumpherston Experimental Station, near Edinburgh

A 10 acre field forming an experimental station for the Highland and Agricultural Society.

1878 The Chemistry of the Farm by Robert Warington (1838-1907)

This was the most successful of the series *Morton's Handbooks of the Farm.* Other subjects were: *Livestock, Crops, Soil, Plant Life, The Dairy, Animal Life, Labour* and *Equipment.* The original author of *The Chemistry* was to have been John Bennet Lawes of Rothamsted but the work was handed over to his assistant, Warington.

His ancestor, Francis Russell, the 5th Duke of Bedford, having set up a model farm at Woburn in the late eighteenth century and the 6th Duke publishing Experiments on the Produce and Nutritive Qualities of Different Grasses in 1806.

Warington's father, Robert Warington (1807-1867), was founder of the Chemical Society. Warington Jnr worked at the Royal Agricultural College from 1862-1867, working at Rothamsted both before and after this. His career at Rothamsted was severely hampered by his poor relationship with Joseph Gilbert and his formal connection with the research station ended in 1890. Warington was Sibthorpian Professor Rural Economy at Oxford from 1894-1897.

One of his five daughters, Katherine Warington (1897-1993) was a research botanist at Rothamsted for 36 years.

c1879 Ladies' Association for the Promotion of Horticulture and Food Industries and other Country Pursuits

The society was set up by a Miss Isabel Thorne of Lewes, Sussex, with a view to establishing a college for ladies to gain practical and scientific training in 'horticulture, aboriculture, poultry-raising, dairy work, beekeeping and other minor food industries'.

1883 Now known as the Association for the Promotion of Food Production by Women, the society organised accommodation in London for women to attend the South Kensington lectures (see 1875 Department of Science and Arts).

Date of cessation unknown.

1880 Canterbury Agricultural College, New Zealand

The oldest agricultural teaching institution in the southern hemisphere was founded in 1878, taking its first students in 1880. Originally called the School of Agriculture (Ivey Hall), linked to Canterbury College, it is now part of Lincoln University.

1880 Downton Agricultural College, near Salisbury, Wiltshire

Briefly called the Wiltshire and Hampshire Agricultural College, this was private college opened by former Royal Agricultural College lecturer, Professor John Wrightson (1840-1916) at Charford Manor, where he also lived and brought up his 11 children. On leaving the

Royal, he took a small group of key lecturers with him, including William Fream (see 1892).

Downton enjoyed something of the standing of the Royal Agricultural College (as compared to the county colleges) and, along with the Royal and Aspatria, held exemption from the Institution of Surveyors' land agency examinations. The college held a noteworthy flock of Hampshire Down sheep.

Wrightson had been 'best student' at the Royal Agricultural College in 1863 and was, for 12 years, a professor of agriculture at the college. He further developed his ideas after a tour of Europe undertaken when he was the Royal Agricultural Society's representative at the Vienna International Exposition 1873, and was probably the first to introduce silage to Britain (or sour hay, as he termed it).

Wrightson held strongly that agricultural education required the practical alongside the scientific, making full use of the 535 acres at Charford, observing, with a slight to certain establishments, that: 'a sufficient farm is essential to an institution which pretends to teach farming.'

1906 Downton closed as Professor Wrightson drew to retirement age and private colleges were less attractive with the development publicly funded agricultural education.

Wrightson continued to take three or four farm pupils each year, and wrote prolifically, including the much used *Agriculture, theoretical and practical: A Textbook of Mixed Farming for Large and Small Farmers and for Agricultural Students*, co-authored with John Newsham (1873-?) in 1915. On his death, the then principal of the Royal Agricultural College, J R Ainsworth-Davis, noted that Wrightson '... would always occupy an honoured place in the history of British agriculture, especially as regards the educational developments.'

By the by: Julian Fellowes, author and director of the television series *Downton Abbey*, is Professor Wrightson's great grandson.

1880 Munster Dairy School and Agricultural Institute

The first dairy school was established in the (then) UK near Bishopstown, Co. Cork, after the old Munster Model Farm was saved from closure. The Model Farm had taken boys as agricultural pupils. The Dairy School expanded to take girls and was of such note as to send cheese-making instructors to Cheshire (see 1886) when such expertise was required. The Munster dairy maids were particularly singled out for praise in Henry Jenkins's report on agricultural education (see 1884).

c1881 Sussex Association for the Improvement of Agriculture

This body was largely an experimental station run by Professor Thomas Jamieson (see 1875) on the land lent for the purpose by Major Warden Sergison (1835-1888) of Cuckfield Park, Sussex.

c1891 Operations ceased on this site.

1882 British Dairy Institute, near Aylesbury, Buckinghamshire

The Institute was established by the British Dairy Farmers' Association (see 1875) to train instructors for the increasing number of travelling and fixed dairy schools.

1896 It moved to University College, Reading (see 1893).

1883 Cheshire Dairy School / Agricultural Instruction Committee

The school was established as a private company by Thomas Rigby at Aston Hall, Worleston. This was the start of what is now Reaseheath College, Nantwich.

- 1890 The County Council took over by forming an Agricultural Instruction Committee.
- A farm at Worleston was taken over and the institution was re-named the Worleston Dairy Institute.
- 1914 Henhull Hall Farm was acquired.
- 1916 The Dairy Institute moved to Henhull Hall.
- 1919 Activities transferred to Reaseheath Hall and merged with the Holmes Chapel College of Agriculture (see 1895).

- 1921 Re-named Cheshire School of Agriculture.
- 1926 Worleston Dairy Institute was taken into the Cheshire School of Agriculture.
- 1967 The institution became Reaseheath College.

The college is currently farming 200 ha farm with dairy, pigs, sheep and arable, along with an equine unit.

1883 Agricultural Holdings Act

This legislation gave tenants the *right* to compensation for improvements, with the consequent impact on the need for technical understanding, testing and land management. The Agricultural Holdings Act 1875 had introduced the principle but without any compulsion.

1884 Report on agricultural education in North Germany, France, Denmark, Belgium, Holland, and the United Kingdom. Chairman: Henry Jenkins (1840-1886).

The 2nd Report of the Royal Commission on Technical Instruction covered agriculture. It noted, among many other things, that a small number of what we would now call secondary schools were preparing boys for the Junior Scholarship exams of the Royal Agricultural Society of England (see 1838). Five county schools (Surrey, Bedford, Devon, Dorset and Norfolk), two grammar schools (Sandbach and Bewdley), and one 'special country school of the county type' (Aspatria). Apparently, a concerted effort by the RASE to encourage schools of this type to offer agriculture largely failed.

1884 University College of North Wales, Bangor

Degrees in agriculture were introduced, initially awarded by the University of London.

c1889 A Department of Agriculture was established, appointing the first full time lectureship in Agriculture in England and Wales, a post filled by Douglas Gilchrist (see 1871 University of Durham at 1896).

- 1893 Bangor became a founding member of the federal University of Wales, along with what are now the universities of Aberystwyth (see 1872) and Cardiff.
- 1904 The School of Forestry was established under Fraser Story who gained a professorship in 1910.
- 1939 The Soil Survey of England and Wales was established under Gilbert Wooding Robinson (1888-1950), originally under the guidance of T B Wood. It was housed at Bangor although was formally separate. It was transferred to Rothamsted (see 1843) in 1947.
- 1953 The ARC Unit of Embryology was established to support the work of Professor F W Roger Brambell (1901-1970, see 1965). The unit was disbanded on his retirement in 1968.
- 1960 Treborth Botanic Garden was acquired.
- 2009 Re-named Bangor University, independent of the confederate University of Wales structure.

1886 Tamworth Agricultural College and Training Farm, Staffordshire

Tamworth was a private college established by the Sillito brothers at Alvecote Priory. It was run by John Taylor who moved from Aspatria (see 1874) bringing a significant number of pupils with him.

It ceased operations in 1914.

1887 Glasgow and West of Scotland Technical College

The Agricultural Department was established which, along with the other Scottish regional colleges, ultimately led to the Scottish Agricultural College.

- 1899 The Glasgow college merged with the Scottish Dairy Institute to form the West of Scotland Agricultural College with premises in Glasgow.
- 1904 The Dairy School for Scotland, Kilmarnock opened as a successor to the Scottish Dairy Institute.

- 1928 The use of the Auchincruive estate in Ayr was presented to the Secretary of State for Scotland by John Hannah of Girvan Mains (see also the Hannah Dairy Research Institute, 1928).
- 1949 The College acquired the Lephinmore Experimental Hill Farm Research Station in Argyll, which transferred to the Hill Farming Research Organisation in 1954 (see 1954).
- 1974 The Glasgow site closed.
- 1975 The Dairy Cattle Research Centre was established at Dumfries with the leasing of 252 ha Crichton Royal Farm. This farm had come into public ownership in 1884 to provide food for the Crichton Royal Asylum (for psychiatric patients).
- 1990 The College merged with the North of Scotland College of Agriculture, Aberdeen (see 1904) and the Edinburgh and East of Scotland College of Agriculture (see 1901) to form the Scotlish Agricultural College (see 1990), now the Scotlish Rural University College (see 2012). Ownership of the Auchincruive estate was acquired at this point.

1887 Hollesley Bay Colonial College, near Woodbridge, Suffolk

The College, founded by Robert Johnson (c1836-1901) on the 1,800 acre Boyton estate, aimed 'to provide for those intending to emigrate, a thoroughly sound and practical training before their departure.' Although only newly opened, in the Paget Committee Report of 1888 this college was referred to in a similar light as the Royal Agricultural College, Aspatria and Downton.

- 1903 The college closed
- The site was acquired by the Central Committee of the London Unemployed Fund (later the London Central (Unemployed) Body) and renamed the Hollesley Bay Farm Colony. The Colony took unemployed men from London and trained them in farm work and other rural industries. Men who proved successful were re-settled with their families with permanent employment either on the

Colony's own estate or elsewhere. The scheme gained some success with the Colony becoming an agricultural showpiece, especially known for its orchards and soft fruit trees.

Hollesley Bay was taken over by the Prison Commission as a training institution for young offenders. It used the farm as a key training facility and had working Suffolk Punch heavy horses and a stud. It was recalled in Brendan Behan's (1923-1964) autobiographical *Borstal Boy* (pub. 1958).

2006 The prison sold the farm and the largest herd of Suffolk Punch horses in the world to the Suffolk Punch Trust. Prisoners continued to work on the farm and with the horses until 2011.

1887 National Association for the Promotion of Technical and Secondary Education

This body, particularly through the endeavours of the secretary Sir Arthur Dyke Acland¹² (1847-1926), Liberal MP for Rotherham, was instrumental in having the 'whisky money' (see 1890 Local Taxation) applied to technical, including agricultural, education.

1888 Report of the Commission on Agricultural and Dairy Schools. Chairman: Sir Richard Paget (1832-1908).

This government commission was charged with reviewing agricultural education. It concluded that there was insufficient provision and that state aid was needed. It recommended a Central Normal School of Agriculture (planned to be located near Rugby, Warwickshire), regional dairy schools and local agricultural schools, ideally with experimental farms, in every county. Plans for a central school were dropped in favour of regional institutions which would be able to cater for diverse local conditions.

 $^{^{\}rm 12}\,$ Son of Sir Thomas (see 1777) and father of Sir Francis (see 1919).

1888 Firth College, Sheffield

Alfred Denny became the first Professor of Biology with the first Professor of Botany, B H Bentley, following in 1908.

- 1905 The college became the University of Sheffield.
- 1952 The ARC Unit of Microbiology was established under the first directorship of Sidney Elsden (1915-2006). The Unit was disbanded in 1967 when Professor Elsden became the Director of the new Food Research Institute (see 1967).
- 1961 The Unit of Grassland Ecology was established, later the NERC (National Environmental Research Council, see 1965) Unit of Comparative Plant Ecology.
- 1969 One of the world's most comprehensive long-term monitoring studies of semi-natural grassland was established at Bibury, Gloucestershire.
- 1988 The Department of Animal and Plant Science established.
- 2010 A research grant was secured to support the project on the Origins of Agriculture : an ecological perspective on crop domestication.

1888 Norfolk Chamber of Agriculture

Experiments were started by the Chamber of Agriculture, who sought the 'aid of men of science' such as Dr Voelcker (see 1843).

- 1905 Management of the experiments moved to the University of Cambridge, Department of Agriculture (see 1896 University of Cambridge).
- 1908 The Norfolk Agricultural Station was established at Jex Farm, Little Snoring, near Fakenham (see 1908).

1889 Abbotsholme School, Uttoxeter, Staffordshire

Abbotsholme is an independent secondary school where the 74 acre mixed farm is integral to the curriculum and ethos of the school. The philosophy of the founder Dr Cecil Reddie (1858-1932), was, however,

more about using the farm for personal development rather than agricultural education for practical or further academic purposes.

1889 Board of Agriculture

The Board was established under the Board of Agriculture Act 1889 under the first presidency of the Rt Hon. Henry Chaplin (1840-1923) and had £5,000 to apply to agricultural education, under the Technical Instruction Act 1889, and a specific remit for the support, inspection and reporting on institutions providing agricultural education. The first body to benefit from the fund was the University College of North Wales at Bangor.

- 1903 Renamed the Board of Agriculture and Fisheries.
- 1912 The Board assumed the full responsibility for the agricultural education for all students over 16 years old, no longer splitting the role with the Board of Education.

Awarded scholarships for agricultural economics, the first going to Arthur Ashby (1886-1953). He used this to study at the new Institute of Agricultural Economics, Oxford (see 1840).

- 1919 Re-named the Ministry of Agriculture and Fisheries.
- 1955 Re-named the Ministry of Agriculture, Fisheries and Food (MAFF).
- 2001 MAFF merged with the Department of Environment, Transport and the Regions to form Defra - the Department of Environment, Food and Rural Affairs.

1889 Horticultural College, Swanley, Kent

Swanley was the brainchild of Arthur Harper Bond (1853-1940), set up on the 43 acre Kent estate of Sir Edward Reed (1830-1906) which Bond purchased for the purpose in 1889.

- Although originally for men only, women were admitted from this date.
- 1902 It became a women only college under the headship of

Miss Fanny 'Rollo' Wilkinson (1855-1951), previously landscape gardener to the Metropolitan Public Gardens Association. Miss Wilkinson was a founding member of the Women's Agricultural and Horticultural International Union (see 1899). She held the headship until 1916.

- 1903 Colonial Branch established to train women in light agriculture, horticulture and domestic science prior to their going overseas.
- 1916 Colonial Branch closed.
- 1945 Swanley was absorbed into Wye College after suffering severe bomb damage during the war.
- 1949 The land was purchased by Kent County Council for the establishment of a new Horticultural Institute (see 1919 Kent Farm Institute).

1889 Technical Instruction Act

This legislation gave local authorities the responsibility for, and powers to support, technical education, notably by permitting a penny rate to be raised for the express purpose. Specific reference was made in section 8 to technical instruction in agriculture and practical instruction in the processes of agriculture.

1889 Sir Jacob Wilson (1806-1905)

In a speech at Aspatria Agricultural College (see 1874), Sir Jacob noted that government expenditure on agricultural education in Britain was £5,000. France (with a similar population) was spending £170,000, Belgium (population around the size of London) was spending £14,000, Denmark £11,000, Germany £172,000 and the USA £615,000.

The differences are partly, of course, a function of the differing levels of population employed in agriculture: Britain 10%, France 44%, Belgium 35%, Germany 39%, but it still showed a considerable under provision.

Sir Jacob was an important figure in the Victorian agricultural world.

He attended the Royal Agricultural College, gaining a Highland and Agricultural Society (see 1784) prize for a paper on mechanical harvesting. He was instrumental in introducing legislation to stem the importation of animal diseases (Contagious Diseases (Animals) Act 1878 and the Animals Act 1884), was land agent to the Earl of Tankeville's Chillingham estate, doing particular work with the famous white Chillingham cattle, was a director of the Land Department, agricultural adviser to the Board of Agriculture, and a member of the Royal Commissions on Agriculture (Depressed Condition) in 1879 and on Horse-breeding in 1887. He had a long association with the Royal Agricultural Society of England and with the Northumberland Agricultural Society.

1890 Stephen Moulton Babcock (1843-1931)

Babcock was an American agricultural chemist who gained his doctorate at the University of Göttingen. He was, from 1887 to 1913, Professor of Agricultural Chemistry at the University of Wisconsin and Chief Chemist of the Wisconsin Agricultural Experiment Station. He is known chiefly for the Babcock test (perfected in 1890) for determining the percentage of butterfat in milk.

c1890 Colonial Training Home, Leaton Grange, Shropshire

This was one of many such bodies which proliferated at this time of the expansion of empire. The remit was to train young women in both household management and the lighter branches of agriculture: dairying, poultry, beekeeping and horticulture. They were then set up for service overseas in posts arranged by the United British Women's Emigration Association. This particular school liaised primarily with establishments in British Columbia.

- 1907 The school moved to Stoke Prior, near Bromsgrove, Worcestershire, changing its name to the Colonial Training College.
- 1914 The war brought a halt to the high level of emigration, resulting in school closure.

1890 Local Taxation (Customs and Excise) Act 1890

This Act designated taxes from alcohol duties to be applied to technical education and around £80,000 of the £1 million raised each year was applied specifically to agricultural education, the so called 'whisky' grants to agricultural colleges.

1890 Textbook of Agricultural Zoology by Frederic Vincent Theobold (1868-1930).

1890 Yorkshire College of Science / University of Leeds

As well as operating at university level, until 1946 the college's Department of Agriculture also looked after education in Yorkshire at farm institute level in liaison with the County Council.

- 1894 Manor Farm, Garforth was acquired and operations were known for a time as Manor Farm Agricultural College.
- 1904 The farming activities became part of the University of Leeds the university farm, Headley Hall, later being taken over by Askham Bryan College (see 1948).
- 1921 Fruit trial plots were acquired at Osgodby, near Selby.
- 1948 Operations moved from Manor Farm to Askham Bryan.
- 1973 The Faculty of Agriculture closed but related activities continued in the Department of Bio-sciences.

1891 Sexey's School, Somerset

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A co-educational secondary school was set up in Bruton, driven by Henry Hobhouse (1854-1937),¹³ with agriculture as a key feature of the

Henry Hobhouse, MP (see also 1906) is described in the Oxford Dictionary of National Biography as 'the archetypal public-spirited country gentleman. No aspect of local welfare escaped him, but his favourite subjects were education and agriculture.' Given his favourite subjects, and his various achievements therein, he deserves inclusion in this listing. Out of interest, his first wife, Margaret, was a sister of Beatrice Webb, founder member of The Fabian Society and co-founder of the London School of Economics.

curriculum for boys (and domestic science for girls). A farm was acquired on Wells Way, near to the main school, to support such studies and some scholarship places were supported by the East Somerset Agricultural Society. The school is now a state boarding school but no longer features agriculture.

1892 East Anglian Institute of Agriculture, Chelmsford, Essex

Activities started in 1892 with a travelling dairy school and the funding of eight teachers being sent to study a course in agricultural chemistry at Cambridge. Established as Essex Technical Laboratories, this became the Essex Institute of Agriculture, Writtle Agricultural College and now Writtle College.

- 1911 A Dairy School, a Winter School of Agriculture and a School of Horticulture were introduced.
- 1913 The 150 acre Brittons Hall Farm was acquired.

The college currently runs Sturgeons Farm, near Chelmsford with beef, sheep, pigs, turkeys and arable units.

See Writtle College: the first hundred years by Clive Beale and Geoff Owen, published in 1993.

1892 William Fream (1854-1906)

The writing of *Elements of Agriculture*: A Text Book had been proposed by the Royal Agricultural Society of England. First published in 1892, it was divided into three sections - The Soil, The Plant and The Animal. The first printing ran out on the day of publication and the book was released in 17th edition a century later in 1992.

Fream had studied in Dublin before graduating in Chemistry from the University of London. He offered Britain's first course in agricultural entomology at Downton Agricultural College, later moving on to the University of Edinburgh where he worked from 1890 until his death.

1892 Gloucester County Dairy School

This travelling school was run from The Barracks, Gloucester.

1892 Lancashire College of Agriculture

Agricultural courses were established by the county council at the Preston Institute for the Diffusion of Knowledge / Harris Institute in Avenham. This was the start of what became Myerscough College.

- 1894 Lancashire County Council Dairy School / Institute of Agriculture was established at Hutton, south of Preston and was sometimes referred to as Hutton College.
- 1948 Winmarleigh Hall was added to school.
- 1967 Re-named Lancashire College of Agriculture.
- 1969 The College reopened at a new site at Myerscough.
- 1979 Re-named Lancashire College of Agriculture and Horticulture.
- 1993 Incorporated independently of the county council as Myerscough College.
- 1997 The Winmarleigh site was abandoned.
- 1999 The Hutton site was sold.

The College currently farms: Myerscough Lodge Farm (leased from the Duchy of Lancaster since 1969), Lee Farm (leased from the Duchy of Lancaster since 2004), Gables Farm (the only part of the original holding bought by County Council in 1894), Light Ash Farm and Primrose Hill (leased from the Duchy of Lancaster since 2002).

1892 University of Nottingham

The Department of Agriculture, University College, Nottingham was established following some agricultural lectures organized by the County Council using an Oxford University Instruction Grant.

Work moved to the Midland Dairy Institute, Kingston-on-Soar, set up with funding from Nottingham, Derbyshire

- and Leicestershire County Councils and staffed by the Department of Agriculture, University College, Nottingham. Lord Belper's 160 acre Home Farm at Kingston was leased for dairying.
- 1900 The title Midland Agricultural and Dairy Institute was established.
- 1905 The name was changed to the Midland Agricultural and Dairy College.
- 1919 Agricultural operations of University College Nottingham moved to Sutton Bonington. Dairy and poultry operations remained under the Midland Agricultural and Dairy College at Kingston.
- 1946 Advisory staff moved to Shardlow Hall, Derbyshire (see 1946).
- 1948 The College was absorbed into the newly chartered University of Nottingham.
- 2007 The School of Veterinary Medicine and Science opened, being the first new veterinary school to be opened in the UK for over 50 years.

1893 University College, Reading

University activity in Reading grew out of an extension college of Christ Church, University of Oxford which was founded in 1892. There had, however been a School of Art and Science at Reading since 1860. The Department of Agriculture was established in 1893, partly funded by the Sutton seed company (see 1806), and was first led by Douglas Alston Gilchrist (who went on to Cockle Park, Newcastle, see 1871).

- 1896 The British Dairy Institute (see 1882) moved from Aylesbury.
- 1898 Lady Warwick Hostel opened (see 1898 Studley Castle ...)
- 1902 Two hostels opened for women: St George's and St Andrew's.
- 1903 Farm at Shinfield purchased.

- 1912 The Research Institute in Dairying was established initially funded, in part, by the Palmer family (of the Huntley and Palmer biscuit company). Its first director was Professor Robert Stenhouse Williams (1871-1932). Later it became the National Institute for Research in Dairying (NIRD) and is now the Centre for Dairy Research (CEDAR).
- 1920 NIRD acquired the Shinfield Manor Estate, Berkshire, which became the site of the Cattle Breeding Centre.
- 1921 A considerable boost in funding for the NIRD came from the Corn Production Acts repeal monies (see 1921).
- 1926 The college gained independent university status and became the University of Reading, at which point it was described as 'the largest and most complex centre of agricultural teaching and research in the United Kingdom.'
- 1931 The NIRD was brought under Agricultural Research Council support.
- 1934 Sonning Farm purchased.
- 1951 The Museum of English Rural Life (MERL) was established as an invaluable resource of objects, books and archives relating to the history of food, farming and the countryside.
- 1965 The Institute of Agricultural History grew from MERL.
- 1979 The Farm Management Unit was established.
- Some operations of NIRD were transferred to the Institute for Food Research, Colney, Norwich (see 1986).
- 1991 The Cattle Breeding Centre, Shinfield, closed.
- 1993 The Rural History Centre was established.
- 1997 The Soft Fruit Technology Group was established.
- 2004 The Animal Science Research Group (ASRG) was formed from a merger of the Centre for Dairy Research (CEDAR), the Nutritional Sciences Research Unit (NSRU) and

Biomathematics.

The university has farms at Shinfield and Arborfield, divided by the River Loddon, which it has held since 1903.

The 180 ha Sonning Farm was purchased in 1934.

1894 Agricultural Education Association

This body was largely the result of the driving force of A E Brooke-Hunt, from the Board of Agriculture. Its objectives were to encourage all branches of agricultural education and research. It produced the estimable journal *Agricultural Progress*, a rich resource for studies of agricultural education and, indeed, agriculture in general, in the period covered.

1990s Name changed to the Rural Education and Development Association.

1997 Agricultural Progress ceased publication.

1894 Edinburgh School of Rural Economy

Extension courses were established.

1901 The school was absorbed into the Edinburgh and East of Scotland College of Agriculture (see 1901).

1894 Irish Agricultural Organisation Society

Founded by Horace Plunkett (1854-1932), MP for Meath (see 1899) to support and share knowledge between cooperatives. The first secretary was Robert Anderson (1860-1942), land agent to Lord Castleton.

On partition, a separate Ulster Agricultural Organisation Society was formed (see 1922).

1894 Uckfield Agricultural and Horticultural College, East Sussex

Uckfield was established by Sussex County Council and currently runs Wales, Saddlescombe, Ivyland, Homestead and Perch Farms.

- 1915 The original college closed.
- 1919 The County Council replaced Uckfield with the East Sussex Agricultural Institute with students initially housed in the college farm and local lodgings.
- 1926 Student accommodation was built.
- 1934 Re-named East Sussex School of Agriculture.
- WWII The college was a centre for Women's Land Army training for the County War Agricultural Committee.
- 1967 Re-named Plumpton Agricultural College, now part of Plumpton College.

c1895 Shropshire Technical School for Girls, Shrewsbury

This girls only college was later named Shropshire College of Domestic Science and Dairy Work and later still, Radbrook College (of Agriculture). It was originally funded through the trust of Lady Catherine Herbert who, in 1716, willed substantial monies for the support of poor women and girls in Salop under the Preston-upon-the-Wild Moors Hospital fund.

- The then head, Aileen King, wrote a best-selling book, Better Cookery, which ran to many editions and today fetches a good price on the second hard market.
- 1982 The horticultural operations transferred to Walford College (see 1949).

It is no longer involved in agriculture or horticulture and was absorbed into Shrewsbury College.

1895 Cardigan County Council Dairy School, Cardigan

This school was established particularly for the making of Caerphilly cheese.

1895 Dauntsey's Agricultural School, near Devizes, Wiltshire

An agricultural school was established at West Lavington through the

encouragement of Joseph Chamberlain (1836-1914) after the previous, non-agricultural, incarnation of this school, established in 1542, was failing. It offered, for a fee or through many scholarship places, rudimentary agricultural training alongside a more traditional school curriculum.

1930 The word 'Agricultural' was dropped although agriculture co-existed with a traditional academic curriculum for some time.

The school still exists although no long delivers an agricultural programme.

1895 Holmes Chapel College of Agriculture, Cheshire

The Holmes Chapel College was established when the Cheshire Agricultural Instruction Committee took a lease on Saltersford Hall at Holmes Chapel.

- 1909 An affiliation was made to Manchester University (see 1909) with, in addition to diploma courses, a degree with the first year spent at the university and two years at the Holmes Chapel site.
- 1919 Operations moved to Reaseheath, near Nantwich (see 1883).

1895 University of Aberdeen

The Department of Agriculture was established.

- 1907 Forestry was established under William Dawson (who also lectured in botany, chemistry and land surveying). The first degree in Forestry was awarded in 1919, and the university remains one of the few institutions still offering forestry at degree level. In 1925 a Chair of Forestry was established, with the post first being held by Professor Albert W Borthwick.
- The ARC Unit of Statistics was established under Dr David J Finney (1917-), a similar service being provided for England and Wales by the Statistics Department of

Rothamsted. Dr Finney was a pioneer in drug safety research and helped set up the Drug Safety Research Unit. The Unit of Statistics transferred with Dr Finney to the University of Edinburgh (see 1790) in 1966.

2011 The final students graduated from the Department of Agriculture and remaining activities transferred to the School of Biological Science.

1896 Bedfordshire Agricultural Institute / Farm School, Ridgmont

The farm school was established at the Duke of Bedford's Warren Farm, the then Duke and his father having long been interested in agricultural progress. The 9th Duke had established an experimental farm at Husborne Crawley in 1876 (see 1876 Woburn) and the 11th Duke established an experimental fruit farm in the same parish in 1895.

1912 The farm institute closed after its funds were embezzled by the local education authority Director of Education, Frank Spooner, who absconded and, despite a newspaper campaign and wanted posters, was never seen again. The Duke agreed to clear the institute's losses on the surrender of the lease of Warren Farm.

1896 Cumberland and Westmorland Farm School, Newton Rigg

- 1965 The National School of Forestry was established following the closure of the Forestry Commission Forestry Schools.
- 1998 Operations were integrated into the University of Central Lancashire (UCLan).
- 2007 Operations taken to the University of Cumbria.
- 2011 Newton Rigg activities were largely (although not wholly) transferred from the University of Cumbria to Askham Bryan College.
- 2014 The National School of Forestry transferred to Ambleside.

The college currently farms 171 ha at the upland Lower Beckside Farm, acquired in 1960 and the 203 ha Sewborwens Farm, acquired in 1948.

1896 Diploma in the Science and Practice of Dairying

- A National Diploma in Dairying was established, jointly awarded by the Royal Agricultural Society of England and the Royal Highland and Agricultural Society of Scotland.
- 1900 The National Diploma in Agriculture was introduced.

1896 Lady Manners School, Bakewell, Derbyshire

This school re-opened in 1896 after a 22 year closure, having first been established in 1636. It is mentioned in a number of government reports as having had an agricultural bias (see also the schools in Knaresborough and Welshpool, both 1908). The school today is a coeducational state comprehensive and still offers Level 2 and 3 Apprenticeship qualifications in Agriculture, along with the standard secondary curriculum.

1896 South Eastern Agricultural College, Wye, Kent

Said by the contemporary assessment of Daniel Hall (see 1903) to be 'the only institution in this country comparable ... with the national agricultural schools of France, the *Lehr-Anstalten* of Germany, or the State colleges of America.' Initially, some of the governors simply wanted a source of 'a really good ploughman or shepherd' and were somewhat dismayed to find themselves committed to *higher* education!

The college became the Department of Agriculture at the University of London (see 1898 University of London).

1896 University of Cambridge

The Gilbey lectureship in the History and Economics of Agriculture was established with the endowment of Sir Walter Gilbey (1831-1911), a wine merchant, shire horse breeder and agriculturalist. The first appointee was Sir Ernest Clarke.

1897 The first woman was awarded a Diploma in Agriculture :

- Louisa Jebb, later Mrs Roland Wilkins (1873-1929). She went on to be awarded an OBE for services to agricultural administration through her work with the Board of Agriculture.
- The Department of Agriculture was established with the Drapers' Chair of Agriculture funded to the sum of £800 by the Drapers' Company (one of the London livery companies), first taken by William Somerville (see 1871 University of Durham), followed in 1902 by Thomas Middleton. There had been encouragement from the Board of Agriculture to introduce the subject dating back to 1890.
- 1900 A non-honours degree in Agricultural Science was approved and the Cambridge University Farm (CUF) was established on the Burgoyne Farm at Impington, provided for the university's use by Mr W A Macfarlane-Grieve of Impington Hall. The farm moved to Gravel Hill in 1910.
- 1905 The *Journal of Agricultural Science* was established under the first editor in chief, T B Wood with a Board which included Sir A Daniel Hall (see 1903) and Sir Rowland H Biffen (1874-1949).
- 1907 Forestry was established but the department closed in 1932.
- 1908 The Chair of Agricultural Botany was established with Drapers' Company funds, the first incumbent being Sir Rowland Biffen.
- 1909 The Department of Pathology was established to study the diseases of large animals.
- 1910 A School of Agriculture was built in Downing College and opened by the Duke of Devonshire.
- 1912 The Plant Breeding Institute was established under the first directorship of Sir Roland Biffen, at the instigation of the Board of Agriculture. Biffen remained in office until 1936.
- 1911 The Cambridge Institute for Animal Nutrition was founded within the School of Agriculture under the first directorship

of Sir John Hammond (1889-1964).

1919 Pass degrees in Agriculture, Estate Management and Forestry were offered. The first Reader in Estate Management was appointed in the form of Col. Frank Braybrooke Smith (1864-1950), a former Vice-Principal of Wye College and Secretary of Agriculture for South Africa.

Original proposals for 'a great school of Rural Economy' dated back to a report by William Dampier (1867-1952)¹⁴ in 1917. To say that the idea met with a lack of enthusiasm from the university hierarchy would be an understatement. A Dr Mayo is reported as observing that 'College estates were managed by the most competent men in the world, the College Bursars, who certainly did not require the assistance of a Reader in Estate Management ... the whole proposal bordered on the ridiculous.'

- 1919 The Small Animal Breeding Institute was established.
- The Molteno Institute for Parasitology was established with funding from Percy Molteno (1861-1937), a South African farmer, lawyer, shipping magnate and Liberal MP who took a great interest in George Nuttall's (1863-1937) work at Cambridge on parasitic diseases, particularly piroplasmosis.
- 1922 The Low Temperature Research Station was established. It closed in the 1960s with the work taken on by the Food

Dampier was a council member and vice-president of the Royal Agricultural Society, served on the Agricultural Wages Board, as a development commissioner, and was a chairman of the Land Settlement Committee. He was chairman of the Ministry of Agriculture machinery testing committee, of the committee for the preservation of grass and other fodder crops, and acting chairman of the Rural Industries Bureau. In 1931 he was knighted for his services to agriculture and in the same year became first secretary of the Agricultural Research Council (see 1931).

Dampier, primarily a physicist, inherited the Hilfield estate in Dorset in 1916. He took over the farming and developed an abiding interest in agricultural economics.

- Research Institute (see 1967).
- 1923 The Horticultural Research Station was founded.
- 1923 A Chair of Animal Pathology was founded with funding from the Ministry of Agriculture.
- 1924 The Sir William Dunn Institute of Biochemistry was formed.
- 1927 The Potato Virus Research Station was established.
- 1928 John D Rockerfeller (1839-1937), via his International Education Fund, directed £700,000 (a considerable number of millions in today's currency) for the development of Agriculture, Biological and Physical Sciences which had a dramatic impact on expansion in these areas.
- 1931 The Molteno Institute, the Plant Breeding Institute, the Institute for Animal Nutrition, the Low Temperature Research Station, the Horticultural Research Station, the Potato Virus Research Station and the Small Animal Breeding Institute were brought under Agricultural Research Council support.
- 1932 The Animal Research Station was established, becoming the ARC Unit of Animal Reproduction in 1949.
- 1941 The ARC Unit of Animal Physiology was established under Sir Joseph Barcroft (1872-1947).
- 1946 The Department of Estate Management was established, rather than Estate Management being within the Department of Agriculture. The subject was, however, still a non-honours programme.
 - The Department was given a considerable boost from a generous endowment by chartered surveyor and property developer, Sir Harold Samuel (1912-1987), later Baron Samuel of Wych Cross.
- 1947 The ARC Unit of Plant Biochemistry was established under the first directorship of Dr Charles Hanes. The Unit was disbanded in 1951 when Dr Hanes went to the University

- of Toronto.
- The Plant Virus Research Station became the ARC Unit of Plant Virus Research under the Agricultural Research Council and was absorbed into the John Innes Horticultural Institution in 1967 (see 1910).
- 1948 The ARC Unit of Animal Physiology became the Institute of Animal Physiology, located on the Babraham estate (see 1993 Babraham Institute).
- 1949 The ARC Unit of Animal Reproduction was established under Dr John Hammond (1889-1964). It had developed out of the Institute of Animal Nutrition. The Unit developed into the Unit of Reproductive Physiology and Biochemistry on Dr Hammond's retirement in 1954.
- 1949 The Veterinary School was established.
- 1951 The ARC Unit of Soil Physics, Department of Agriculture was established under the first directorship of Dr E C Childs. The unit was disbanded in 1978 with remaining staff transferring to Rothamsted (see 1843).
- 1952 The Plant Breeding Institute, established in 1912, left Cambridge to operate independently under the ARC (see 1952).
- 1955 The ARC Unit of Reproductive Physiology and Biochemistry was established as a development from the Unit of Animal Reproduction under the directorship of Dr Thaddeus R R Mann (1908-1993). It was disbanded as a unit on his retirement in 1976 although the work continued with staff transferring to the Institute of Animal Physiology at Babraham.
- The Department of Land Economy was established under the first headship of Donald Denman (1911-1999) with the introduction of the Land Economy Tripos, thus granting the subject full academic status within the university, the Estate Management Board having reported in 1961 that 'the use, tenure and development of land is an integrated

subject of universal concern to human society and capable of being studied and taught in depth.' Denman became the first Professor of Land Economy in 1968.

1969 The ARC Unit of Developmental Botany was established under Daphne Osbourne (1930-2006). It absorbed the transfer of the remaining activities of the Unit of Experimental Agronomy, Oxford (see 1840 at 1950) on its closure in 1970. The Unit closed at Cambridge in 1978.

The School of Agriculture closed, despite the best efforts of the last Draper's Chair, Sir Joseph Hutchinson (1902-1988).

- The Department of Agriculture closed. Farm Economics was transferred to the Department of Land Economy as the Agricultural Economics Unit. The Cambridge University Farm was retained and moved to the Department of Applied Biology.
- 1978 The Unit of Soil Physics disbanded with the staff transferring to Rothamsted.
- 1986 The Institute of Animal Physiology at Babraham joined with the ARC Animal Breeding Research Organisation, Roslin and the ARC Poultry Research Centre, Roslin (see 1790 at 1947) to form the Institute of Animal Physiology and Genetic Research (IAPGR, see 1985).
- 1990 The Department of Applied Botany moved to Norwich as part of the Cambridge Laboratory. It is now part of the John Innes Centre, Colney, Norwich.
- 1997 The dairy unit moved to Park Farm, Madingley.

The Cambridge University Farm currently comprises 1,085 ha. It hosts the Agronomy Group which runs potato research with the Cambridge University Potato Growers Research Association, and also provides a vital resource for the Department of Clinical Veterinary Medicine.

1897 Countess of Warwick's Secondary and Agricultural School, Bigods Hall, Dunmow, Essex

A school was set up by Frances Evelyn 'Daisy' Greville, Countess of Warwick (1861-1938).

1907 The school closed after Essex County Council withdrew support. In 1920s the chairman of Essex County Council wrote to the Countess: 'If only we had your school now. You were twenty years too soon.'

1897 Agricultural Education for Women in Great Britain, Ireland and the Colonies

This was a congress held as part of the diamond jubilee Victoria Era Exhibition events which included a Women's Work section. It took place at the Empress Theatre, Earl's Court and was

1898 Garton's Limited, Lancashire

This commercial firm was highly influential in the agricultural plant and seed industry.

The founder, John Garton (1863-1922), started research on his home farm in Lancashire and the business developed under the first managing director, George Peddie Miln (1861-1928). The Ministry of Agriculture Seeds Advisory Council, the Seeds Act 1920 and the National Institute of Agricultural Botany (see 1919) were all influenced by Miln, and his son and grandson went on to become managing directors of Garton's after him.

- 1960 Garton's was the only private operation visited by the government Committee on Seeds, Plant Breeders' Rights.
- 1983 By now a plc, trading ceased.

1898 Studley Castle Horticultural and Agricultural College for Women

Another of the Countess of Warwick's projects (see 1897 Bigods School), Coleyhurst Hostel (Lady Warwick Hostel) offered training to women in association with Reading University College (see 1893) in

horticulture, dairy-work, poultry keeping, bee keeping, etc. The institution was described in *The Times* as: '... an interesting experiment and one that is likely, if it meets with success, to have an appreciable effect upon agriculture in England.'

- 1899 The Lady Warwick Agricultural Association for Women was formed, largely to find positions for the students and to publish the *Women's Agricultural Times*. The association incorporated the Dairy Teachers' Association
- 1902 The association with Reading College was broken.
- 1903 Lady Warwick's College opened at Studley Castle.
- 1908 The name was changed to Studley College.
- 1913 Emily Helen Ekins (1877-1964) gained the first National Diploma in Horticulture awarded to a woman. She went on to get a BSc in Horticulture from the University of London and was principal at Studley from 1924-1946. She was awarded an OBE for services in advancing the education of women in agriculture.
- 1926 The college gained official recognition from the Ministry of Agriculture and Fisheries with concomitant grant support.
- The College closed after Ministry funding was withdrawn, despite the best efforts of the last principal, Elizabeth Hess and many supporters including the Women's Institute (see 1915). The Studley College Trust was established and continues to encourage, assist and develop education, instruction and research in agriculture, horticulture, forestry and allied subjects with scholarships, and bursaries for such matters.

1898 University of London

- 1898 The South Eastern Agricultural College, Wye (see 1896) became the Department of Agriculture, University of London.
- 1902 BSc honours degrees were awarded in Agriculture. This required intermediate studies in chemistry, botany, zoology

- and geology, studied in any department of the university, followed by two years where students studied agricultural botany, agricultural chemistry and two options from agricultural engineering, entomology, law, bacteriology, forestry, surveying, veterinary anatomy and medicine.
- 1906 Hop research commenced (see East Malling, 1913).
- 1929 Imperial College (see 1875 Dept. of Science and Arts at 1907) joined the University of London.
- The Departments of Botany, Zoology and Entomology, and Agricultural Chemistry acquired the Hurworth Estate, Slough for field trials.
- 1931 The Institute of Plant Physiology, Imperial College, came under the Agricultural Research Council.
- 1945 Wye College absorbed Swanley Horticultural College, Kent (see 1889).
- 1947 Imperial College acquired Silwood Park, now home to a number of research units including: the Division of Ecology and Evolution, the Centre for Environmental Policy and the International Pesticide Application Research Centre (IPARC)
- 1949 The University absorbed the Royal College of Veterinary Surgeons (see 1791).
- 1953 The ARC Unit of Plant Growth Substances and Systemic Fungicides was established at Wye under the directorship of Professor R Louis Wain (1911-2000). The Unit closed on Professor Wain's retirement in 1978 when staff largely went to Long Ashton (see 1903).
- 1959 The Research Institute of Plant Physiology at Imperial College (see 1875) was dissolved and an ARC Unit of Plant Physiology formed under the direction of Professor Helen K Porter (1899-1987). It was disbanded in 1971.
 - An ARC Unit of Plant Morphogenesis and Nutrition was formed under the direction of Dr F J Richards (1901-1965)

- which was disbanded on his death in 1965, the work being absorbed by Wye College.
- 2000 Wye was removed from independence within the University of London merging with Imperial College to become Imperial College at Wye.
- 2002 Imperial College's constituents (such as the Royal College of Science) lost independence to become faculties of Imperial.
- 2005 Biological sciences of relevance to agriculture dealt with by the Faculty of Natural Sciences.
- 2007 Imperial College gained independence from the University of London (see 2007).

1899 Department of Agricultural and Technical Instruction, Dublin

The department was formed in response to the report of Sir Horace Plunkett (see 1894) to improve Irish agriculture through education and the encouragement of local co-operation and initiative. The department's work, which included training national school teachers in rural science and domestic economy, and improving plant and livestock breeds, was hampered by the (erroneous) suspicions of nationalists who saw it as an attempt to undermine aspirations to self-government by improving living standards.

1922 The department was absorbed by the Department of Lands and Agriculture on Irish independence.

1899 Hampshire Farm Institute, Basing, Hampshire

The Hampshire Farm School was established in Basing, by Hampshire County Council.

1914 Operations transferred to Westley Farm, Sparsholt.

It is now known as Sparsholt College, currently farming 176 ha with dairy, beef, pigs, sheep, poultry, deer and fisheries.

1899 International Congress of Women

This influential congress was held in London in July 1899. It led, among other things, to the formation of the Women's Agricultural and Horticultural International Union, see 1899 below.

1899 Saxmundham Experimental Field, Suffolk

Saxmundham is one of the longest running field trials on fertilisation and crop rotation.

The management was taken over by Rothamsted (see 1843).

1899 Women's Agricultural and Horticultural International Union

This organisation was established by a group of women (including Fanny Wilkinson, see 1889 Horticultural College, Swanley) who had attended the International Conference of Women Workers in London in 1899 and were concerned about the lack of education and employment opportunities for women working on the land.

- 1910 The name was changed to the Women's Farm and Garden Union.
- 1915 The organisation worked with the Ministry of Agriculture in launching the Women's National Land Service Corps, soon re-named the Women's Land Army, to train women for farm work in wartime.
- The name, again, changed to the Women's Farm and Garden Association under which it still operates.
- 1922 A 98 acre farm was acquired in Lingfield, Surrey through Louisa Jebb Wilkins (see 1896 University of Cambridge).

The society is currently based at Circnester, Gloucestershire. See Women rule the plot: The story of the 100 year fight to establish women's place in farm and garden by Peter King (1999).

1900 Agricultural Botany - theoretical and practical by John Percival (1863-1949), a professor at the University of Reading for much of his career. This ground breaking book ran to many editions.

1900 Royal Veterinary College of Ireland, Dublin

The RVC was established in Ballsbridge, Dublin under the direction of the Royal College of Veterinary Surgeons, London (see 1791).

1914 Management was taken over by the Department of Agriculture and Technical Instruction.

1901 Aynsome Agricultural Experimental Station, Grange-over-Sands, Lancashire

The station was started and run by agricultural chemist brothers John Stewart and Thomas Machell Remington, along with Borwicks Aynsome Farm. There is record of the experimental work having been started by John some time before this date in Lancaster.

- 1905 The partnership was dissolved with John taking sole charge of the Experimental Station and Thomas running the farm.
- 1914 Closed at the outbreak of war.

1901 Edinburgh and East of Scotland College of Agriculture

This College absorbed the Edinburgh School of Rural Economy (see 1894), which had begun offering extension courses in 1894. It led to the Scottish Agricultural College (see 1990), along with the other regional colleges.

- The Sourhope Experimental Hill Farm, near Kelso was acquired. In 1954 it was transferred to the Hill Farming Research Organisation (see 1954), it became one of the Environmental Change Network stations (see 1992). Operations at Sourhope ceased in 2006.
- 1990 The College merged with the West of Scotland Agricultural College and North of Scotland Agricultural College to form the Scottish Agricultural College, which retained the original campuses now the Scottish Rural University

1901 Harper Adams Agricultural College, Newport, Shropshire

The College was established with the £45,496 legacy of Thomas Harper Adams (1817-1892) left 'for the purpose of teaching practical and theoretical agriculture in England either by means of lectures or establishing a School of Agriculture' with the motto *utile dulce* (meaning usefulness and pleasure - often given the cod translation 'work hard play hard'). Although the college was initially a private establishment, the precise nature of the institution was heavily coloured by the trustees' referral to developments in the state sector.

The first principal was Percy Hedworth Foulkes (1871-1965), the son of a Welsh land agent, who had graduated in agricultural science from the University of Edinburgh and previously lectured in farm and estate management at University College, Reading.

- 1904 The college became an approved placed of instruction for Institution of Surveyors land agency training and remains one of the main providers of RICS accredited training for rural practice surveyors.
- 1926 The National Institute of Poultry Husbandry was established.
- 1991 The Crop and Environment Research Centre (CERC) was established.
- 1998 Re-named Harper Adams University College.
- 2012 Became Harper Adams University.

Harper Adams currently farms around 550 ha with dairy, beef, pig and poultry units, along with arable, conservation and woodland.

Principals	Percy Hedworth Foulkes (1871-1965)	1901-1922
-	Charles Crowther (1876-1964)	1922-1944
	Archibald McVicar (1903-1952)	1944-1946
	Bill Price	1946-1962
	Reginald Kenney	1962-1977
	Tony Harris	1977-1994
	Graham McConnell	1994-1996

Wynne J	ones
David L	lewellvn

1996-2009 2009-

See Heather Williams's *The Lure of the Land : a century of education at Harper Adams* published in 2000.

1902 4-H Clubs

4-H clubs can be traced back to Albert B Graham (1868-1960) whose Boys' and Girls' Agricultural Club first met in the Clark County Courthouse, Ohio. In the same year T A 'Dad' Erickson's after school agricultural clubs in Douglas County, Minnesota, both starting in 1902. The organisation gained national coverage under the US Department of Agriculture in 1914. Graham developed his ideas through the agricultural extension service of Ohio State University and saw the educational and character building benefits of both practical activity and, importantly, a measure of responsibility. 4 H stands for head, heart hands and health.

1902 Agricultural Organisation Society

Founded by Robert Armstrong Yerburgh (1853-1916) to support and share knowledge between cooperative societies on Horace Plunkett's Irish model (see 1894). Yerburgh served as president from the society's inauguration until his death. Its journal was variously called *Co-operation in Agriculture* or just the *Journal of the Agricultural Organisation Society*.

- 1915 Helped found and largely comprised first board of National Federation of Women's Institutes (see 1915), largely through the energies of AOS secretary John Nugent Harris.
- 1917 Responsibility for Women's Institutes transferred to the Board of Agriculture, Food Production Department, Women's Branch (under Meriel Talbot).
- 1922 Wound up.

1902 Education Act

County councils were charged with considering all the educational needs of their respective areas, including agricultural education.

1902 Marine Biological Sub-station, Lowestoft, Suffolk

The Lowestoft station was originally established for research in the plaice industry and to support the work of the International Council for the Exploration of the Sea, set up in the same year, of which the UK was an inaugural member, along with Denmark, Finland, Germany, The Netherlands, Norway, Sweden and Russia.

1997 Previously known as the Directorate of Fisheries Research, the name and status changed to the Centre for Environment, Fisheries and Aquaculture Science (Cefas), now an executive agency of Department of Environment, Food and Rural Affairs (Defra), along with operations in Weymouth (see 1969).

1903 Association to Promote the Higher Education of Working Men

This organisation, which became the Workers' Educational Association, was established by Albert Mansbridge (1876-1952) whose founding ideas bear repeating: he wanted an 'partnership between labour and learning', in which university authorities could be brought in touch with workers in a way which existing mechanisms, such as University Extension lectures and the Co-operative Movement did not entirely achieve. He believed that such an association would help to show that working people had the determination and ability to undertake serious, systematic study of a university standard. The 'partnership between labour and learning' was to be a true partnership in which workers would be helped in an objective search, in all branches of learning, to acquire knowledge which would enable them to decide for themselves what to think about the society in which they lived and worked.

Close links were formed with both the trades union and co-operative movements, along with university extension and classes run to this day in, among many other things, various aspects of agriculture and horticulture.

Many notables have had their educational start with the WEA, not least the farm worker Fred Kitchen (1891-1979) who first attended classes in Worksop 1933 and went on to write such classics of English farm working life as *Brother to the Ox; An Autobiography of an Agricultural*

Labourer (pub. 1940).

- 1905 Re-named the Workers' Educational Association, the name under which it still flourishes. See www.wea.org.uk.
- 1943 Plan for Education: a WEA report on educational reconstruction with an appendix on agricultural and rural education. This was the report by the WEA for the Butler Committee on Educational Reconstruction (see 1944).

As a measure of the organisation's influence in public life, it was calculated that in 1945 14 members of the Government were tutors, former tutors or members of the WEA Executive and 56 MPs were active in the WEA, either as tutors or students (*The Workers' Educational Association: The First Fifty Years* by Mary Stocks, pub. 1953).

Board of Agriculture and Fisheries, formerly the Board of Agriculture.

- 1916 Food Production Department established under Lord Selborne (President of the Board April 1915-June 1916) to deal with war time concerns of over-reliance on imports. There were initially six divisions: Local Organisation, Technical Division, Supplies, Horticulture (and Allotments), Labour, Cultivation.
- 1917 A Women's Brach was set up under the directorship of Meriel Talbot.

1903 Sir A Daniel Hall (1864-1942)

Sir (Alfred) Daniel Hall published one of his key works, *The Soil*, in 1903. Hall, from Lancashire, was a significant figure in British agriculture in the early decades of the twentieth century. Having gained a first class degree in Chemistry from Oxford, he became the first principal of Wye College (see 1896 South Eastern Agricultural College) in 1896 and moved to Rothamsted in 1902. He became a fellow of the Royal Society in 1909, secretary and, later, chief scientific adviser to the Board of Agriculture and a director of the John Innes Horticultural Institution in 1927, gaining his knighthood in 1918.

He gained particular influence through his work on Lloyd George's Development Commission (see 1909) to stimulate the economy of rural areas.

Towards the end of his life, in 1939, he became headmaster of Lord Wandsworth College in Hampshire (see 1928).

Although of less contemporary influence than *The Soil*, his most enduring book was *A Pilgrimage of British Farming* (pub. 1913), a collection of articles originally written for *The Times*, recording journeys made in the summers of 1910 to 1912 with T B Wood (see 1896 University of Cambridge at 1905) and Edwin Beaven (see 1905).

1903 Seaman Ashael Knapp (1833-1911)

Initiator of US Co-operative Extension Service

Seaman Knapp was a college teacher in New York who came relatively late to agriculture when an injury forced early, temporary retirement and he moved to farm in Iowa. His activities led to his becoming a Professor of Agriculture at Iowa State University and in getting involved with the meetings of an informal group designated The Teachers of Agriculture he became convinced of the effectiveness of practical demonstration, rather than the classroom, to teach farmers Importantly, he saw that this should be practical demonstration by peers. These ideas culminated in 1903 with the establishment of the first state funded Co-operative Extension Service. The Service is generally acknowledged to have been started with experiments and demonstrations on 70 acres of cotton at the Walter C Porter Farm, near Terrell, Texas.

1903 National Institute of Fruit and Cider, Long Ashton, near Bristol

Six ha of land was provided by Lady Emily Smyth (1835-1914) of Ashton Court, there having been private cider research conducted on the Long Ashton estate since 1893. The first chairman was Henry Hobhouse (see Sexey's School, 1891).

1912 The Institute became the Department of Agricultural and Horticultural Research, University of Bristol, re-named

Long Ashton Research Station, with further land provided by Lady Emily (see 1912).

1904 Association of Economic Biologists

The association was established to promote the study and advancement of all branches of biology and to foster the practice, growth and development of applied biology with particular reference to the production and preservation of food, fibre and other materials. Their HQ is at Wellsbourne, Warwickshire.

1934 Re-named the Association of Applied Biologists.

1904 Avondale, ¹⁵ County Wicklow

A forester school was started in a similar vein to the Parkend School of Forestry and Woodmen in Gloucestershire (see 1904 below). At this time, Ireland had no other academic or technical school of forestry whereas England and Scotland had forestry activity in a number of universities.

1904 Franciscan Brothers' Agricultural College, Mountbellew, County Galway

The first college of agriculture in Ireland was developed from primary, secondary and teacher training establishments already run at Mountbellew by the Franciscan Brothers (who came to area in 1818) with the support of the Ministry of Agriculture. It has had close links with the Galway Mayo Institute of Technology since 1986, and is now under the Agricultural and Food Development Authority (*Teagasc*) umbrella, and known as Mountbellew Agricultural College. It is still owned and managed by the Brothers.

The farm holding runs to 200 ha and, along with standard agricultural activities, the college has deer, an organic operation and Irish draught horses.

¹⁵ The family home of Charles Stewart Parnell (1846-91) who was a, rather *the*, key figure in Irish nationalism and land reform. The estate was sold by Parnell's young brother after his death.

1904 North of Scotland College of Agriculture, Aberdeen

The Scottish Farm Buildings Investigation Unit was part of this institution.

- 1943 The College acquired the Glensaugh Experimental Hill Farm in Kincardineshire, which was the first of the experimental hill farms. In 1954 Glensaugh was transferred to the Hill Farming Research Organisation (see 1954) and is now one of the Environmental Change Network stations (see 1992).
- 1990 North of Scotland merged with West of Scotland Agricultural College (see 1887) and Edinburgh and East of Scotland Agricultural College (see 1901) to form the Scottish Agricultural College (see 1990), which retained the original campuses
- 2012 Now part of the Scottish Rural University College (see 2012).

1904 School of Forestry and Woodmen, Gloucestershire

The school was established at Parkend in the Forest of Dean for the training of government foresters, at a lower academic level than the universities.

- 1919 Taken over by the Forestry Commission (see 1919).
- 1971 Closed.

1904 University of Liverpool

The Veterinary School opened, being the first in the UK to be formally attached to a university. It was essentially a transplanting of William Williams's new Veterinary College from Edinburgh (see 1873). The developments at Liverpool were particularly prompted by the numbers of valuable cattle in the Cheshire dairy industry and the large numbers of heavy horses in the Liverpool docks.

The school runs two farms on the Leahurst site in Cheshire: Wood Park Farm and the smaller Ness Farm.

1904 Welsh National Agricultural Society

Formed under the chairmanship of the George Charles Herbert, 4th Earl of Powis (1862-1952), it is now known as the Royal Welsh Agricultural Society.

1963 The Royal Welsh Show showground was established at Llanelwedd near Builth Wells, Powys.

1905 Edwin Sloper Beaven (1857-1941)

One of the last of the great amateur scientists, E S Beaven developed the four hybrid barleys, Plumage-Archer, which were introduced in 1905. He was formally untaught but awarded an honorary doctorate from Cambridge and wrote up the account of his long and valuable service to British agriculture in *Barley, Fifty Years of Observation and Experiment*, completed by his secretary and published after his death in 1947.

1905 Clonakilty Agricultural College, County Cork

The college, also known as Darrara College, was founded on land left for the purpose by one Daniel O'Leary. It was first used by the Department of Agriculture as a research station. Its retention by the state was initially contested by the daughters of a tenant evicted from the property in 1886. Their claim failed through being lodged too late and the college remains to date as a state provision for agricultural education.

The college holds 140 ha of farmland and, in addition to standard agricultural courses, liaises with the Cork Institute of Technology to offer a degree in Herbal Science.

1906 Ballyhaise Agricultural College, County Cavan

Founded at the architecturally significant Ballyhaise House, the college continues to provide agricultural and forestry training on a 220 ha holding, which includes 50 ha of nineteenth century planted woodland.

1906 Thomas Monroe Campbell (1883-1956)

Campbell became the first federal black extension agent on his appointment in Macon County, Alabama. The service had started as the Tuskegee Institute Movable School and was developed through the work of Booker T Washington (1856-1915) and George Washington Carver (see 1916) at the Tuskegee Institute, Alabama (originally an institution for black students only). Campbell went on to win the Harmon Award in 1930 for his services to agriculture and published *The Movable School Goes to the Negro Farmer* in 1936.

1906 Regulations for Technical Schools

The Board of Education introduced aid for agricultural education to around £30,000 per annum.

1907 Central Land Association

Later re-named as the Country Landowners' Association, now the Country Land and Business Association (CLA). The Association started under the chairmanship of William Onslow, 4th Earl of Onslow (1853-1911) and the presidency of Walter Long, 1st Viscount Long (1854-1924) in response to a leaflet entitled The Land and the Social Problem. Written by Algernon Turnor (1845-1922), it criticised British agriculture for failing to adapt to changing conditions and blamed politicians for their lack of foresight in their treatment of the industry. He advocated the co-operation of owners, tenants and workers in the Algernon work in liaison with his cousin common interest. Christopher Hatton Turnor (1873-1940), heir to the 24,000 acre estate centred around Stoke Rochford Hall, Lincolnshire. Christopher Turnor, educated at the Royal Agricultural College and Christ Church, Oxford, was himself a great promoter of agricultural, and other, education for the rural population. The Hall was sold in 1948 for use as a College of Education.

1908 International Institute of Agriculture

This body was set up in Rome with funding from King Victor Emmanuel III of Italy, through the efforts of the American agriculturalist, David Lubin (1849-1919), to provide an international repository for agricultural statistics. It is included in this collation as having built up an important agricultural library.

The Institute wound up as an independent body and was transferred to the David Lubin Memorial Library held by the Food and Agriculture Organisation (FAO) of the United Nations and is considered to be one of the world's finest agricultural collections covering: Agriculture, Food and Nutrition, Rural Development, Plant Production and Protection, Animal Production and Health, Agricultural Machinery, Agro-industries, Agro-forestry, Forestry, Fisheries, Sustainable Development, Statistics, Agricultural Economics and other related subjects.

1908 Knaresborough Rural Secondary School, West Yorkshire

On petition from local farmers, a school for 12-15 year olds (later extended to younger years) was established on the site of the old King James Grammar School, with a view to a measure of agricultural training. Although following a standard curriculum in part, with representations from the Board of Education that too young a bias was inadvisable, the tenor of the school can be seen in farm visits, older boys going to ploughing matches and gardening work being built around the Norfolk 4-course rotation. Along with the school at Welshpool (see 1908), this venture was the subject of significant study and commentary by the Board of Education and the Ministry of Agriculture.

1908 Norfolk Agricultural Station, Wymondham, Norfolk

The station started as an independent, charitable organisation to provide trials aid to local farmers. It soon gained a national reputation. Three sites have been occupied:

Jex Farm, Little Snoring (1908-1920)

Middle Farm, Newton St Faith, Sprowston (1921-1924)

Morley Manor Farm, Morley St Botolph (1965 - date)

This station developed into the Morley Research Centre, supporting research and education to the benefit of farming in the East of England. Farming operations moved from Sprowston in the 1970s.

2003 The station became The Morley Agricultural Foundation (TMAF).

1909 National Farmers' Union

Although the NFU has a key political lobbying remit it has always been a major source of technical and legal information for farmers and growers.

Where previous national and regional groups had largely concentrated either on technical improvements or the landlord / tenant relationship, the NFU was more concerned, from the outset, with the relationship of farmers with government and in developing and influencing policy.

It gained in credibility, influence and membership under the first presidency of Colin Campbell (1863-1933), who came to national office via the Lincoln Farmers Union.

See From Campbell to Kendall: A History of the NFU by Guy Smith (2008).

1908 Report on Agricultural Education in England and Wales. Chairman: Donald Mackay, 11th Lord Reay (1839-1921).

This report particularly prompted the development of an extension service of regional peripatetic advisers attached to agricultural colleges. It led to advisers in agriculture, mycology, botany, entomology, chemistry, veterinary sciences, agricultural economics (including farm management and accounting) and dairy bacteriology in most regions.

1908 Ulster Dairy School, Loughry, Cookstown, Co. Tyrone

Land was purchased in 1906 from the Lindesay family by the Ministry of Agriculture and Technical Instruction to provide a school for girls covering dairying, poultry and 'housewifery'. The site now forms the Loughry campus of the College of Agriculture, Food and Rural Enterprise (CAFRE, see 2004).

1908 Welshpool County School for Boys, Monmouthshire

An 'experiment in rural education' was established which became heavily reported both nationally and overseas. The idea was to furnish rural boys with a foundation more closely aligned than the general curriculum to the farming studies and practice they would encounter in later life.

1909 Bradfield College Ranch, Calgary

A ranch was set up under the private funding of headmaster Herbert Gray (1851-1929) for the training of pupils from Bradfield College public school, Berkshire, for agricultural careers in Canada. There were many initiatives in this period aiming to equip people for a successful life in the colonies. Sadly, the ranch was not a success with a detrimental effect to both the finances and health of Dr Gray.

1909 Development and Road Improvement Funds Act

Although not altogether clear from the title, this legislation, part of Lloyd George's 'People's Budget', included the provision of funding for 'scientific research, instruction and experiment in the science, method and practice of agriculture', including the provision of farm institutes, and led to the establishment of the Development Commission which managed the Development Fund for agricultural education and research. This fund was initially almost £3 million, to be directed in three key strands.

Firstly, some of the fund was set aside for the establishment of farm institutes, per the recommendations of the Reay report (see 1908), which included the development of a system of county advisers, who were the link between the teaching institutions and working farmers.

Secondly, there was the creation of a network of agricultural research stations, embedding a fundamentally scientific approach to agricultural problems.

Thirdly, there were monies available for scholarship for graduate research students.

1909 Development Commission

This was set up by Lloyd George to administer the Development and Road Improvement Funds Act monies (see 1909) for the general aid and improvement of rural areas with, in part, a specific remit regarding agricultural education. The original commissioners included A Daniel Hall (see 1903) and the reforming socialist, Sidney Webb (1859-47).

- 1988 The Development Commission amalgamated with the Council for Small Industries in Rural Areas (CoSIRA) to become the Rural Development Commission.
- 1999 The Rural Development Commission split into the Regional Development Agency and the Countryside Agency.
- 2006 The Countryside Agency split with one part joining English Nature to form Natural England and the other part becoming the Commission for Rural Communities (CRC).
- 2013 The Commission for Rural Communities with, as can be seen, a line reaching directly back to Lloyd George's Development Commission, ceased.

1909 University of Manchester

- 1909 Degree and diploma courses started in affiliation with Holmes Chapel College of Agricultural (see 1909).
- c1930 Agricultural Entomology Institute established.
- 1934 Operations transferred to Rothamsted (see 1843).

1909 Newbury and District Agricultural Society

The Society was established primarily to run the annual show, currently run as the Royal County of Berkshire Show at Chieveley. It has as one of its key aims the promotion and improvement of the education of the public in agriculture, horticulture, forestry and rural crafts.

1910 Central Association of Agricultural Valuers (CAAV)

This body was formed by representatives of local valuers' associations

(the earliest of which had been formed in Suffolk in 1847) to provide a national organisation with professional authority to represent valuers and ensure professional standards. The examinations remain a benchmark of achievement for professional advisers in the rural sector.

1910 Felix Thornley Cobbold Agricultural Trust, Lackford, Suffolk

Felix Cobbold (1841-1909), educated at Eton and Oxford, became a brewer, farmer and Liberal MP (for Stowmarket and, later, Ipswich). On his death, a Trust was established to acquire and maintain a farm or farms as centres for demonstrating, apprenticing and generally to advance and improve agriculture and, in particular, to educate farmers and young persons in agricultural methods, development and techniques.

The Trust has leased farms to Otley College since the 1960s.

1910 Rupert Guinness, Viscount Elvedon, 2nd Earl of Iveagh

- 1910 Woking Park Farm, with 500 acres, was acquired to establish a training school in agriculture for prospective emigrants to Canada.
- 1913 Guinness funded a research chemist at Rothamsted to develop useful manure, foreseeing that the growing use of cars would diminish the availability of horse manure.
- 1958 The first recipient of the Landowners Gold Medal awarded by the Royal Agricultural Society.

Guinness, and his wife, Lady Elveden, were also closely involved with the National Institute for Research in Dairying (see 1893 - University College, Reading) and Chadacre Agricultural Institute (see 1920).

1910 Imperial Agricultural Bureaux

1910 This commonwealth group was an international service for agricultural information, pest identification and biological control. Its origin can be traced back to the Entomological Research Committee (Tropical Africa). Sir Guy Marshall

- (1871-1959) was the first scientific secretary. The *Bulletin of Entomological Research* was established around the same time.
- 1913 The Imperial Bureau of Entomology evolved from the Entomological Research Committee and the Review of Applied Entomology was first published. Sir Guy remained as director of Entomology until his retirement in 1942.
- 1927 Imperial Agricultural Research Conference held in London.
- 1930 The Imperial Agricultural Bureaux was formed.
- 1933 The Imperial Bureaux of Mycology transferred to the Imperial Agricultural Bureaux and was re-named the Imperial Mycological Institute (IMI) which, in 1948 became the Commonwealth Mycological Institute. In 1986 it became the International Mycological Institute.
 - The Imperial Bureaux of Entomology transferred to the umbrella Bureaux and became the Imperial Institute of Entomology and, in 1947, the Commonwealth Institute of Entomology.
- 1938 The Bureaux of Dairy Science and Forestry merged with the Imperial Agricultural Bureaux
- 1947 The Imperial Agricultural Bureaux was re-named as the Commonwealth Agricultural Bureaux.
- 1966 The Bureau of Agricultural Economics became part of the Commonwealth Agricultural Bureaux.
- 1978 Training courses on Information in Agriculture started for scientists and librarians.
- 1986 The Commonwealth Agricultural Bureaux became CAB (Centre for Agricultural Bioscience) International.

1910 John Innes Horticultural Institution (JIHI), Merton, London

This Institution was financed by the will of John Innes (1829-1904), a London property developer who built Merton garden suburb. The first director was William Bateson (1861-1926), a geneticist who brought the

ideas of Gregor Mendel¹⁶ (1822-1884) to England.

It is now one of the eight bodies funded by the BBSRC.

- 1931 The institution was brought under Agricultural Research Council support.
- 1953 Operations moved to Bayfordbury, near Hartford.
- 1958 Staff were absorbed on the closure of the Oxford ARC Unit of Plant Cell Physiology (see 1840 at 1953).
- 1967 Activities moved to Colney, Norwich (see 1967). The ARC Unit of Plant Virus Research, having grown out of the Potato Virus Research Station at Cambridge (see 1896 University of Cambridge at 1947), was transferred into the John Innes Horticultural Institution.
- 1989 The Sainsbury Laboratory was established on the same site, independent of, but with close research and administrative links to, John Innes.
- 1990 The Institute of Plant Science Research (see 1952) joined the organisation.
- 1992 The Nitrogen Fixing Laboratory joined.
- 2012 A large injection of funding was gained from the Bill and Melinda Gates Foundation.

1910 Northern Ireland Forest Service

This is the state forestry service for Northern Ireland. Its activities commenced with the acquisition of the Ballykelly Forest, near Derry. Since the establishment of the Forestry Commission (see 1919), the Service is technically under the principalship of the Commission, but powers are devolved through to what is now the Department of Agricultural and Rural Development (DARDNI).

An excellent history of the Service, against the backdrop of Irish land

The Silesian abbot who carried out pioneering work on plant hybridisation, working on pea plants in trials beds at his monastery, St Thomas at Brno in what is now the Czech Republic.

tenure and independence, is available to download from the NIFS website.

1910 Rural Education Conference

This body, in liaison with the Agricultural Education Association (see 1894) and the RASE, considered agricultural education in rural areas through the work of the Board of Agriculture and the Board of Education.

1910 Society of United Irishwomen

The society was started by a group of women in Bree, Co. Wexford, 'to improve the standard of life in rural Ireland through education and cooperative effort.' It was expressly non-denominational and non-political. It grew as a sister organisation to the Irish Agricultural Organisation Society (see 1894). It was, and is, the Irish version of the Women's Institute (see 1915).

- 1935 Name changed to the Irish Countrywomen's Association, largely to avoid any confusion with the name of the United Ireland Party.
- 1953 *An Grianán*, a residential college, was established in Termonfeckin, Co. Louth and continues to run courses and activities for ICA members and others.

1911 Home Office Experimental Station, Cumberland

The government station for research into health and safety was originally established for the coal industry, mining then killing some 1,000 men per annum. Sadly, the most dangerous industry today is agriculture and its related sectors.

- 1944 The station moved to the current Buxton, Derbyshire site.
- 1974 It became Health and Safety Executive Research and Laboratory Services.
- 1995 Became the Health and Safety Laboratory.

1911 Llysfasi Farm Institute, Ruthin, Denbighshire

Originally called Llysfasi Manor Farm School, the institute was established by Charles Sanders on land purchased from the Myddleton family on the break up of the Ruthin Castle estate. Financial difficulties soon forced sale to Mr R Brown, a Birkenhead cotton broker.

- 1919 The establishment was sold to Denbighshire County Council.
- 1967 Re-named Llysfasi College of Agriculture.
- 2009 The college merged with Deeside College (along with Padeswood Hall, see 1920s).

1911 Wallingford Farm Training Colony

Later known simply as Turner's Court, the colony was set up by a non-conformist group through the National Union for Christian Social Service (later the Christian Service Union), which had been established by Rev. JFB Tingling, a Congregationalist minister in the 1890s. The school was, however, multi-denominational.

See Christopher Sladen's Oxfordshire Colony: Turner's Court Farm School, Wallingford, published in 2011.

1991 Closed.

1912 County Antrim Agricultural School, Greenmount, Northern Ireland

The Manor and college site was purchased from the Thompson family in 1910 by the Co. Antrim Committee of Agriculture. It included an important walled garden still used by horticultural students today. The School was formed under the management of the Department of Agricultural and Technical Instruction (see 1899) and later became Greenmount Agricultural College.

2004 Greenmount merged with Loughry (see 1908) and Enniskillen (see 1967) Agricultural Colleges to form the College of Agriculture, Food, and Rural Enterprise (CAFRE, see 2004).

1912 University of Bristol

The National Institute of Fruit and Cider became the Department of Agricultural and Horticultural Research, University of Bristol, re-named the Long Ashton Research Station, with further land provided by Lady Emily Smyth, the original benefactor of the Institute (see 1903).

- 1917 The Ministry of Munitions afforded grants for year-long fruit growing courses for disabled servicemen.
- 1918 The Chipping Campden Station for Fruit and Vegetable Preservation, Gloucestershire was established.
- 1931 The station was brought under Agricultural Research Council support.
- 1948 The School of Veterinary Science opened, with the first students accepted in 1949.
- 1952 Long Ashton became an ARC Unit of Plant Nutrition.
 The veterinary field station laboratories at Langford House were acquired.
- 1978 Campden BRI (see 1978), an independent research organisation for the food and drink industry, was formed from the merger of the Campden and Chorleywood Food Research Association (CCFRA) and the Brewing Industry Research Foundation, absorbing the Chipping Campden Station (see 1918 above).
 - Staff were absorbed on the cessation of the ARC Unit of Plant Growth Substances and Systemic Fungicides, Wye College (see 1898 at 1953).
- 1986 Long Ashton became part of the Institute of Arable Crops Research, Rothamsted (see 1843), with some operations merging into the Institute of Food Research, Colney, Norwich (see 1967).
- 2003 The Long Ashton site was closed by the BBSRC.
- 2005 LESARS, the Lady Emily Smyth Agricultural Research Station, was established with funds from the sale of Lady

Emily's original endowment land.

1912 Edna Westbrook Trigg (1868-1946)

Whilst the principal of a rural school in Texas, Mrs Trigg recognised the need for specialist education for farm women. She organized local workshops in homemaking, growing and food preservation. In 1912 these classes evolved into 'Girls' Tomato Clubs' in rural Milam County, Texas where local girls grew, bottled and marketed tomatoes. This work was absorbed by the 1914 United States Department of Agriculture (USDA) Cooperative Extension Service and Home Demonstration and Edna Trigg became the first County Home Demonstration Agent in Texas.

1913 The Board of Agriculture and the Development Commission assigned funds to institutions in accordance with specific research areas. See an updated list at 1930.

Imperial College, London plant physiology
Kew plant pathology
John Innes Institution plant breeding
Wye fruit production
Long Ashton Institute fruit production

Rothamsted plant nutrition and soils

Royal Veterinary College animal pathology

Reading University dairying

Manchester University agricultural zoology
Birmingham University agricultural zoology
Cambridge University animal nutrition
Leeds University animal nutrition

Oxford University agricultural economics

1913 East Malling Fruit Research Station, Kent

This research station was originally run by Wye College (see 1896) and absorbed, among other things, Wye's hop research programme.

1921 The Kent Incorporated Society for Promoting Experiments in Horticulture took over the management.

- 1931 East Malling was brought under Agricultural Research Council support.
- 1938 The 360 acre Bradbourne House estate was added to the research station.
- 1969 The Ditton Laboratory (see 1928) was taken under the management of East Malling.
- 1982 The National Hop Association took on the co-ordination of hop research.
- Some operations moved to the Institute of Food Research, Colney, Norwich (see 1967).
- 1990 The organisation was merged into Horticultural Research International.
- 1992 The Ditton Laboratory operations ceased with the development of the Horticultural Research International (HRI, see 1990) facilities.
- 2010 East Malling activities were taken over by the East Malling Trust. Hop research is now managed through the National Hop Association under private sponsorship of the growers and brewers.

1913 Institute for Animal Nutrition, Aberdeen

The Institute was established under John Boyd Orr (1880-1971) in Marischal College, Aberdeen (see 1895) and governed jointly by the University of Aberdeen and the North of Scotland Agricultural College (see 1904). Boyd Orr (later Baron Boyd Orr of Brechin Mearns) went on to become a founder member of the UN Food and Agriculture Organisation in 1942 and was awarded a Nobel Peace Prize in 1949.

- 1920 The organisation became the Rowett Institute of Animal Nutrition.
- 1925 The Duthie Experimental Farm was acquired and named after cattle breeder John Duthie Webster.
- 1931 The Rowett Institute was brought under Agricultural Research Council support.

2008 The institute merged into the University of Aberdeen and is currently the Rowett Institute for Animal Nutrition and Health, part of the Aberdeen Research Consortium (see 1993).

1913 Madryn Castle Farm School, Pwllheli, Caernarvonshire

- 1952 The School closed and moved to Plas Glynllifon.
- 1954 Re-named Glynllifon Agricultural College later Coleg Glynllifon.
- 1993 The institution merged with Coleg Meironnydd to form Coleg Meiron-Dwyfor, retaining the Glynllifon campus.
- 2010 Coleg Meiron-Dwyfor merged with Coleg Llandrillo Cymru.

1913 Monmouthshire Institute of Agriculture and Horticulture,

Also known as Usk College of Agriculture, this is now part of Coleg Gwent.

c1914 Department for Scientific and Industrial Research

This Department was established in the war in preparation for progress when peace was restored.

1914 Cheshunt Experimental Horticultural Station, Turners Hill, Hertfordshire

This station was established for horticultural research as the Nursery and Market Garden Industries Development Society.

- 1931 It was brought under Agricultural Research Council support.
- 1953 Some facilities moved to Littlehampton to form the Glasshouse Crops Research Institute (see 1953).
- 1989 The station closed.

1914 Food Science Laboratory

The laboratory was originally based in Great Westminster House, London, largely to check the specifications (e.g. protein content) and quality (against deterioration) of food stockpiled against the risks inherent in war time.

- 1960s Part of the operations moved to Norwich, although the London HQ was maintained.
- 1977 The London offices moved to premises in Romsey Road which were shared, incidentally, with Horseferry Road magistrates.
- 1990 The laboratory moved to the Colney Lane site in Norwich and expanded links with neighbouring institutes: the Institute of Food Research (see 1986), the British Sugar Technical Centre, the John Innes Research Centre (see 1910) and the University of East Anglia, as part of the formation of the Norwich Research Park.
- 1999 Became part of the Central Science Laboratory (see 1988), moving to Sand Hutton.

1914 Institute for Plant Pathology, Kew

- 1918 The Plant Pathology Laboratory was formed, taking over the Institute's work.
- 1920 It moved to Harpenden.
- 1960 Moved to new, purpose built premises with three departments: Entomology, Plant Pathology and Chemistry, including the Pesticide Registration Department.
- 1971 It was brought within the Agricultural Science Services under ADAS (see 1946 NAAS).
- 1979 Re-named Harpenden Laboratory.
- 1988 Merged with the Pest Infestation Control Laboratory (see 1940) and launched as the Central Science Laboratory (see 1988).

1914 Hoke Smith (1855-1931)

Hoke Smith, a US Senator from Georgia, is included for his sponsorship of legislation supporting agricultural education.

Smith was active in achieving progressive reform legislation to improve rural life, education and natural resource conservation and in 1914 served as Chairman of the Commission on National Aid to Vocational Education. This resulted in the Smith-Lever Bill of 1914, which established the federal financial basis of the Cooperative Extension Service in conjunction with Land-Grant colleges and 4-H Club activities.

The Vocational Educational Act of 1917, which Smith co-sponsored, fostered the development of the Future Farmers of America (FFA).

Smith was a lawyer, publisher and active politician. In addition to serving two Senatorial terms in Congress, he was served twice as Governor of Georgia and was US Secretary of the Interior from 1893 to 1896.

1915 County War Agricultural Committees

These committees were set up at the instigation of the Milner Committee. As part of their remit, they carried out county surveys and promoted the improvement of food production through education.

1915 Report of the Agricultural Education Conference on Agricultural Education for Women - The Barnard Report.

1915 Women's Institute

The Women's Institute in England and Wales was set up through the combined impetus of the Agricultural Organisation Society (see 1902) secretary, John Nugent Harris following the Canadian model established in Ontario in 1896 and brought to England through the indefatigable energies of Margaret 'Madge' Watt (1868-1948).

1917 Responsibility and funding transferred to the Board of

Agriculture, Food Production Department, Women's Branch with the founding of a National Federation under the formidable first presidency of Lady Gertrude 'Trudie' Denman (1884-1954). Objectives included education in matters relating to rural life, crafts, homemaking and agriculture, and these aims are still in the constitution today. The First and Second World Wars particularly prompted the remit in food production and preservation.

- 1939 Contrary to the general view, the *jam* element of the 'jam and Jerusalem' tag was not the result of a cosy domestic scene but of a highly organised operation of some 2,600 fruit preserving centres set up in many villages from 1939 to ensure optimum use of locally grown produce and the fair distribution of rationed sugar and the resulting jam throughout the Second World War. The 'jam factories' were set up by the Produce Guild and supported with demonstrators, some of whom received their training in soft fruit preservation at Long Ashton (see 1903).
- 1948 Denman College, for residential courses, was established in 1948 on what had been the Marcham Park estate in Oxfordshire.

See The Story of the Women's Institute Movement in England and Wales and Scotland by JW Robertson Scott (1925), The History of The Women's Institute Movement of England and Wales by Inez Jenkins (1953) and, more recently, Jane Robinson's A Force to be Reckoned With (2012) and Julie Summer's Jam Busters (2013).

1916 George Washington Carver (c1864-1943)

Carver was an outstanding African American agricultural botanist and mycologist, gaining his academic qualifications as the first black student at Iowa State University. In 1916 he became one of the few Americans to be admitted to the Royal Society (see 1662). He particularly aided agricultural development and the living standards of poor farm families with his work on alternative crops to cotton, notably peanuts, soybeans and sweet potatoes. He headed the Agriculture Department of the Tuskegee Institute, Alabama (originally for blacks only) for 47 years

from 1896. As well as original research and university teaching, he wrote over 40 bulletins for farmers to disseminate practical information.

1916 Women's Land Army

Established in January 1916 under the name Women's National Land Service Corps under the chairmanship of Meriel Talbot (1866-1956) of the Board of Agriculture. (Miss Talbot, later Dame, became the director of the Women's Branch of the Food Production Department in 1917.)

The Land Army had three branches: agriculture, forage and timber.

- 1917 In January 1917 the Women's Land Army was formed.
- 1918 The Landswoman produced as the Women's Land Army's own magazine. The Women's Institute shared it until they had their own publication, *Home and Country*, from March 1919.
- 1919 Disbanded in November.
- 1939 Re-established under the chairmanship of Lady Denman.

1917 Central Veterinary Laboratory (CVL), Weybridge, Surrey

A predecessor to the CVL can be traced to a facility in 1864 set up to investigate an outbreak of cattle plague (rinderpest) but it was formally established in 1917.

- 1922 Veterinary Centres were established, attached to regional agricultural colleges.
- 1931 Brought within the Agricultural Research Council.
- 1990 The CVL was launched as an executive agency of MAFF.
- 1995 The CVL and the Veterinary Centres merged to form the Veterinary Laboratories Agency.
- 2011 The Animal Health and Veterinary Laboratories Agency was formed after the merger of Animal Health (not to be confused with the Institute for Animal Health, see 1987)

and the Veterinary Laboratories Agency.

1917 Cold Storage Research Board

This Board was established for research into the preserving of food by cold storage and other means.

- 1918 It was re-named the Food Investigation Board.
- 1922 Merged into the Low Temperature Research Station, Cambridge (see 1896 University of Cambridge at 1922), set up by the Department of Scientific and Industrial Research (see c1914). This station dealt largely with meat, eggs and poultry with further work on meat carried out at the Smithfield Laboratory.

1917 Official Seed Testing Station (OSTS)

The war prompted the need for increased production, leading to a requirement for testing seed for purity and germination.

1921 The OSTS moved to the National Institute for Agricultural Botany (NIAB, see 1919), Cambridge becoming one of the branches of the Institute.

1917 Scottish Women's Rural Institute

The Scottish Women's Institute movement started at Longniddry, East Lothian under the first chairmanship of Mrs Clayre Anstruther Gray (d.1958)

1924 Publication of the SWRI magazine Scottish Home and Country.

1918 Fisheries Experimental Station, Conway, North Wales

The Conway station was originally established for research into the cultivation of mussels and other bivalves.

2001 The unit closed and the work was transferred to Weymouth (see 1969) and the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

1919 Agricultural Wages Board

Not, of course, directly related to education and research but a key move in raising the status and conditions of agricultural workers.

2013 The Board was wound up.

1919 Forestry Commission

Following the report of the Forestry Sub-Committee chaired by Sir Francis Dyke Acland¹⁷ (1874-1939), the government established the Forestry Commission under the Forestry Act 1919, with research as a key function.

The Commission ran a number of Forester Training schools, all closed many years ago with such training now dealt with in university and college courses, independent of the Commission. They also took over the School of Forestry and Woodmen, Gloucestershire (see 1904) and Avondale in Co. Wicklow (also 1904). Schools were variously at:

Burley, New Forest Chopwell Wood, Co. Durham Beaufort, Inverness Benmere, Argyll Glentress, Peebles Faskally, Pitlochry Gwydr, Caernaryon

- 1929 Forest Research was established as the research arm of the Commission. In addition to the three research units, the work of Forest Research is supported by five field stations under the Forest Research Technical Services Unit.
- 1946 The research unit at Alice Holt Lodge in Surrey was established. Alice Holt is now one of the Environmental Change Network stations (see 1992).

¹⁷ Grandson of Sir Thomas Dyke Acland, who was so influential in the progress of agricultural education (see 1777) and son of Sir Arthur (see 1887).

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- 1970 The Northern research unit was set up at Roslin, near Edinburgh.
- 2003 Separate bodies were established for England, Scotland and Wales
- 2009 The Aberystwyth research unit was established.
- 2013 The Welsh division was absorbed into Natural Resources Wales.

1919 Plunkett Foundation

Initially known as the Horace Plunkett Foundation founded by Sir Horace Plunkett (see 1894 and 1934).

1919 Kent Farm Institute, Kent

Sometimes called the Borden Farm Institute or Sittingbourne Farm Institute, it was established with the purchase of Grove End Farm, Tunstall.

- 1929 Nearby Borden Grammar School was occupied by the Farm Institute.
- 1958 The farm merged with Swanley Horticultural Institute (see 1889) to form the Kent Farm and Horticulture Institute.
- 1960 Property was purchased at Hadlow to bring the two institutes closer together.
- 1966 The agricultural division moved to Hadlow.
- 1967 The horticultural division moved to Hadlow, and the combined institute was re-named the Hadlow College of Agriculture and Horticulture, now Hadlow College.

Ministry of Agriculture and Fisheries, formerly the Board of Agriculture and Fisheries.

1919 National Institute for Agricultural Botany (NIAB), Cambridge

NIAB was founded through the initiative of Sir Lawrence Weaver (1876-1930), the Commercial Secretary of the Board of Agriculture and Fisheries, with the objective of promoting the improvement of existing varieties of seeds, plants and crops and aiding the introduction or distribution of new varieties.

- The Potato Testing Station was established at Ormskirk. This closed in 1939 with the potato testing function moving to Harpenden (see 1914 Institute for Plant Pathology, at 1920).
- 1921 The Official Seed Testing Station (see 1917) moved to NIAB.

A significant boost in funding came from the Corn Production Acts repeal monies (see 1921).

- 1931 It was brought within the Agricultural Research Council.
- 1942 The Seed Production Council was established.
- 2009 The Arable Group (TAG) integrated with NIAB to form the NIAB Group.

1919 Olympia Agricultural Research Co., Offchurch, Warwickshire

This was an independent company established to provide agricultural advice and 'conduct scientific agricultural research for the benefit not only of the Company but of British agriculture in general.' Sadly, the very promising operations ceased when the founder, Lord Manton (1873-1922), was killed in the hunting field. The MD, Charles Crowther (1876-1964), subsequently took the principalship of Harper Adams Agricultural College.

1919 Seale-Hayne Agricultural and Technical College, Newton Abbot, Devon

The College was established following a £100,000 bequest from the Rt Hon Charles Seale-Hayne (1833-1903), a local land owner, barrister and Liberal MP, to be invested in establishing a 'college for agricultural and technical education in the immediate neighbourhood of Newton Abbott.'

- 1978 The name was changed to Seale-Hayne College.
- 1989 It joined with Plymouth Polytechnic, and was incorporated into Polytechnic South-West.
- 1992 Seale-Hayne became the Faculty of Agriculture, Food, and Land-Use at the new University of Plymouth.
- 2005 The University of Plymouth closed the college.

1920s Higher Education - the definition and split between higher and further education has been somewhat fluid, particularly in the early twentieth century, but in the mid-1920s the Ministry of Agriculture listed the following bodies as providing higher education in agriculture and veterinary science in England and Wales:

University College Wales - Aberystwyth
University College Wales - Bangor
University of Cambridge, Dept of Agriculture
University of Leeds, Dept of Agriculture
University of Reading, Dept of Agriculture
Royal Agricultural College
Harper Adams - National Poultry Institute
Seale-Hayne Agricultural College
Swanley Horticultural College
Studley Horticultural College
Studley Horticultural College
South-East Agricultural College, Wye
University of Liverpool, Veterinary Department
Royal Veterinary College, London

1920s Farm Institutes - this Ministry of Agriculture list from the late 1920s shows those institutions offering national diplomas in agriculture, dairying or horticulture at the time :

Reaseheath, Cheshire
Newton Rigg, Cumberland and Westmorland
Chadacre, Essex¹⁸
Sparsholt, Hampshire
Oaklands, Hertfordshire
Moulton, Northamptonshire
Borden, Kent
Hutton, Lancashire
Kirton, Lincolnshire
Cannington, Somerset
Pibwlrwyd, Carmarthen
Madryn Castle, Caernarvon
Llysfasi, Denbighshire
Usk, Monmouthshire

1920s Northern Poultry Breeding Station, Cheshire

This research station was set up at Reaseheath, near Nantwich (see 1886).

1931 The station was brought within the Agricultural Research Council.

1920s Padeswood Hall Horticultural Institute

This horticultural college was opened by the University of North Wales on a 50 acre site in the 1920s.

- 1945 The venture moved to a 146 acre site at Celyn Farm, becoming the Flintshire Horticultural Institute.
- 1972 Re-named the Welsh College of Horticulture.
- 2009 Merged with Deeside College, with Llysfasi (see 1911).
- 2010 The horticultural campus was named Northop College, still

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 $^{^{\}rm 18}$ Based in Suffolk but listed as Essex in the contemporary report.

within Deeside College.

1920 Animal Diseases Research Association, Edinburgh

This Association, now known as the Moredun Research Institute, based at Penicuik, Midlothian, sponsored research at the veterinary schools in Edinburgh and Glasgow.

1931 Brought within the Agricultural Research Council.

1920 Chadacre Agricultural Institute, Hartest, Bury St Edmunds, Suffolk

Chadacre was founded by Edward Guinness, First Earl of Iveagh and Viscount Elvedon (see 1910) with the objective of providing 'free agricultural education for the sons of farm labourers, small-holders and small farmers together with the sons of those engaged in trades ancillary to agriculture in Suffolk and neighbouring counties'. It occupied a 522 acre farm.

1989 The Institute closed, with the educational objectives continued by the Chadacre Agricultural Trust awarding grants to students of agriculture and allied subjects.

1920 Imperial Bureau of Mycology, Kew

- 1922 The Review of Applied Mycology first published.
- 1930 Became part of the Imperial Agricultural Bureaux (see 1910).

1920 Tuberculin-Tested Milk Producers Association

This association was founded under the first chairmanship of Rupert Guinness (see 1910).

1921 Corn Production Acts (Repeal) Act

The Corn Production Acts of 1917 and 1918 had guaranteed minimum prices for grain under wartime conditions. This became untenable in peacetime and was repealed. In addition to compensation paid to

farmers per acre of wheat and oats, £1 million was assigned to agricultural education and research, key recipients being the National Institute for Agricultural Botany at Cambridge (see 1919 NIAB) and the National Institute for Research in Dairying at Reading (see 1893 University College, Reading at 1912).

1921 Hertfordshire Agricultural Institute, Oaklands, St Albans

Later re-named Hertfordshire College of Agriculture and Horticulture, also known as Oaklands Farm Institute.

1991 Hertfordshire College of Agriculture and Horticulture merged with De Havilland College and St Albans City College to form Oaklands College.

1921 Northamptonshire Institute of Agriculture, Moulton

This institute was later called Northamptonshire Agricultural College and is now Moulton College.

Like many other farm institutes, the college became a training centre for the Women's Land Army in the Second World War.

1921 Scottish Plant Breeding Station, Corstorphine, Edinburgh

- 1926 Sugar beet research was established at Cupar, Fife.
- 1931 The station was brought within the Agricultural Research Council.
- 1953 The oat research stations at Inverness and Argyll were acquired.
- 1954 Operations moved to Pentlandfield, near Edinburgh.
- 1981 The Scottish Crop Research Institute (see 1981) was formed with the amalgamation of the Scottish Plant Breeding Station (see 1921) and the Scottish Horticultural Research Institute (see 1951) in Invergowrie, Dundee.

1921 Somerset Farm Institute, Cannington Court

Later called Cannington College.

1952 Merged into Brymore School (see 1952).

Other parts became the Cannington Centre for Land-Based Studies at Bridgwater College.

1921 Staffordshire Farm Institute, Rodbaston

- 1967 Re-named Staffordshire College of Agriculture.
- 1994 Re-named Rodbaston College.

Currently part of South Staffordshire College, occupying a 180 ha site near Stafford.

1921 Young Farmers' Clubs

The first club was set up in Hemyock, Devon with United Dairies organising competitions and instruction for the children of their milk suppliers, often known as Calf Clubs for the central role raising stock played. Lord Northcliffe (1865-1922) became involved and drew considerably on the example of the American 4-H Clubs (see 1902) for farm children. His involvement can be seen in many early references to 'Daily Mail Young Farmers Clubs'.

A key remit of the clubs was, and remains, the provision of education and personal development.

- 1922 Management was assumed by the Ministry of Agriculture on the death of Lord Northcliffe.
- 1932 The National Federation of Young Farmers' Clubs was formed.
- 1943 The Board of Education became involved with county organisers appointed and proficiency tests introduced.

1922 Duchy College, Cornwall

Duchy College is set on the Stoke Climsland and Rosewarne campuses (the latter was formerly an experimental farm site).

Currently part of Cornwall College.

1922 Pallaskenry Agricultural College, County Limerick

This college continues to offer agriculture and agricultural engineering on its 250 ha holding. It is owned and managed by the Salesian Fathers and is alternatively known as the Salesian Agricultural College, and is within the Agricultural and Food Development Authority (*Teagase*) group of Irish agricultural colleges.

1922 Éire

With the establishment of the Irish Free State in December 1922, we will largely leave the provision of agricultural education in Éire behind. For reference, however, higher education courses in agriculture, horticulture, forestry and fisheries are currently variously offered at:

University College, Dublin

Athlone Institute of Technology (in liaison with Gurteen)

Blanchardstown Institute of Technology

Cork Institute of Technology (in liaison with Clonakilty)

Dublin City University (horticulture)

Dundalk Institute of Technology (in liaison with Ballyhaise)

Galway-Mayo Institute of Technology (in liaison with Mountbellew)

Letterkenny Institute of Technology

Sligo Institute of Technology (fisheries)

Tralee Institute of Technology (in liaison with Clonakilty)

Waterford Institute of Technology (in liaison with Kidalton)

The agricultural colleges are included in the County listing on page 195.

1922 James Aggrey (1875-1927)

Aggrey was a black African Methodist minister who did much to promote racial harmony and the education of black Africans and Americans. He believed, in particular, that agricultural education and work was of great benefit at an individual level, as well as bringing the wider gains of strong agricultural systems. This was somewhat controversial at the time when teaching the black population agricultural (rather than literary) subjects was seen as retrograde at a

time when farm work was linked with poverty and low status. In 1922 he was on the committee which produced the Phelps-Stokes report *Education in Africa* covering such issues.

1922 Ulster Agricultural Organisation Society

Founded with Harold Barbour (1874-1938) as first president. Harrow and Oxford educated Barbour was deeply committed to the UAOS and was also a member of the Northern Ireland Senate from 1921.

1923 Botley Fruit and Horticultural Research Station, Hampshire

This Station closed in 1952.

1923 Institute of Parasitology, London School of Hygiene and Tropical Medicine

The Institute was established in the School which had been set up in 1899 under Sir Patrick Manson (1844-1922). It is now part of the University of London.

1931 Brought under Agricultural Research Council support.

1924 Kirton Experimental Horticulture Station, near Boston, Lincolnshire

Kirton, operated as one with Terrington, Norfolk, comprised 42 ha of Grade 1 land.

- 1990 This was one of several sites and institutions which merged to form Horticulture Research International (HRI, see 1990).
- 2009 The horticultural research site closed and the function was moved to Warwick.

1924 National Institute of Agricultural Engineering, University of Oxford

The Farm Engineering Research and Testing Unit was set up to carry

out testing for the Ministry of Agriculture.

- 1931 Brought Agricultural Research Council support.
- 1932 Re-named the Institute for Research in Agricultural Engineering.
- Moved to temporary quarters at Askham Bryan, Yorkshire. Re-named the National Institute of Agricultural Engineering (NIAE).
- 1947 Moved to Wrest Park, Silsoe, Bedfordshire.
- 1957 The ARC Farm Buildings Unit was established under the direction of W H Cashmore. The Unit was absorbed as a department of the National Institute in 1966.
- 1986 The Institute became the Agriculture and Food Research Council (see 1983) Institute of Engineering Research (AFRC IER).
- 1991 Re-named Silsoe Research Institute.
- 1994 It became one of institutes funded by the BBSRC.
- 2006 Funding and operations ceased.

1924 National Poultry Institute

The Institute was established to fund and organise poultry research with a start of £50,000 from the government and a further £6,000 or so from the National Poultry Council. Research was carried out at:

Harper Adams (poultry husbandry)

Institute for Animal Nutrition, Cambridge (nutrition)

Reaseheath, Cheshire (breeding and egg production)

Wye (table production)

University of Cambridge (genetics)

Central Veterinary Laboratory at Weybridge.

1924 Pirbright Experimental Station, Surrey

The Experimental Station developed from a cow tuberculosis testing centre which had been established in 1913.

- 1931 Brought Agricultural Research Council support.
- 1939 Became a research institute.
- 1963 Became the Animal Virus Research Institute.
- Joined with the Compton Laboratory (see 1937) and the Poultry Research Station, Houghton (see 1947) to become the Institute for Animal Health (see 1987).

1924 Research Association of British Flour Millers, Cereals Research Station, St Albans, Hertfordshire

This was sometimes referred to as the Cereals Research Institute. After various mergers, the research function of what is now the National Association of British and Irish Millers (NABIM) is within Campden BRI (see 1978).

c1925 Kirton Farm Institute, Lincolnshire

- 1980 Merged into the Lincolnshire College of Agriculture and Horticulture (see 1949).
- 1925 Ronald Fisher (1890-1962) published the first of his several seminal works, *Statistical Methods for Research Workers*, whilst at Rothamsted, where he was based from 1919-1933, before moving to University College, London and later, Cambridge.

1925 Pencoed College of Agriculture

A farm school was established at the, now Grade II listed, Tresgroes House, near Bridgend under Glamorgan County Council.

1970s Became Mid-Glamorgan College of Agriculture and Horticulture.

The Pencoed site is now a campus of Bridgend College and still delivers a land-based programme including agriculture, animal care, countryside, equine and horticulture.

1926 Agricultural Economics Society

This society is still promoting its discipline through an annual conference, PhD support, prize essays and the *Journal of Agricultural Economics*.

1926 Pibwrlwyd Farm Institute, Pibwrlwyd, Carmarthenshire

Now part of Coleg Sir Gar and home to a 101 ha college farm (see also 1952 Golden Grove).

1926 University of London Animal Welfare Society (ULAWS)

The aims of this body continue to be to lessen the suffering and fear of animals by education, research and the promotion of appropriate legislation.

- 1938 Re-named the Universities Federation for Animal Welfare (UFAW).
- 1987 Close links were made with the Humane Slaughter Association. Which had its origins in the Council of Justice to Animals, founded in 1911.

1927 Agricultural Research Institute of Northern Ireland

The Institute acquired the experimental farm of Large Park, Hillsborough which is now one of the Environmental Change Network stations (see 1992), comprising around 360 ha - half forest, half grassland.

2006 Merged with the Science Service of the Department of Agricultural and Rural Development (DARDNI) into the Agri-Food and Biosciences Institute (see 2006).

1927 Dartington Hall Laboratory, Totnes, Devon

Founded by Leonard Elmhirst (1893-1974) and his wife Dorothy, née Whitney (1887-1968) in liaison with University College, Exeter. Dorothy was heiress to a large American industrial fortune which helped re-build the derelict Hall and estate* and her husband, having

studied agriculture at Cornell University in the US (after taking history and theology and Trinity College, Cambridge), was keen to support agricultural improvement. The Laboratory carried out soil survey work and animal feed research.

- 1929 First meeting of the International Association of Agricultural Economists.
- 1935 Dartington Hall Trust established to run the estate.
- 1946 Closed, with the soil function transferring to Rothamsted.
- * The estate was also home a rural community supporting the arts, international students and visitors and rural reconstruction, leaning heavily on the ideas of the Indian writer Rabindranath Tagore with whom Leonard worked in the setting up of the Institute of Rural Reconstruction in West Bangal. Dartington Hall School, a coeducational progressive boarding school, was run at the premises from 1926-1987 (former pupils including Michael Young (Lord Young), Lucien and Clement Freud, Matthew Huxley (son of Aldous) and Oliver Postgate (best known as the creator of Pogles' Wood, Niggin the Nog, Ivor the Engine, The Clangers and Bagpuss).

1927 Parkfield - Howard Davis Farm

A farm of some 40 vergées (a Jersey vergée being 0.44 of an acre) in the village of Trinity was gifted to the people of Jersey (Channel Islands) by Thomas Davis for the purposes of an experimental station and instruction in agricultural science.

2007 The tie to agricultural experimentation and instruction was partially lifted (Howard Davis Farm (Partial Abrogation of Covenant) (Jersey) Law 2007) but the farm continues to house the States of Jersey Agricultural Department and the Jersey Milk Marketing Board.

1928 Ashridge (Bonar Law Memorial) College, Hertfordshire

Purchased by Urban Broughton to establish an adult education college with a Conservative ethos, aimed at developing Conservative Party philosophy to create 'Conservative Fabians' if that is not an oxymoron. Its entry is due to the small but significant number of lectures and conferences in agriculture and agricultural policy which took place.

c1939 Commandeered for war-time usage as a hospital.

The institution still operates under the Bonar Law Memorial Trust and is now a Business School.

1928 Report of the Committee on the Practical Education of Women for Rural Life. Chair: Lady Denman.

A report of a joint committee of the Ministry of Agriculture and Fisheries and the Board of Education, chaired by Lady Denman in her capacity as President of the National Federation of Women's Institutes (see 1915), then answering to the Minister of Agriculture.

1928 Hugh Hammond Bennett (1881-1960)

Bennett, from North Carolina, was a soil scientist whose most influential work was *Soil Erosion: A National Menace* (pub. 1928). He is known as the father of soil conservation and established the Soil Conservation Society of America.

1928 Ditton Laboratory

This was set up near to the East Malling Research Station (see 1913) by the Empire Marketing Board as a part of Cambridge University's Low Temperature Research Station (see 1896 University of Cambridge at 1922). It dealt with fruit and vegetables, particularly the international shipping thereof, with further fruit and vegetable work carried out at the Covent Garden Laboratory.

1969 The Ditton Laboratory was incorporated into East Malling as the fruit storage section.

1928 Hannah Dairy Institute, Kirkhill, Ayr

Kirkhill Farm was donated by John Hannah (the bulk of his Auchincruive estate going to the West of Scotland Agricultural College, see 1887).

- 1928 Journal of Dairy Research founded jointly between Hannah and NIRD, Reading (see 1893 at 1912), it is now published from the Hannah Research Park, Ayr.
- 1930 Dr Norman Wright was appointed as the first permanent director. He became Chief Scientific Adviser to MAF in 1950.
- 1931 The institute was brought under Agricultural Research Council support.
- 1950 Dr James A B Smith succeeded Dr Wright as Director.
- 1951 New laboratories were added.
- 1970 Professor John A F Rook succeeded Dr Smith as Director.
- 1981 Dr Malcolm Peeker succeeded Professor Rook as Director.
- 1983 Re-named the Hannah Research Institute.
- 2006 The Institute closed, monies from the dispersal of assets being directed to the Hannah Research Foundation which funds 'scholarships which are intended to advance and promote scientific research into animal and human nutrition in health and disease.'

1928 ICI Agricultural Research Station, Jealott's Hill, Bracknell, Berkshire

1936 The Hawthorndale Laboratories were opened.

The have been run by Syngenta since 1999.

1928 Lord Wandsworth College, Long Sutton, Hampshire

This independent boarding school started as Lord Wandsworth Agricultural School with a bequest from Sydney James Stern, 1st Baron Wandsworth (1845-1912) as a school for farm boys who had lost one or both parents, with a few academic lessons tagged onto the practical work. It was listed as a Farm Institute on the formation of the ARC in 1931. In 1939 no less a person than Sir Daniel Hall (see 1903) became headmaster, although he was nearing the end of his career and life,

dying in office in 1942.

The balance of farming against school work slowly shifted until by the 1950s it was a fairly typical independent school, with a considerable number of assisted places, albeit one surrounded by farmland which continues in the 21st century to provide a small profit to the school's accounts and a rural edge to extra-curricular activities, such as beekeeping. When the author's husband attended in the 1970s there was still an active Young Farmers' Club, the farm provided produce for the school kitchens, sixth formers could work on the farm after classes and a significant proportion of pupils still came from farming / equestrian backgrounds.

1928 Alfred Charles True (1853-1929)

True worked for the US Department of Agriculture for several decades from 1889. An invaluable resource for any student of the development of agricultural education and research in the USA, with some reference to Europe, are his three works completed in semi-retirement: A History of Agricultural Extension Work in the United States, 1785-1923 (pub. 1928), A History of Agricultural Education in the United States, 1785-1925 (pub. 1929) and A History of Agricultural Experimentation and Research in the United States (pub. posthumously in1937). For US information, see also Charles Browne, 1944.

1929 Torry Research Station, Aberdeen

Torry worked with the Low Temperature Research Station, Cambridge (see 1896 University of Cambridge at 1922) and dealt with the preservation of fish.

- 1952 The Humber Laboratory was established in Hull under the same management.
- 1965 Responsibility moved from the Department of Scientific and Industrial Research (see c1914) to the Ministry of Technology.
- 1990 Responsibility moved to MAFF and the Food Science Laboratory (see 1914).

2009 The Marine Laboratory of Marine Scotland was formed from a merger of the Fisheries Research Services and the Scottish Fisheries Protection Agency. The Marine Laboratory is part of the Aberdeen Research Consortium (see 1993).

1929 Young Farmers' Clubs of Ulster

Founded by William Staveley Armour (1993-1940), an Oxford educated (President of the Oxford Union) barrister who had been a colonial inspector of schools in India and was strongly influenced by the Danish Folk High School movement. At the time of launching the Young Farmers' movement in NI, Armour was editor of *The Northern Whig*, one of the major Belfast newspapers.

1946 *Ulster Young Farmer* magazine lunched under the first editorship of George Loxton and continued until 1971.

2004 The magazine was revived under the title Rural Despatch.

1930 Agricultural Research Institutes and Units

By way of summary, here are the Development Commission (see 1909) funded institutes in 1930. The units marked * were transferred to Rothamsted in 1934 to form the Department of Plant Pathology (see 1843 at 1934). The London helminthology work transferred to Rothamsted at a later date.

Aberdeen (Rowett) animal nutrition

Aberystwyth grasses and fodder crops

Ayr (Hannah Inst.) dairy

Cambridge animal nutrition
Cambridge plant breeding
Cheshunt glasshouse crops
Corstophine plant breeding

London agricultural helminthology

Long Ashton cider and fruit

Kew * agricultural mycology

Macaulay soil

Manchester * agricultural entomology

Oxford agricultural economics
Oxford agricultural engineering
Rothamsted soil and plant nutrition

Shinfield (Reading) dairy

1930 Macaulay Institute for Soil Research, Aberdeen

This organisation was founded with funds from Canadian actuary Thomas Bassett Macaulay (1860-1942), who also provided the Macaulay Experimental Peat Farm on the Isle of Lewis, his ancestral home.

- 1931 Brought under Agricultural Research Council support.
- 1987 The Institute merged with the Hill Farming Research Organisation (see 1954) and became the Macaulay Land Use Research Institute.
- 2011 Merged with the Scottish Crop Research Centre to form the James Hutton Institute (se 2011). Now part of the Aberdeen Research Consortium (see 1993).

1930 Soils Correlation Committee

A joint committee of the Ministry of Agriculture and Fisheries and the Board of Agriculture for Scotland formed to ensure consistency in methods and naming of soil series and of classification.

1930 Strawberry Disease Investigation Unit, Auchincruive, Ayrshire

Absorbed into the newly formed Scottish Horticultural Research Institute (see 1951).

1931 Agricultural Research Council (ARC)

The ARC was formed to co-ordinate, supervise and manage the funding for agricultural research under the first chairmanship of Lord Richard Cavendish (1871-1946) of Holker Hall, Cumbria. The first secretary was Sir William Dampier (see 1896, University of Cambridge at 1919). Six of the original ten Council members were appointed in

consultation with the Royal Society to ensure qualification in the 'basic sciences underlying agriculture'.

Six standing committees were established: Animal Diseases, Animal Nutrition and Breeding, Dairying and Animal Products, Plants, Soils, and Agricultural Economics.

- 1937 The ARC acquired the Compton Manor estate, Berkshire with prime herds of Ayrshire cattle and Large White pigs.
- The idea of ARC Units (as opposed to the larger Institutes) was established.
- 1949 The scope was widened and the name changed to the Council for Agricultural Research and Nature Conservation.
- 1959 Responsibility for the Pest Infestation Laboratory (see 1940), the Low Temperature Research Station (see 1896 University of Cambridge at 1922) and the Ditton Laboratory (see 1928) was taken over from the Department of Scientific and Industrial Research (see c1914).
- 1983 Name changed to Agricultural and Food Research Council (AFRC, see 1983).
- The Biotechnology and Biological Sciences Research Council (BBSRC) was formed from the AFRC and the Science and Engineering Research Council (SERC).

See Agricultural Research 1931-1981: a history of the Agricultural Research Council and a review of developments in agricultural science during the last fifty years, ed. G W Cook (1981).

1932 British Boys for British Farms

The YMCA started a programme of agricultural training for boys and young men, originally with a view to them emigrating but later for British Farms. There had been an earlier, related scheme called British Boys for Canadian Farms. The boys entered the Farm Training Scheme at 14 to 16 years of age and stayed in the YMCA centres for eight to ten weeks, working on local farms, before being placed on other farms where they were followed up by a YMCA Field Officer for

a year, sometimes more - this 'after sales service' pastoral support was a key feature in the success of the scheme. More than 20,000 boys went through the scheme.

1932-1934	Grovehill Road, Beverley, Yorkshire
1932-1950	Ham Green, Pill, near Bristol, Somerset
1935	Dymchurch, Kent
1935-1939	Ivy House, Boston Spa, Yorkshire
1936-1946	Flint Hall, Henley-on-Thames
1939-1968	Park Hill, Egginton, Derby
1942-1947	Burscough, Ormskirk, Lancashire
1942-1948	Mammerton Farms, Longford, Derby
1944-1948	Clifford Lodge, Clifford Chambers, Warwickshire
1947-1955	Mappleton Camp, Hornsey, Yorkshire
1948-1949	Laindon, Basildon, Essex
1948-1950	The Chestnuts, Hinstock Hall Estate, Shropshire
1948-1966	Wilderwick House, Dormansland, East Grinstead
1950-1966	North Cadbury Court, North Cadbury, Somerset

1968 The organisation folded with the closure of Park Hill.

With thanks to Stephen Milner, a retired YMCA staff member, for much of the above information.

See Barbara Vessey's *British Boys for British Farms*: the story of the YMCA's Farm Training Scheme, published in 1995. The late Mrs Vessey was a former matron at a BBBF Centre.

1932 Arthur George Street (1892-1966)

A G Street was the son of a Wiltshire tenant farmer on the Earl of Pembroke's estate and was himself a tenant of the Earl until his death.

Along with farming, initially to boost the finances of an all but failing business, Street wrote prolifically and published one of his most famous works, Farmer's Glory, in 1932. He wrote both fiction and fact, all on agricultural and country matters. As a columnist for Farmers' Weekly for over 30 years (his final piece in May 1966 being sent from the hospital just before he died), and a regular radio broadcaster, he did much to educate the public about farming matters, as well as being a voice, often critical, for the farming industry.

1932 Waterperry Horticultural School, Oxfordshire

A residential horticultural school for women, under Beatrix Havergal (1901-1980), was opened at Waterperry House, which had been acquired from the Henley family by Magdalen College, Oxford in 1925.

1971 The school closed on Miss Havergal's retirement. The premises remain as a visitor garden and nursery.

1934 Farmers' Weekly

A key voice and source of information for working farmers and commentators alike, first published by Lords Beaverbrook (Max Aitken 1879-1964) and Rothemere (Harold Harmsworth, 1868-1940) under the editorship of Canadian poet Frank James Prewett (1893-1962), who was later editor of *The Countryman*. It went on sale for 2d with a cover extract from *A Song of Harvest* by John Greenleaf Whittier (1807-1892):

Give fools their gold, and knaves their power; Let fortune's bubbles rise and fall; Who sows a field, or trains a flower, Or plants a tree, is more than all.

- 1937 Proprietorship transferred to the Hulton Press under Sir Edward Hulton (1906-1988).
- 2005 Jane Kay became the first woman editor.

1934 Land Settlement Association

Supported by government funding, along with help from the Plunkett Foundation (see 1919) and the Carnegie Trust, for the settlement of the unemployed from depressed industrial areas. Settlers were provided with a new cottage, stocked animal housing, often a greenhouse and up to 10 acres of land, thus most were involved with pigs, poultry and salad crops. They underwent a short training programme and over 1,000 smallholdings were established before WWII.

The businesses were expected to run co-operatively, hence the input from the Plunkett Foundation.

- 1945 The scheme was merged with the county council smallholding scheme.
- 1983 The scheme folded with residual assets constituted as the LSA Charitable Trust for the benefit of former tenants and to promote horticultural education.

1936 Oxford Farming Conference

This annual event continues as an important debating forum for all strata of the farming world, from ministers and senior officials to working farmers and students. It has the remit to educate and encourage debate and sponsors an annual research project. In addition to the main conference it holds debates at the Cereals event (see 1979) and runs the Practice with Science Awards with the Royal Agricultural Society of England.

1937 Compton Laboratory, Berkshire

Set up by the Agricultural Research Council.

- 1942 Gained research institute status.
- 1963 Became the Institute for Research on Animal Diseases.
- 1987 Merged with Pirbright (see 1924) and the Poultry Research Station, Houghton (see 1947) to become the Institute for Animal Health (see 1987).
- 2013 The Compton site was scheduled for closure.

1937 Plant Protection Limited, Fernhurst, Sussex

The company was owned 50:50 between ICI and Cooper McDougall & Robertson Limited.

- 1945 ICI Plant Protection Ltd bought the Fernhurst estate and Plant Protection Limited as a technical research centre and for demonstrating commercial horticulture. The Fernhurst Station became a national centre of fruit growing expertise.
- 1959 The estate included the Grade II listed Verdley Place which was the ICI Agrochemicals HQ from 1959 to 1975.

- 1994 ICI de-merged its three core divisions : agrochemicals, pharmaceuticals and specialities. ICI Agrochemicals became Zeneca Agrochemicals.
- 1999 Zeneca Agrochemicals merged with the Swedish Astra AB agrochemical company to form AstraZeneca.
- 2000 Novartis (the product of the 1996 merger between Sandoz, founded 1886, and CIBA, founded 1856 and merging in 1970 with Geigy, founded in 1758 all in Switzerland) merged with AstraZeneca to form Syngenta.
- The Fernhurst site and Verdley Place were vacated.

1938 Durham College of Agriculture and Horticulture, Houghall

This institution has various been known as Houghall College and the Durham School of Agriculture, Houghall and is now part of East Durham College. The farm site was acquired from Durham University by the County Council in 1920.

- 1999 Incorporated into East Durham and Houghall Community College.
- 2008 Now East Durham College, Houghall Campus.

1938 Institution of British Agricultural Engineering

Established under the first presidency of Lt Col. Philip Johnson, this is the professional body for engineers in agriculture and allied industries such as forestry.

1949 The name was changed to the current Institution of Agricultural Engineering.

1939 Lasswade Poultry Laboratory, Midlothian

Set up under MAFF.

1990 Brought into the Veterinary Laboratories Agency (see 1917).

1939 War Agricultural Executive Committee

This Committee took over the educational role of the County Councils.

1940s Bee Research Unit, Rothamsted and Trawsgoed

- 1950s Operated under the National Agricultural Advisory Service.
- Both sites amalgamated into the ADAS (see 1946) National Bee Unit at the Luddington Experimental Horticulture Station, just outside Stratford-upon-Avon.
- 1989 The Luddington site was closed.
- 1991 Management was transferred to the Central Science Laboratory, Sand Hutton, York.
- 2009 Now under the Food and Environment Research Agency.

1940s Cattle Breeding and Production Division, Milk Marketing Board

Originally based at Giggs Hill Green, Thames Ditton, Surrey.

- 1942 The first AI stations were brought into operation.
- 1943 National Milk Records was established, which took over the work of the regional Milk Recording Societies which had been set up in the early twentieth century.
- 1990 Moved to Crewe, Cheshire.
- Taken over by Genus plc on the cessation of the MMB, now operating as Genus ABS.

c1940 Brinsbury Agricultural College, West Sussex

The college was initially a training centre for the Women's Land Army in the war and is set in a 570 acre site near Pulborough.

- 1952 The premises were acquired by West Sussex County Council and a farm institute was established.
- 1966 It was re-named as the West Sussex School of Agriculture.

- 1998 The name was changed to Brinsbury College.
- 2002 Absorbed into Chichester College of FE.

1940 Infestation Control Laboratory, Tolworth, London

Set up by the Department of Scientific and Industrial Research (see c1914).

- 1958 Worplesdon, Surrey field station added.
- 1971 Amalgamated with the Pest Infestation Control Laboratory, Slough and re-named the Pest Infestation Control Laboratory.

1940 Pest Infestation Laboratory, Slough

Set up by the Department for Scientific and Industrial Research (see c1914).

- 1959 Responsibility passed to the ARC.
- 1970 Responsibility passed to MAFF.
- 1971 Amalgamated with the Infestation Control Laboratory (Tolworth and Worplesdon) and re-named the Pest Infestation Control Laboratory. Responsibility passed to ADAS (see 1946).
- 1988 Merged with the Harpenden Laboratory to become part of the Central Science Laboratory. Currently under the Food and Environment Research Agency.

1941 Agricultural Improvement Council

Created by the Ministry of Agriculture and Fisheries, under Robert Spear Hudson (1886-1957),to link agricultural research and practice. Its major role was to oversee the National Agricultural Advisory Service (NAAS, est. 1946) and its network of Experimental Husbandry Farms and Experimental Horticulture Stations. It also provided some advisory oversight for agricultural research (which was mainly managed by the Agricultural Research Council).

1962 Wound up and replaced by the Agricultural Advisory Council and the Horticultural Advisory Council (see 1962).

1942 ARC Unit of Insect Physiology, London School of Hygiene and Tropical Medicine

The Unit was established in support of the work of Dr Vincent Wigglesworth (1899-1994), a Reader in Entomology.

- 1944 The Unit moved to Cambridge, with Dr Wigglesworth taking a chair in the Department of Zoology.
- 1967 The Unit was disbanded.
- 1943 Report of the Committee of the Privy Council for the Organisation and Development of Agricultural Research in Great Britain. Cmnd 6421.

1943 Frank Parkinson Agricultural Trust

The trust was established by Frank Parkinson (1887-1946), an electrical engineer from Leeds. He also provided extensively for Leeds University and for the elderly of Guiseley. The remit of the Agricultural Trust is wide ranging, within the general premise of the improvement of British agriculture, and recipients might be individuals wanting study or support bursaries, applicants for research monies, through to institutions wanting to develop facilities.

1943 Report on Post-War Agricultural Education. Chairman: Sir Arthur Luxmoore (1876-1944). Cmnd 6433.

This report cemented the three tier system of agricultural education: (i) universities, (ii) colleges (such as the Royal Agricultural College and Harper Adams), and (iii) farm institutes. The committee was not without controversy as its remit overlapped with (although was much wider than) the Loveday Committee (see 1946). Luxmoore was charged with looking at land-based education in the widest possible sense, to include education and information dissemination to landowners, bailiffs, farm workers, land agents, agricultural engineers and teachers, as well as the work of farm institutes, colleges and universities.

1943 Raspberry Disease Investigation Unit, Dundee

Absorbed into the newly formed Scottish Horticultural Research Institute (see 1951).

1943 Yorkshire Agricultural Adventurers

This society (original the West Riding of Yorkshire Agricultural Adventurers) supports knowledge transfer and networking and sponsors a bursary of £1,000 per year for a student from the Yorkshire colleges of Askham Bryan, Bishop Burton or a member of Young Farmers.

1944 Bachad Farm Institute, Thaxted, Essex

This Institute was set up by a Zionist movement which started in Germany before the war, called Brit Chalutzim Datiim. The organisation currently operates under the name Bnei Akiva. The farm institute trained up to 50 students at a time in agriculture (along with a Jewish syllabus of Bible studies and Hebrew) in preparation for work on Kibbutzim in Israel.

1962 Closed.

1944 Charles A Browne (1870-1947)

Any study of British and Irish agricultural education and research should extend to Europe and the USA, given the influence from overseas. Those interested in the history of agricultural science should certainly review *A Source Book of Agricultural Chemistry* published in 1944 in the United States. The author, Charles Browne, was an outstanding agricultural chemist working for the US Department of Agriculture for over 40 years. He had gained his doctorate at Göttingen in Germany, following in the footsteps of Augustus Voelcker (see 1843). For USA see also Alfred True, 1928.

1944 Education Act

The 'Butler Act' was passed following the report of the Butler Committee on Educational Reconstruction. It separated the functions of agricultural advice and education leading to the expansion of 'county colleges' and the development of the National Agricultural Advisory Service (NAAS).

1944 Processors and Growers Research Organisation, Thornhaugh, Cambridgeshire

Established to promote applied research into legumes and other field vegetables.

1945 National Animal Breeding and Genetics Research Organisation (NABGRO)

- Moved to Edinburgh becoming ABGRO and later ABRO, under the directorship of CH Waddington.
- 1951 A separate Genetics Laboratory was formed within ABRO
- 1957 The Genetics Laboratory became the ARC Unit of Animal Genetics.
- ABRO merges with part of the Poultry Research Centre to become the Edinburgh Research Station (see 1986).
- 1945 Report of the Committee on Agricultural Education in Scotland. Cmnd 6704.
- 1945 Report on The provision in secondary schools of courses preparatory to agricultural employment. Report by the Joint Advisory Committee on Agricultural Education to be Provided by Local Education Authorities (Loveday).

1945 Surrey Farm Institute, Merrist Wood, Worplesdon

- 1967 Re-named Merrist Wood Agricultural College.
- 2003 Became part of Guildford College.

1945 University College, Cardiff

The ARC Unit of Soil Metabolism moved from Rothamsted. It was

dis-banded in 1947.

1946 Shardlow Hall, Derbyshire - NAAS / ADAS Laboratory

1986 Closed.

1946 Brooksby Hall Farm Institute, Leicestershire

The property was purchased from Earl Beatty, initially as a training centre for ex-servicemen under the Leicestershire Agricultural Executive Committee. The estate included an important garden dating to the Victorian era which is still utilised in today's horticultural activities.

- 1950 The farm institute was established.
- 1967 It was re-named Brooksby Hall Agricultural College.

Now part of Brooksby Melton College.

1946 Butterwick Research Laboratories, Welwyn, Hertfordshire

ICI took the tenancy of the Frythe estate.

- 1963 The site was sold to Unilever.
- 1977 The site was sold to Smith, Kline and French, now Glaxo Smith Kline.

1946 National Agricultural Advisory Service (NAAS)

The farm advisory service was established under government Ministry, taking direct advice away from academic institutions.

- 1971 The organisation was re-badged as the Agricultural Development and Advisory Service (ADAS).
- ADAS was privatised and continues as an advisory service to government and the industry.
- 2012 Farm Advisory Service launched.

1946 Report on Higher Agricultural Education in England and Wales. Chairman: Dr Thomas Loveday. Cmnd 6728.

This report clearly set the colleges of Harper Adams, the Royal Agricultural College and Seale Hayne as the providers of two year diploma courses with no overlap with the one year courses offered by the farm institutes or the degrees offered by the universities.

1946 Scottish Agricultural Machinery Testing Station, Howden, West Lothian

The Scottish testing station was established as part of the National Institute of Agricultural Engineering (see 1924). It closed in 1961.

1946 Shuttleworth Agricultural College

The college was founded as part of the Richard Ormonde Shuttleworth Remembrance Trust founded by Richard Shuttleworth's mother after his death in the RAF in 1940. It was based at Old Warden Park, near Biggleswade, Bedfordshire.

- 1988 Engineering activities were absorbed into the Cranfield Rural Institute.
- 1996 Shuttleworth activities transferred to Silsoe College.
- 1997 The agricultural college was re-established in partnership with Writtle College (see 1893).
- 2009 The college ceased its partnership with Writtle to become part of Bedford College.

1946 Trawsgoed Experimental Husbandry Farm, Aberystwyth

1995 The farm closed as a MAFF station.

Currently one of the Aberystwyth University IBERS (see 1872 at 2008) Experimental Research Farms, of around 385 ha.

1946 Worshipful Company of Farmers

First formed as the Worshipful Company of Agriculturalists, one of the

aims being to 'stimulate the development of agricultural education'.

- 1952 The company was granted Livery approval.
- 1955 Gained a Royal Charter as the Worshipful Company of Farmers.

1947 Association of Agricultural Education Staffs

The name of this teachers' trade union was self-explanatory.

- 1990 Amalgamated with the National Association of Teachers in Further and Higher Education.
- 2006 Merged with the Association of University Teachers to become the University and College Union.

1947 Balmacara House Agricultural School, Ross-shire

An agricultural school for boys, in Lochalsh, offering City and Guilds qualifications.

1973 Closed.

1947 Bicton Farm Institute, East Budleigh, Devonshire

Also known as the Devon School of Agriculture, the college occupied the Bicton Estate leased from Sir Charles and Lady Clinton.

- 1967 Re-named Bicton Agricultural College.
- 2002 Became part of Bicton College.

1947 Brewing Industry Research Foundation, Chipping Campden, Gloucestershire

1978 Merged with the Campden and Chorleywood Food Research Association (CCFRA) to form Campden BRI.

1947 British Soil Science Society

This society was formed to advance the study of soil, to be open to membership from all those with an interest in the study and uses of soil and to issue an annual publication. It now issues two publications: the European Journal of Soil Science and Soil Use and Management.

2010 Merged with the Institute of Professional Soil Scientists.

1947 Nuffield Farming Scholarships Trust

In 1943 the motor manufacturer William Morris, Viscount Nuffield (1877-1963) established the Nuffield Foundation to support research and development which extended to agriculture in 1947.

- 1968 Became the UK Farming Scholarships Trust.
- 1978 Became the Nuffield Farming Scholarships Trust.
- 2003 Nuffield Farming was incorporated as an independent body, apart from the Nuffield Foundation.

1947 Poultry Research Centre, Edinburgh

The Centre was formed out of the poultry research unit of the Institute of Animal Genetics under the first directorship of Alan Greenwood (1897-1981).

1947 Poultry Research Station, Houghton, Cambridgeshire

Founded by the Animal Health Trust, a charitable institution but soon part funded by the ARC, who took complete control in 1970.

- 1987 Houghton joined with the Compton Laboratory (see 1937) and Pirbright (see 1924) to become the Institute for Animal Health (see 1987).
- 1992 Houghton closed.
- 1947 Interim Report on Agricultural and Horticultural Institutes by the Joint Advisory Committee (Loveday).

1948 Boxworth Experimental Husbandry Farm, Cambridgeshire

One of the Ministry of Agriculture experimental farms, leased to ADAS

on its privatisation in 1997. 347 ha, comprising 12 ha permanent pasture, 9 ha woodland with the rest Grade 2 arable.

1948 Bridget's Experimental Husbandry Farm, Martyr Worthy, Winchester

One of the Ministry of Agriculture farms - 422 ha, leased to ADAS on its privatisation in 1997. Largely arable with a small area of woodland.

2009 Closed.

1948 Derbyshire Farm Institute

Broomfield Hall and grounds were acquired for the establishment of a farm institute from Charles Schwind. The name was later changed to Broomfield Agricultural College.

2002 It merged with Mackworth Tertiary College and Wilmorton Tertiary College to form Derby College with the Broomfield campus retained.

1948 Gloucestershire Farm Institute, Hartpury, Gloucestershire

Hartpury House and Home Farm with around 130ha was acquired by Gloucestershire County Council on the death of the estate's heiress, Frances Gordon-Canning, in 1947. It is now known as Hartpury College.

1965 The 42 ha Langton's Farm was acquired.

1948 High Mowthorpe Experimental Husbandry Farm, Yorkshire

One of the Ministry of Agriculture experimental farms, High Mowthorpe was leased to ADAS Consulting Ltd on its privatisation in 1997. 437 ha, largely Grade 3 arable and grazing land.

1948 Kesteven Farm Institute, Caythorpe Court, Lincolnshire

Caythorpe Court and estate was purchased by Lincolnshire County Council from the Yerburgh family.

- c1965 The farm institute was re-named Kesteven Agricultural College.
- 1980 Amalgamated with Lindsey College of Agriculture (Riseholme, see 1949), the Kirton (Holland, see c1925) site and Holbeach Agricultural Centre to form the Lincolnshire College of Agriculture and Horticulture.
- 1994 Absorbed into De Montfort University as its School of Agriculture.
- 2001 Lincolnshire School of Agriculture moved from De Montfort to the University of Lincoln.
- The Caythorpe campus closed with activities relocated to the Riseholme College campus (see 1949).

1948 Lawmuir Agricultural School, East Kilbride

A boys' secondary school.

c1970 Closed as an agricultural institution and became an approved school.

1948 Warwickshire Institute of Agriculture, Moreton Morrell

The college occupies the estate including the Grade II listed Moreton Hall. It is currently the Moreton Morrell Centre of Warwickshire College.

1948 Yorkshire Institute of Agriculture, York

Now known as Askham Bryan College, holding 414 ha of farmland: Westfield (dairy and beef - where the National Beef Training Centre is based), East Barlow (equine) and Headley Hall (arable). Headley Hall was formerly the University of Leeds' farm, and is still owned by the University.

- 1967 Re-named Askham Bryan College of Agriculture and Horticulture.
- 2011 Newton Rigg, Cumbria (see 1896 Cumberland and Westmorland Farm School) was brought under mutual

1949 Berkshire Institute of Agriculture, near Maidenhead

Hall Place, Hall Place Farm and 484 acres was acquired by Berkshire County Council from the estate of the Clayton East family. A mixed farm and woodland is operated. The Grasslands Research Institute (see 1949) shared the premises, operations ceasing at the Berkshire site in 1992.

1968 The college was re-named Berkshire College of Agriculture and is now known simply as BCA.

1949 Brackenhurst College, Nottinghamshire

The Hall and estate was acquired by Nottinghamshire County Council for the establishment of Nottinghamshire Farm Institute on the death of William Norton Hicking, a lace industry businessman who had built up a national reputation in dairy cattle.

1999 Brackenhurst became the land-based department of Nottingham Trent University.

1949 Dorset Farm Institute, Kingston Maurward, Dorset

The college was established on property sold to Dorset County Council in 1947 by Lady Hanbury, who then retired to the Italian Riviera. Kingston Maurward House is a Grade I listed building. The name was later the named changed to the Dorset College of Agriculture and is now Kingston Maurward College.

1949 Gleadthorpe Poultry Experimental Farm, Mede Vale, Nottinghamshire

One of the Ministry of Agriculture experimental husbandry farms, leased to ADAS Consulting Ltd on its privatisation in 1997. It comprises 200 ha, most of which is Grade 3 arable with a small area of woodland.

It is now managed by ADAS as the Gleadthorpe Poultry Research Centre, and is the HQ of ADAS Environment.

1949 Great House Experimental Husbandry Farm, Helmshore, Rossendale, Lancashire

A 175 ha Ministry of Agriculture experimental husbandry farm, it closed in 1981.

1949 Grasslands Research Institute, Hurley

Briefly based at Drayton, Warwickshire, the Institute soon moved to the Hurley site which was acquired by MAF; the Berkshire Farm Institute (now the Berkshire College of Agriculture, see 1949) was on the same estate.

- 1981 A further site was acquired in North Wyke, Devon.
- Hurley staff relocated to North Wyke (see 1955) on the closure of Hurley.

1949 National Vegetable Research Station, Wellesbourne, Warwickshire

The Station was established, was a sub-station at Paglesham, under the first directorship of Dr James Philp. It grew out of the Cambridge Horticultural Research Station which had been formed in 1923 (see 1896 University of Cambridge at 1923).

The National Vegetable Research Station merged with the Glasshouse Crops Research Institute, Littlehampton (see 1953), the East Malling Research Station in Kent (see 1913) and the Hop Department of Wye College (see 1896) to create the Institute of Horticultural Research (IHR, see 1985).

1949 Norfolk School of Agriculture / College of Agriculture and Horticulture, Easton

Also known as Norfolk Farm Institute, later Norfolk College of Agriculture and Horticulture.

1974 Easton College was formed by the merger of the Norfolk College of Agriculture and Norfolk College of Horticulture.

2012 Merged with Otley College, Suffolk to form Easton and Otley College.

The Easton College farm comprises 245 ha including cattle, sheep, pigs, poultry and arable. They also run a small Highland cattle herd.

1949 Rosemaund Experimental Husbandry Farm, Herefordshire

One of the MAF farms, latterly comprising 176 ha including 14 ha hops, 4 ha cider orchard, 4.5 ha woodland and 11 ha permanent pasture with the rest being Grade 2 and 3 arable and pasture. It employed the traditional migrant workers in the hop operations, which was one of the primary areas of work in the early days. Records indicate that in 1960 over 1,000 men women and children came in from Birmingham and South Wales for the hop season.

- 1997 Leased to ADAS Consulting Ltd on privatisation.
- The land and buildings were largely sold off but some field trials plots were retained by ADAS.

1949 Riseholme Farm Institute, Riseholme, near Lincoln

The Hall was purchased by Lincolnshire Education Committee from the Wilson Family, who had acquired the property in 1870.

- 1966 Re-named Lindsey College of Agriculture.
- 1980 Merged with Kesteven Agricultural College (see 1948) and Holbeach Agricultural Centre to form the Lincolnshire College of Agriculture and Horticulture.
- 1994 Became part of De Montfort University, Leicester.
- 2001 Transferred to the University of Lincoln with the development of the Rural Science Centre at the Riseholme site.
- 2002 The Equine Unit opened with a successful Cleveland Bay breeding programme.
- 2003 Caythorpe Campus closed.

2012 Now part of Bishop Burton College (see 1954).

1949 Shropshire Farm Institute, Walford

Established jointly through Shropshire, Herefordshire and Worcestershire LEAs.

- 1979 Re-named Walford College of Agriculture.
- 1982 Radbrook College (see c1895) horticultural operations transferred in.
- 2001 Merged with North Shropshire College to form Walford and North Shropshire College.

1950 The Archers

The radio programme, which has run for over 60 years, was started in order to disseminate information to farmers and smallholders to help increase productivity after the War, and later to introduce the general public to an understanding of farming and the countryside. There was initial collaboration with the Ministry of Agriculture.

It was originally planned around three farmers: Dan Archer, farming efficiently with little cash, Walter Gabriel, farming inefficiently with little cash, and George Fairbrother, a businessman farming at a loss for tax purposes (no longer permissible).

1950 National Association of Principal Agricultural Education Officers (NAPAEO)

This body represented the land-based colleges, often at policy level, its role being replaced by Landex (see 2006).

1950 Wiltshire Farm Institute / Lackham School of Agriculture

- 1945 Lackham House and 600 acres was purchased from Major Herbert Paton Holt for use as a farm institute, but loaned for the training of ex-servicemen.
- 1950 Wiltshire Farm Institute was founded under the county council.

- c1966 Name changed to Lackham College of Agriculture and, in 1993, Lackham College.
- 2000 Lackham, Trowbridge, and Chippenham Colleges merged to form Wiltshire College.

c1951 Barony College, Dumfries

The college started as a farm institute on the Barony Estate.

- 1974 It became a college of further education.
- 2012 Merged into the Scottish Rural University College (see 2012).

1951 Huntingdon Life Sciences, Alconbury, Cambridgeshire

One of the largest Contract Research Organisations (a research organisation with specific regulatory status) now with two UK sites, Huntingdon and Eye, Suffolk (along with four sites in the USA).

1951 Kirkley Hall Farm Institute, near Ponteland, Northumberland

The Hall, farm and 260 acres was acquired from Mrs Williamson-Noble in 1948.

- 1958 Broadlaw Farm was purchased and the college activities were extended to bee-keeping.
- 1968 The institute became the Northumberland College of Agriculture.
- 1978 The tenancy of a hill farm at Carlcroft was taken.
- 1989 It became Kirkley Hall College.
- 1999 The college became part of Northumberland College.
- 2000 The Uplands Learning Resource Centre was opened.

1951 National Diploma in Agricultural Engineering established.

1951 Scottish Horticultural Research Institute, Invergowrie, Dundee

The Institute was formed, in part, out of the Strawberry Disease Investigation Unit (see 1930) and the Raspberry Disease Investigation Unit (see 1943) under the directorship of Dr Thomas Swarbrick (1900-1965).

- The Scottish Crop Research Institute was created by the amalgamation of the Scottish Plant Breeding Station, Edinburgh (see 1921) and the Scottish Horticultural Research Institute, Invergowrie (see 1951).
- It merged with the Macaulay Land Use Research Institute to form the James Hutton Institute (see 2011).

1952 ARC Plant Breeding Institute

The Plant Breeding Institute became independent of the University of Cambridge (see 1896 University of Cambridge at 1912), managed by the ARC.

- 1955 Moved from the Cambridge University Farm to Trumpington.
- 1987 The commercial activities were sold to Unilever as Plant Breeding International Cambridge (PBIC). The non-commercial activities merged into the Institute of Plant Science Research.
- Institute of Plant Science Research moved to the John Innes site as part of the Cambridge Laboratory.
- 1998 Unilever operations sold to Monsanto.
- 2000 All operations at Trumpington ceased.

1952 Brymore School of Rural Technology, Bridgwater, Somerset

Established as a secondary technical school for boys by the Somerset

Education Committee, the school is currently fee paying, taking boys from 13-17 years old.

The school runs a 110 acre mixed farm and extensive gardens allowing agriculture and horticulture at GCSE, NVQ and BTEC levels.

1952 Golden Grove (Gelli Aur) Farm Institute, Llandeilo, Carmarthenshire

The name was later changed to Carmarthenshire Agricultural College. It is now part of Coleg Sir Gar and home to a 211 ha college farm (see also 1926 Pibwrlwyd Farm Institute).

1952 National Fruit Collection, Brogdale, Kent

This important collection had its roots in work dating back to 1921 at the Royal Horticultural Society gardens at Wisley, Surrey. After various management structures, originally through MAFF with Wye College (see 1896) as the scientific partner, the collection is now run by the Defra Farm Advisory Service in partnership with the University of Reading (see 1893).

1952 Nickerson Seeds

The Rothwell Farm at the centre of Joseph Nickerson's (1914-1990) seed and plant breeding enterprise, started opening to farmer visitors.

- 1958 Mr Nickerson co-authored a report submitted to the government commission on Transactions in Seeds: *The case for the introduction of legislation to provide for a just reward to be given to the plant breeder* which was instrumental in achieving intellectual property and royalties for the breeders.
- 1975 Joseph Nickerson Research Centre opened.
- 1980 The Nickerson Zwaan sugar beet programme moved to England.

Nickerson operations are now within the Limagrain group.

For more on the development of the Nickerson business and research see Ralph Whitlock's *Roots in the Soil: an adventure in agriculture* (1987).

1952 Northern Ireland Horticultural Plant Breeding Station, Loughall

2008 Now part of the Agri-Food and Biosciences Institute, Northern Ireland (see 2008).

1952 Rosewarne Experimental Horticulture Station, Cambourne, Cornwall

One of the ADAS research stations, the site is now part of Duchy College (see 1922).

1989 Closed.

1953 Burnham-on-Crouch Laboratory, Essex

The first purpose built fisheries laboratory, working particularly on pollution.

2008 The Laboratory closed and operations moved to Lowestoft (see 1902) as part of the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

1953 Glasshouse Crops Research Institute, Littlehampton, West Sussex

The Institute was established in Rustington following the transfer of some of the Cheshunt Experimental Station activities (see 1914). The first director was Dr William F Bewley, who had been director at Cheshunt since 1921. It also absorbed the work of the Mushroom Research Station at Yaxley, near Peterborough.

- 1956 Full ARC funding was gained.
- The GCRI was merged with the National Vegetable Research Station at Wellesbourne in Warwickshire (see 1949), the East Malling Research Station in Kent (see 1913) and the Hop Department of Wye College (see 1896) to create the Institute of Horticultural Research (IHR, see 1985).
- 1995 The Littlehampton site closed and operations were

transferred to Wellesbourne.

1954 Bishop Burton Farm Institute, Beverley, East Yorkshire

Now Bishop Burton College. Farming extends to 390 ha with dairy, beef, pig, sheep and arable operations.

2012 Absorbed Riseholme College (see 1949).

1954 Ellbridge Experimental Horticulture Sub-station, Saltash, Devon

Set up under the Ministry of Agriculture and managed by the Rosewarne Experimental Horticulture Station (see 1952). There had been Cornwall County Council demonstration plots on the site since 1926.

1954 Hill Farming Research Organisation, Edinburgh

The HFRO took over the management of the experimental hill farms at Glensaugh, Kincardinshire (Grampian Region), Sourhope in the Cheviots (Border Region) and Lephinmore, Argyll (Strathclyde Region). It later acquired House o'Muir (Lothian Region) and Hartwood (Strathclyde Region) farms. Its first director was A R Wannop.

- 1987 It merged with the Macaulay Institute of Soil Research, Aberdeen to form the Macaulay Land Use Research Institute (see 1930).
- 2011 Merged with the Scottish Crop Research Centre to form the James Hutton Institute (see 2011).

1954 Pershore College, Evesham, Worcestershire

This horticultural college inhabits a 60 ha site in the Vale of Evesham and is one of the Royal Horticultural Society's regional centres and also the base for the Alpine Garden Society.

2007 Merged into Warwickshire College (see also Moreton Morrell, 1948).

Ministry of Agriculture, Fisheries and Food, formerly the Ministry of Agriculture and Fisheries.

1955 North Wyke, Okehampton, Devon

North Wyke was acquired as a fertiliser research station by Fisons Ltd and is now one of the Environmental Change Network stations (see 1992).

- 1981 It was purchased by the Crown Estate Commissions and leased to the Grasslands Research Institute (see 1949).
- 1992 The Grasslands Research Institute staff were re-located from Hurley, re-named as the Institute of Grassland and Environmental Research (which included the Aberystwyth base).
- 2002 Purchased by the BBSRC.
- 2008 Merged with Rothamsted with a number of key staff going to the newly formed Institute of Biological, Environmental and Rural Sciences at Aberystwyth University (see 1872 at 2008).

1955 Norwood Hall Institute of Horticulture and Agriculture

Designed by Sir John Soane (1753-1837) in 1803, Norwood Hall was acquired by Middlesex County Council for a horticultural college in the early 1950s and opened under the headship of Frances Perry (1907-1993).

- 1960s Absorbed into Ealing Tertiary College.
- 1996 Closed horticultural section with students transferring to Capel Manor (see 1967).

1955 Pwllpeiran Research and Development Centre, Ceredigion

A 1,130 ha holding, originally part of Thomas Johnes's (1748-1818) Hafod estate. It was one of the MAFF experimental husbandry farms concentrating on Welsh upland farming, leased to ADAS Consulting Ltd on its privatisation in 1997 and thence to ADAS Wales.

2012 The Centre management transferred to the Institute for Biological Environmental and Rural Studies (IBERS) at Aberystwyth University (see 1872 at 2008).

1956 Elmwood College, Cupar, Fife

Various training activities had taken placed at Elmwood house and in the gardens and greenhouses prior to their acquisition for a college.

- 1971 Acquired Stratheden Hospital Farm.
- 2012 Merged into the Scottish Rural University College (see 2012).

1956 Farm Buildings Association

- 1991 Re-named the Rural Design and Building Association.
- 2005 Re-named the Rural and Industrial Design and Building Association.

1957 ARC Radiobiological Laboratory, Wantage, Oxfordshire

The Laboratory was set up under Dr Scott Russell. It moved to Letcombe Manor in 1962.

1985 It was closed by the Agricultural and Food Research Council and operations moved to Long Ashton (see 1903).

The site is currently operated by the American owned commercial Dow AgroSciences involved in research on crop improvements, plant nutrition and pest management.

1957 Ripley St Thomas School, Lancaster

This mixed state comprehensive school for 11 - 18 year olds dates back to 1865. In 1957 they added agricultural science to the curriculum and the 'Rural Dimension' remains a key feature of the school today with agriculture and horticultural qualifications offered alongside the usual GCSEs and A levels.

1958 Report of the Committee on Further Education for Agriculture provided by Local Education Authorities. Chairman: The Rt. Hon. Earl de La Warr (1900-1976).

1959 Fairfield Experimental Horticulture Station, Lancashire

This station was based at Kirkham near Preston.

1960s Farm Electric Centre, Stoneleigh, Warwickshire

Originally run by the nationalised electricity industry to provide information and research services to the farming and horticultural sector.

2000 The centre became a private limited company, Farm Energy, and broadened coverage to gas, oil and renewable energy.

1960 National College of Agricultural Engineering

- 1962 Opened at Boreham House, Chelmsford.
- 1963 Moved to Silsoe (see 1924 National Institute of Ag. Engineering).
- 1975 Merged into Cranfield Institute of Technology, along with the 120 ha experimental farm (see 1975).

1960 Otley Agricultural and Horticultural College, Suffolk

The Agricultural Research Centre was established at Witnesham by the East Suffolk County Council. They leased Stanaway Farm and Charity Farm from the Felix Thornley Cobbold Agricultural Trust (see 1910).

- 1970 The College moved to its present location.
- 1983 Name changed to Otley College of Agriculture and Horticulture.
- 2012 Merged with Easton College, Norfolk to become Easton and Otley College.

1960 Weed Research Organisation, Oxford

This operation was set up at Begbroke Hill Farm, near Kidlington and was staffed by a group transferred out of the Oxford Unit of Experimental Agronomy (see 1840 at 1950), headed by Dr E K Woodford (1911-1998).

1986 Closed by the ARC.

1961 British Boys for British Horticulture

Training scheme, along the lines of British Boys for British Farms (see 1932) started at Wilderwich, East Grinsted.

1962 A scheme ran at Park Hill, near Egginton, Derbyshire

1968 The scheme ended.

Barbara Vessey's British Boys for British Farms: the story of the YMCA's Farm Training Scheme, published in 1995.

1961 Wolverhampton Technical Teachers' Training College

The College was established for the training of teachers working in further education. There were four such colleges throughout the country with agriculture being dealt with by Wolverhampton.

The Agricultural Education Training Unit was established under the UK Overseas Development Administration with particular reference to training overseas students returning to deliver agricultural education in their home countries. This developed in the mid-1990s into the Centre for Rural Development and Training which is still functioning in what is now the University of Wolverhampton.

1962 Aylesbury College, Buckinghamshire

The college had an agricultural department working from a 280 acre farm at Hampden Hall.

1962 Bredon School, Tewkesbury, Gloucestershire

A co-ed boarding school for ages 4-18 which maintains a small farm and allows agriculture and horticulture to be studied for GCSE, GNVQ and BTEC qualifications, as well as an extra-curricular activity.

1962 Pig Improvement Company

The Company was formed to improve pig breeding and meat production.

- 1970 Sold out to the Dalgety Group.
- 1998 Name changed to PIC International Group plc.
- 2001 Name changed to Sygen International plc
- 2005 Acquired by Genus plc and now operating as the Pig Improvement Company Ltd (PIC)
- 2011 Moved to Colworth Science Park, Bedfordshire

1962 Stapledon Memorial Trust

Established in the memory of the eminent grassland scientist Sir George Stapledon (1882-1960) to provide largely post-doctoral travelling fellowships for research and development on all aspects of grassland and grass-related animal production.

- 1963 Report of the Committee of Enquiry into the demand for Agriculture Graduates. Chairman: Dr Charles I C Bosanquet (1903-1986).
- 1963 Report of the Advisory Committee on Agricultural Education in Farm Institutes. Chairman: Sir Harry Pilkington (1905-1983).

1963 ARC Unit of Nitrogen Fixation

Originally based at the Royal Veterinary College, London (see 1791) and now part of the John Innes Centre (see 1910).

1965 Moved to the University of Sussex.

- 1987 Joined the AFRC Institute of Plant Science Research.
- 1998 Moved to the John Innes Centre.

The university holds Nafferton Farm, 294 ha (dairy, beef and sheep) and Ouston Farm, 233 ha (arable and grassland).

1963 Arthur Rickwood Experimental Husbandry Farm, Ely, Cambridgeshire

A 150 acre MAFF farm devoted to exploring the problems of farming on Black Fen soil, leased to ADAS Consulting Ltd on ADAS's privatisation in 1997. Arthur Rickwood, the 'carrot king', who provided this site, is featured in Ken Annakin's delightful 1945 production for the Ministry of Information, Farming in Fenland: www.eafa.org.uk/catalogue/569.

1963 Holme Lacey College, Herefordshire

Now part of Herefordshire College of Technology. The estate is on the banks of the River Wye, 4 miles south of Hereford, totalling some 224 hectares, including 55 hectares of woodland (some of it ancient woodland) and 155 hectares of organic farmland comprising approximately 43.5 hectares of permanent pasture or long term leys, including the partly wooded Deer Park, 5.5 hectares of cider apple orchards and 106 hectares of arable land.

1963 University of Newcastle-upon-Tyne

The agricultural department was formed on a break away from the University of Durham (see 1871).

c1965 Northern Ireland Institute of Agricultural Science

A body established to represent the professional interests of agriculture and food science graduates working in Northern Ireland. There is a strong educational focus with CPD events, an annual conference and the award of student bursaries.

1965 Report to Enquire into the Welfare of Animals kept under Intensive Livestock Husbandry Systems. Chairman: Professor Roger Brambell (see 1884 Bangor, at 1953)

This committee led to the establishment of the Farm Animal Welfare Advisory Committee and also to the foundation of modern animal welfare principles known as 'Brambell's five freedoms', currently stated as:

- Freedom from hunger or thirst by ready access to fresh water and a diet
- Freedom from discomfort by providing an appropriate environment including shelter and resting area
- Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment
- Freedom to express (most) normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind
- Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering.

The report was, in part, a response to Ruth Harrison's (1920-2000) influential book, *Animal Machines*, published in 1964 and a driver in Europe and beyond for an examination of intensive farming methods.

1979 The FAWAC became the Farm Animal Welfare Council.

1965 Home-Grown Cereals Authority

Supported by a producers' levy to fund research and development, transfer technology, collect and disseminate market information and to advertise and promote the cereals and oilseeds sector.

2008 Taken under the newly formed Agriculture and Horticulture Development Board (see 2008).

1965 Natural Environmental Research Council (NERC)

This organisation was formed under Royal Charter when a number of

bodies, including Nature Conservancy, the Geological Survey of Great Britain, the National Institute of Oceanography, the Hydrological Research Unit and the British Antarctic Survey came together to better facilitate research and understanding in the natural environment.

1966 Farm Management Association

1995 Took the current name of the Institute of Agricultural Management.

The Institute publishes the quarterly Journal of Farm Management.

1967 Agricultural Training Board

A statutory body to organise practical, often farmer led, training courses.

- 1994 The body became ATB-Landbase, an independent not-forprofit organisation.
- 1998 The successor was Lantra, the UK Sector Skills Council for the land based industries.

1967 Capel Manor Institute of Horticulture

Billed as London's only land-based college, pupils were first taken at the newly established institute under the headship of Peter Robinson (formerly at Reaseheath College, Cheshire - see 1883). The main house was built in the 1750s.

See Steven Dowbiggin's paper on the college (1842 Farmers Club at 1996).

- 1986 Name changed to Capel Manor College.
- 1996 Absorbed students on the closure of the Norwood Hall Institute (see 1955).

1967 Enniskillen Agricultural College, Co. Fermanagh

2004 The College of Agriculture, Food and Rural Enterprise (CAFRE) formed from the merger of Greenmount (see

1912), Loughry (see 1908) and Enniskillen Agricultural Colleges.

1967 Food Research Institute, Colney, Norwich

Established, under the first directorship of Professor Sidney Elsden (1915-2006) following the closure of the Low Temperature Research Station (see 1896 University of Cambridge at 1922).

1986 Combined with the Meat Research Institute (see 1967) and some of the operations from Long Ashton (see 1903 National Institute of Fruit and Cider), the National Institute for Research in Dairying (see 1893 University College, Reading at 1912) and the Ditton Laboratory (see 1928) to form the Institute of Food Research (IFR).

1967 Meat and Livestock Commission

An industry levy board set up under the Agriculture Act 1967 to improve and market the meat industry.

The levy boards were dissolved and taken under the parent organisation: the Agriculture and Horticulture Development Board (see 2008). Meat and livestock research operations are now under BPEC (pigs) and EBLEC (beef and lamb) with the commercial operations run through Meat and Livestock Commercial Services Ltd (MLCSL).

1967 Meat Research Institute, Langford, near Bristol

Established following closure of Low Temperature Research Station (see 1896 University of Cambridge at 1922).

1986 Merged into the Institute of Food Research, Colney, Norwich (see 1986).

1967 Society of Feed Technologists

The society was established as a forum to meet and discuss agricultural livestock problems and solutions. Membership is multi-disciplinary and

is open to animal nutritionists, feed technologists, recipe formulators, academics, pharmacologists, veterinary surgeons, geneticists, feed mill managers, farm advisers etc. (see also the Edgar Pye Research Scholarship Trust, 1989).

1967 South of England Agricultural Society

This society runs their annual show at Ardingly, near Hayward's Heath, West Sussex.

1968 Cambridgeshire Farm College, Milton, Cambridgeshire

- 1987 Merged with the horticultural station at the Isle of Ely College, Wisbech to form the Cambridge College of Agriculture and Horticulture.
- 1998 Combined with the Norfolk College of Arts and Technology.
- 2006 College of West Anglia.

1968 Clinterty Agricultural College, Aberdeenshire

The college had farms at Meikle Clinterty (largely pigs), Mains of Tertowie (beef and sheep) and at the Haugh, Clinterty (dairy).

- 1991 It became part of Aberdeen College of FE.
- 2012 Closed.

1969 Weymouth Laboratory (fisheries), Weymouth, Dorset

Established for the study of diseases in salmon.

- 1997 Previously known as the Directorate of Fisheries Research, the name and status changed to the Centre for Environment, Fisheries and Aquaculture Science (Cefas), now an executive agency of Department of Environment, Food and Rural Affairs (Defra). There are operations in Lowestoft as well as Weymouth.
- 2001 The Conway Station (see 1918) work was transferred to

Weymouth.

1970 East of England Agricultural Society

Founded on the merger of the three agricultural societies: Cambridge and Isle of Ely (see 1863), Huntingdonshire (see 1837) and Peterborough (see 1840). It was joined in 1971 by Bedfordshire (see 1801) and in 1972 by Northamptonshire (see 1848). The Long Sutton & District Agricultural Society (see 1837) remains an independent affiliate.

1970 Perry Foundation

The Foundation provides awards and post-graduate scholarships in agriculture and related subjects that are of definable benefit to UK agriculture, established from the funds of Lord Percival Perry (1878-1956), the first chairman of the Ford Motor Company (England) Limited.

1970 Welsh Agricultural College, Aberystwyth

1995 Merged with the Department of Agricultural Sciences at University College, Aberystwyth to form the Welsh Institute of Rural Studies within the Aberystwyth University (see 1872).

1971 Warriner School, Bloxham, Oxfordshire

A 120 acre mixed farm was established to serve an 11-16 years mixed state comprehensive school allowing GCSE, NVQ and BTEC qualifications in agriculture and horticulture.

1972 Douglas Bomford Trust

The Trust was established on the death of Douglas Bomford by his widow, Betty, for the purpose of advancing education, training and research in the science and practice of agricultural engineering and mechanisation.

- 1973 Report on Agricultural Education in Farm Institutes. Chairman: Lord Burnham (1931-2005).
- 1973 Report of the Joint Advisory Committee on Agricultural Education. Chairman: Professor J P Hudson.

1973 Oatridge College, Ecclesmachan, West Lothian

2012 Merged with the Scottish Agricultural College (see 1990), along with Barony (see 1951) and Elmwood (see 1956) to form the Scottish Rural University College (see 2012).

1973 Rare Breeds Survival Trust, Stoneleigh

Established to conserve and protect the UK's rare native breeds of farm animals from extinction, over 20 breeds having been lost since 1900. They play a key role in monitoring, breeding programmes, research and disease control.

1975 Brewood Grammar School, Staffordshire

This boys' school was established in the fifteenth century and was open (subject to a short period of closure in the sixteenth century) until 1975. The entry is at the year of closure as I can find little information, but for a good part of the 20th century the school had a small farm and taught agriculture, along with more traditional academic subjects.

1975 Cranfield Institute of Technology

Cranfield acquired the National College of Agricultural Engineering, along with the 120 ha experimental farm.

- 1983 Name changed to Silsoe College.
- 1987 Cranfield Rural Institute formed.

The Soil Survey of England and Wales taken over from Rothamsted (see 1843 at 1947), run by the Soil Survey and Land Research Centre (SSLRC) and now its successor, the National Soil Resources Institute (NSRI).

- 1988 Shuttleworth College (see 1946) joined Cranfield Rural Institute.
- 1999 Silsoe College became Cranfield University at Silsoe.
- 2001 The National Soil Resources Institute was established.
- 2007 The Silsoe farm was retained whilst academic activities moved to the main campus of Cranfield University and the Silsoe site sold.

1978 Brimstone Experimental Husbandry Farm, Oxfordshire

The farm was leased to ADAS on its privatisation in 1997. Partly managed by Rothamsted.

1978 Campden BRI

An independent research organisation for the food and drink industry was formed from the merger of the Campden and Chorleywood Food Research Association (CCFRA) and the Brewing Industry Research Foundation (see 1912 University of Bristol at 1978).

1979 Cereals Event

This arable show is now the largest agricultural show in the country and is currently held annually in Boothby Graffoe, Lincolnshire.

c1980 Manifold Valley Agricultural Society

The Society runs a vibrant annual show near Ilam, Derbyshire for those living and farming in the parishes bounding the course of the River Manifold around the Staffordshire/ Derbyshire borders.

1981 C Alma Baker Trust

The trust was set up from the assets of Charles Alma Baker, who died in 1941, and is largely sustained by the running of a 3,217 ha estate in New Zealand. The Trust funds research and provides study and travel scholarships, supporting opportunities for British students and farmers to travel to New Zealand.

1981 Scottish Crop Research Institute

The Institute was created by the amalgamation of the Scottish Plant Breeding Station, Edinburgh (see 1921) and the Scottish Horticultural Research Institute, Invergowrie (see 1951). It administers the Scottish Society for Crop Research and the bi-annual Peter Masalski prize for the best young scientist working at the James Hutton Institute.

- 1987 The institute took on management of the Scottish Agricultural Statistics Service, now Biomathematics and Statistics Scotland.
- Mylnefield Research Services Limited was set up to deal with the commercial activities of the organisation.
- 2008 The institute acquired the 110 ha Balruddery Farm, near Dundee where the research platform, the Centre for Sustainable Cropping (see 2008), is based.
- 2011 Merged with the Macaulay Land Use Research Institute (see 1930) to form the James Hutton Institute (see 2011).

1982 LAMMA Show

The Show, now the largest of its kind in the UK, was established under the original name which indicates its origins and remit: the Lincolnshire Agricultural Machinery Manufacturers Association. The show will have a permanent base at the East of England Showground, Peterborough from 2014.

1983 Agricultural and Food Research Council (AFRC)

Formed from the Agricultural Research Council (ARC, see 1931), now within the BBSRC.

1984 Report of a Study of ADAS by Professor Ronald Bell for the Ministry of Agriculture.

1984 Potash Development Association, York

This is an independent body involved in both information exchange

together with research and development on soil fertility, plant nutrition and fertiliser use with, obviously, an emphasis on potash.

1985 Institute of Animal Physiology and Genetic Research (IAPGR)

Formed from a merger of the Institute of Animal Physiology (Babraham, see 1896 University of Cambridge at 1948), the Poultry Research Centre and the Animal Breeding Research Organisation (both at Roslin, see 1790 at 1947).

1993 Roslin and Babraham separate.

1985 Institute of Horticultural Research (IHR)

This body was formed through the merger of the Glasshouse Crops Research Institute, Littlehampton, West Sussex (see 1953), the National Vegetable Research Station at Wellesbourne in Warwickshire (see 1949), East Malling Research Station in Kent (see 1913) and the Hop Department of Wye College (see 1896 South Eastern Agricultural College).

1990 IHR merged with three former experimental horticulture stations, Efford, Kirton (see 1924) and Stockbridge House, to form Horticulture Research International (HRI, see 1990).

1986 Edinburgh Research Station

The Animal Breeding Research Organisation (ABRO, see 1945) and the Poultry Research Centre (see 1947) merge to form the Edinburgh Research Station of the Institute of Animal Physiology and Genetics Research.

- 1993 The Edinburgh Research Station became independent of the ARC and established, under its new name, as a wholly owned Institute of the BBSRC.
- 1995 The Roslin Institute became a company limited by guarantee and a Scottish Charity sponsored by BBSRC.
- 2007 The Roslin Institute was integrated with the NPU

(Neuropathogenesis Unit, see 1790 at 1981).

2008 Roslin became part of the University of Edinburgh again, within the Royal Dick Veterinary School.

1986 Horticultural Development Board

The HDB was supported by a producers' levy to fund research and development, transfer technology, collect and disseminate market information and to advertise and promote the horticultural industry.

2008 Taken under the newly formed Agriculture and Horticulture Development Board and organised through eight sector panels including Field Vegetables, Mushrooms, Protected Edibles, Soft Fruit and Tree Fruit (see 2008).

1986 Institute of Food Research, Colney, Norwich

Formed with a merger of the Food Research Institute (see 1967), the Meat Research Institute (see 1967) and some of the operations from Long Ashton (see 1903), the National Institute for Research in Dairying (1893 University College, Reading) and the Ditton Laboratory (see 1928) to form the Institute for Food Research. Funded by the BBSRC.

1987 Institute for Animal Health

Formed from a merger of Pirbirght (see 1924), the Compton Laboratory (see 1937) and the Poultry Research Station, Houghton (see 1947).

1988 Review of Expenditure by the Agricultural Departments on Research and Development - a report by Christopher J A Barnes for the Ministry of Agriculture which resulted in considerable cuts.

1988 Central Science Laboratory, York

The CSL was formed, under ADAS (see 1946), partly through a merger of the Harpenden Laboratory (see 1914 Institute for Plant Pathology) and the Pest Infestation Control Laboratory (see 1940).

- 1991 Separated from ADAS. The National Bee Unit (see 1940s) joins.
- 1996 Moved largely to Sand Hutton, North Yorkshire.
- 2009 Became part of the Food and Environment Research Agency (FERA) under Defra.

1989 Edgar Pye Research Scholarship Trust

This Trust funds awards to students from the UK or Éire to research any area of farm animal feeding including animal nutrition and management, and feed production, either at home or overseas.

The Trust was set up by the Society of Feed Technologists (see 1967) after Edgar Pye died prematurely whilst holding office as President.

1989 Dick Harrison Trust

The Trust was established on the death of Dick Harrison (1922-1989), a livestock auctioneer and partner in his family firm of Harrison & Hetherington, to provide grants for books, equipment and travel to assist with the education of persons wanting to study livestock auctioneering and / or rural estate management. Applicants must have been born or be resident in Scotland, Cumbria or Northumberland.

1990 Horticulture Research International (HRI)

This body was formed through a merger between the AFRC Institute of Horticultural Research (see 1985) - operating sites at Wellesbourne (the National Vegetable Research Station, see 1949), East Malling (see 1913), Littlehampton (the Glasshouse Crops Research Institute, see 1953) and Wye College (the Hop Unit, see 1896) and the ADAS Experimental Stations of MAFF at Efford, Kirton (see 1924) and Stockbridge (see 2001).

2004 Wellesbourne, Kirton and Stockbridge transferred to the University of Warwick forming Warwick HRI (see 2004).

East Malling, Efford and Wye became East Malling Research (see 2004).

1990 Scottish Agricultural College

Formed from the merger of Edinburgh and East of Scotland Agricultural College (see 1901), the West of Scotland Agricultural College (see 1887) and the North of Scotland Agricultural College (see 1904).

2012 Barony (see 1951), Elmwood (see 1956) and Oatridge Colleges (see 1973) merged into the Scottish Agricultural College and are now the Scottish Rural University College (see 2012).

1992 Environmental Change Network

This network manages, analyses and interprets environmental data collected at a network of sites across the UK. There are 13 terrestrial and 45 freshwater sites.

1993 Aberdeen Research Consortium

This body comprises a collaborative venture between the University of Aberdeen (see 1895), the Rowett Research Institute (see 1913 Institute for Animal Nutrition), the Macaulay Land Use Research Institute (see 1930), Fisheries Research Services (see 1929 Torry) and the Scottish Rural University College (see 2012) along with Robert Gordon University, the NHS Grampian and Biomathematics and Statistics Scotland (see 1981 Scottish Crop Research Institute at 1987).

1993 Babraham Institute, Cambridge

The Babraham Institute (see 1896 University of Cambridge at 1948) became independent.

Babraham was established as a wholly owned Institute of the BBSRC.

1994 Biotechnology and Biological Sciences Research Council (BBSRC)

The BBSRC was formed from the Agricultural and Food Research Council (AFRC, see 1983) and the biological science activities of the

former Science and Engineering Research Council (SERC) with eight supported institutes, six of which directly relate to agricultural sciences:

- Institute of Biological, Environmental and Rural Sciences, Aberystwyth University (see 1872)
- Babraham Institute, Cambridge (see 1996)
- John Innes Centre, Norwich, Norfolk (see 1910)
- Roslin Institute, Edinburgh (see 1993)
- Rothamsted Research, Hertfordshire (see 1843)
- Institute of Food Research, Colney, Norwich (see 1986)

1994 Plant Bioscience Limited (PBL)

PBL develops innovative technologies from public and private sources worldwide, turning ideas into patented, scientifically validated and licensable technologies. PBL is jointly and equally owned by the John Innes Centre (see 1910), the Sainsbury Laboratory, and the BBSRC.

1995 Milk Development Council

The Council was supported by a producers' levy to fund research and development, transfer technology, collect and disseminate market information and to advertise and promote milk to consumers, taking on some of the work formerly done by the Milk Marketing Board (see 1940s).

2008 Taken under the newly formed Agriculture and Horticulture Development Board (see 2008), with milk interests run through DairyCo.

1996 Advanta UK

Advanta UK was formed from the merger of the UK Zeneca Seeds, itself a break off from ICI, with the Dutch Royal van de Have.

Now all in the Limagrain group.

1997 ADAS UK Limited

The government Agricultural Development and Advisory Service was

privatised and is now operating with 12 specialist divisions:

Water and Air

Soils and Nutrients

Waste

Chemicals

Landscape and Vegetation

Policy Delivery and Behavioural Change

Economics and Evaluation

Land

Ecology and Wildlife

Sustainability Development and Climate Change

Sustainable Crop Management

Animal Health and Welfare.

1997 British Potato Council

Supported by a producers' levy to fund research and development, transfer technology, collect and disseminate market information and to advertise and promote potatoes to consumers at home and in export markets. It ran the Sutton Bridge Experimental Unit.

2008 Taken under the newly formed Agriculture and Horticulture Development Board.

2001 Department for Environment, Food and Rural Affairs was formed from a merger of the Ministry of Agriculture, Fisheries and Food and part of the Department of Environment, Transport and the Regions.

2001 Marshal Papworth Trust

This trust was founded through a bequest from Huntingdonshire farmer, Marshal Papworth (1939-2000) following his tragic death in a glider accident. It funds scholarships in agriculture, horticulture, water management, sustainable development and the environment. The Trust works closely with the East of England Agricultural Society (see 1970) and with particular universities (such as Reading and Writtle see 1893). It aims to educate those from developing nations who will

return home and apply their knowledge for 'the benefit of their fellow countrymen'.

2001 University of the Highlands and Islands (*Oilthigh na Gàidhealtachd agus nan Eilean*)

Various land-based / food chain areas are now embraced under this relatively new conglomerate university and are listed here under the date to which the incarnation of the particular operations can be traced.

- 1970s The Scottish School of Forestry at Balloch was originally set up under the Forestry Industry Centre within Inverness Technical College. It was renamed the Scottish School of Forestry in 1980.
- 1992 The North Atlantic Fisheries College was established in Lerwick. Prior to this various training courses for fisherman had been run through the Shetland Fisherman's Training Association, established in 1981.
- 2002 The Agronomy Institute was established at Orkney College.
- 2005 The North Atlantic Fisheries College became the NAFC Marine Centre.
- 2012 The Rivers and Lochs Institute was set up at Inverness College to research, amongst other things, freshwater fish for the food chain.

2004 College of Agriculture, Food and Rural Enterprise (CAFRE), Northern, Ireland

CAFRE was formed from the merger of Greenmount (see 1912), Loughry (see 1908) and Enniskillen (see 1967) Agricultural Colleges.

Farming operations currently consist of The Dairy Development Centre (169 ha), Abbey Farm (127 ha - beef and sheep), Hill Farm (890 ha - cattle and sheep) and the Organic Unit (36 ha - cattle, sheep and crops).

2004 East Malling Research

Formed out of Horticultural Research International (see 1990) with East Malling (see 1913), Efford and Wye (see 1896) transferring into East Malling Research.

2004 Warwick HRI

Formed out of Horticultural Research International (see 1990) with Wellesbourne (see 1949) and Kirton (see c1925) being transferred to the University of Warwick.

- 2009 Operations at the Kirton site ceased.
- 2010 Warwick HRI closed and functions merged into a new School of Life Science operating as the Warwick Crop Centre at Wellesbourne.

2006 Agri-Food and Biosciences Institute, Northern Ireland

AFBI was formed by a merger of the Science Services division of the Department of Agriculture and Rural Development (DARD) and the Agricultural Research Institute of Northern Ireland (see 1927).

The Institute incorporates, among other things:

NI Plant Testing Station, Crossnavcreevy NI Official Seed Testing Station, Crossnacreevy NI Horticultural and Plant Breeding Station, Loughall

2006 Landex

The tag line of 'Land Based Colleges Aspiring to Excellence' is self-explanatory. This organisation comprises 42 member colleges and universities in England, Scotland, Wales and Northern Ireland.

Landex was a revised form of its predecessor organisation, Napaeo (see 1950), established to represent the interests of land based colleges and the industries they serve, often at policy level.

2007 Government / other reports

A number of important reports have emerged over recent years which will impact agricultural education and research for some time, including:

Review of provision for land-based subjects (Higher Education Funding Council for England (HEFCE), 2007).

Food Matters: towards a strategy for the 21st century (Cabinet Office, 2008).

A Skills Assessment for the Environmental and Land-based Sector (LANTRA, 2009)

Towards a New Professionalism for Food Security and a Sustained Environment; the skills strategy for agriculture and horticulture (AgriSkills Forum, 2009)

UK Food Security Assessment: detailed analysis (Defra, 2009)

Food 2030 (Defra, 2010)

UK Cross Government Food Research and Innovation Strategy (Government Office for Science, 2010)

Land Use Futures: making the most of land in the 21st century (Government Office for Science, 2010)

The Future of Food and Farming: challenges and choices for global sustainability (Government Office for Science, 2011)

Innovation in EU Agriculture (House of Lords, 2011)

2007 Imperial College

Imperial gained independence from the University of London.

2009 Wye was closed by Imperial College.

2008 Agriculture and Horticulture Development Board

The five levy bodies, groups supported by industry to facilitate research, development, knowledge transfer and exchange, were replaced by one parent Board (AHDB) with six divisions.

The old levy bodies were: the British Potato Council (see 1997), the

Meat and Livestock Commission (see 1967), the Milk Development Council (see 1995), the Horticulture Development Board (see 1986) and the Home-Grown Cereals Authority (see 1965).

The new divisions are: BPEX (pig meat), EBLEX (beef and lamb), the Horticultural Development Company - HDC, DairyCo, the Potato Council and HGCA (cereals and oilseeds).

2011 James Hutton¹⁹ Institute

This institution was formed on a merger of Scottish Crop Research Centre (see 1921) and the Macaulay Land Use Research Institute (see 1930). Facilities include the Centre for Sustainable Cropping at Balruddery Farm, Angus (see 1981 Scottish Crop Research Institute at 2008), the Glensaugh Research Station, Aberdeenshire (grassland, sheep, cattle and deer, see 1904 North of Scotland Agricultural College at 1943) and the Hartwood Research Station, Shotts, Lanarkshire (cattle and sheep, see 1954 Hill Farming Research Organisation) plus extensive glasshouses in Dundee and an arboretum in Aberdeen.

2012 Easton and Otley College

Formed from the merger of Easton College, Norfolk (see 1949) and Otley College, Suffolk (see 1960).

2012 Scottish Rural University College (SRUC)

The University College was formed from the merger of the Scottish Agricultural College (see 1990), Barony (see 1951), Elmwood (see 1956) and Oatridge (see 1973) Colleges. It is now part of the Aberdeen Research Consortium (see 1993).

2012 The Henry Plumb Foundation

The foundation was founded by Lord Plumb in 2012 to help those who seek a career in agriculture through educational scholarships, bursaries,

-

James Hutton (1726-1797) was a leading figure of the Scottish Enlightenment and internationally regarded as the founder of modern geology. His work on natural selection was drawn upon by Charles Darwin.

networking opportunities and post-graduate scholarships for overseas studies.

Henry Plumb was a former President of the National Farmers' Union and, outside agriculture, a Conservative MP and the only Briton to be President of the European Parliament.

2015 The National Institutes for Bioscience

This is a partnership organisation to promote collaboration and effective research, and to develop a national strategy on biological sciences research. Members are:

Babraham Institute
The Genome Analysis Centre (TGAC)
Institute of Food Research (IFR)
John Innes Centre
Institute of Biological, Environmental and Rural Sciences (IBERS)
Pirbright Institute
Roslin Institute
Rothamsted Research

2015 International Centre for Livestock Improvement, Edinburgh

Construction has started on the new research centre at the University of Edinburgh.

Further information sought from readers

If you know the date of establishment, cessation (where applicable) or any other information on any of the following institutions, or other institutions which are missing from the above notes, please let me know.

cdesilva@harper-adams.ac.uk

Biodynamic Agricultural College, part of Emerson College, East Sussex

Brewood Grammar School, Staffordshire

Cleppa Park Horticultural Station, Newport, Wales (taken on by University College, Cardiff after MAFF closure around 1976)

Clogher National Model Agricultural School, Co. Tyrone

Crop Technology Unit, University of Wolverhampton

Efford Experimental Horticulture Station (150ha, largely Grade 2 pasture, with a 10 ha amenity woodland. 1990 merged into HRI, 2004 closed when the University of Warwick acquired HRI established. The site is now HQ of the New Forest National Park Authority).

Glenochil Research Station - Scottish Distillers yeast research

Holbeach Agricultural Centre, Lincolnshire

Imperial Institute of Soil Science (later the Commonwealth Institute of Soil Science)

Kersewell Agricultural College, South Lanarkshire

Lee Valley Experimental Horticulture Station, Hoddesdon

Liscombe Experimental Husbandry Farm, Devon (closed in 1989. 195 ha)*

Lleweni Hall Dairy School, Denbigh

Longniddry Agricultural Experimental Station, East Lothian (c1878)

Lough Ash National Model Agricultural School, Co. Tyrone

Mark Lane Express - date of cessation sought.

Newcastle Emlyn Dairy School, Dyfed

Redesdale Experimental Husbandry Farm, Newcastle-upon-Tyne Leased to ADAS Consulting Ltd on its privatisation in 1997. 1,350 ha, largely moorland along with the 22 ha Dargues Farm.*

Royal Agricultural Improvement Society of Ireland - date of cessation sought.

Scottish Institute of Agricultural Engineering (closed 1990s)

Stockbridge House Experimental Horticulture Station (acquired by HRI in 1990, becoming independent in 2001 and run as the Stockbridge Technology Centre)

Sutton Bridge Experimental Unit, Spalding, Lincolnshire

Terrington St Clement Experimental Husbandry Farm, King's Lynn, Norfolk Leased to ADAS Consulting Ltd on privatisation of ADAS in 1997. 117 ha of Grade 1 and 2 arable land. Operated with Kirton*

Whitecourt Farm Training Centre, Essex

^{*} One of the MAF(F) experimental husbandry farms.

List of Colleges and Farm Institutes by County

These institutions and more are in the main index. This list just highlights county colleges of agriculture (not horticulture, not schools, not university departments, not various smaller dairy and poultry schools) for quick reference. They are listed under familiar name. Referral to the entry, under date of establishment, will give a fuller picture with the various names under which institutions may have been known.

England

Bedfordshire	Bedfordshire Ag. Institute	1896
Berkshire	Hall Place	1949
Buckinghamshire	Hampden Hall	1962
Cambridgeshire	Milton	1968
Cheshire	Reaseheath	1890
Cornwall	Duchy	1922
Cumberland	Aspatria	1874
Cumberland	Newton Rigg	1896
Derbyshire	Broomfield	1948
Devon	Bicton	1947
Dorset	Kingston Maurward	1949
Durham	Houghall	1938
East Sussex	Uckfield / Plumpton	1894
Essex	Writtle	1893
Gloucestershire	Hartpury	1948
Hampshire	Sparsholt	1899
Herefordshire	Holme Lacey	1963
Hertfordshire	Oaklands	1921
Kent	Hadlow	1919
Lancashire	Hutton / Mysercough	1892
Leicestershire	Brooksby Hall	1946

Lincolnshire	Kesteven	1948
Lincolnshire	Kirton	c1925
Lincolnshire	Riseholme	1949
Norfolk	Easton	1949
Northamptonshire	Moulton	1921
Northumberland	Kirkley Hall	1951
Nottinghamshire	Brackenhurst	1949
Shropshire	Walford	1949
Somerset	Cannington	1921
Staffordshire	Rodbaston	1921
Staffordshire	Tamworth	1886
Suffolk	Chadacre	1920
Suffolk	Otley	1960
Surrey	Merrist Wood	1945
Warwickshire	Moreton Morrell	1948
West Sussex	Brinsbury	c1940
Wiltshire	Downton	1880
Wiltshire	Lackham	1950
Yorkshire, East	Bishop Burton	1954
Yorkshire, North	Askham Bryan	1948
Yorkshire, North	Manor Farm	1890

Scotland

Aberdeen	North of Scotland	1904
Edinburgh	Edinburgh and East of Scotland	1901
Dumfries	Barony	1951
Fife	Elmwood	1956
Aberdeen	Clinterty	1968
West Lothian	Oatridge	1973
Glasgow	Glasgow and West of Scotland	1887

Wales

Caernarvonshire	Madryn / Glynllifon	1913
Carmarthenshire	Golden Grove / Gelli Aur	1952
Carmarthenshire	Pibwrlwyd	1926

Denbighshire	Llysfasi	1911
	Usk	1913

Northern Ireland

Antrim	CAFRE	2004
Antrim	Greenmount	1912
Fermanagh	Enniskillen	1967
Fermanagh	Vaughan	1780
Londonderry	Templemoyle	1827
Tyrone	Ulster Dairy School / Loughry	1908

Ireland

Cavan	Ballyhaise	1906
Cork	Clonakilty / Darrara	1905
Cork	Munster Dairy School	1880
Dublin	Glasnevin*	1812/1838
Galway	Mountbellew	1904
Kilkenny	Kidalton	1971
Limerick	Pallaskenry / Salesian	1922
Tipperary	Gurteen	1947

^{*} Variously now the College of Amenity Horticulture (horticulture) and University College Dublin (agriculture)

Index

1902

1941

1983

1868 2008 4-H Clubs

Note: the date under which an entry is to be found may look odd - items will be found under the earliest relevant entry, hence you will see entries under dates which may precede the existence of a particular institution or person.

Entries with a question mark are those for which no dates have been established, and are further listed on page 195.

Page 1 indicates that the entry is on the first one or two pages of the Chronology (not the page number at the foot of the page).

1889 Abbotsholme School, Staffordshire 1843 Aberdeen, Banff and Kincardineshire Agric. Society 1993 Aberdeen Research Consortium 1875 Aberdeenshire Agricultural Association 1872 Aberystwyth University Acland, Sir Arthur Dyke (1847-1926) - National Association .. 1887 Acland, Sir Francis Dyke (1874-1939) - Forestry Commission 1919 1777 Acland, Sir Thomas Dyke (1809-1898) - Bath Society 1997 **ADAS** Advanta UK 1996 1924 AFRC Institute of Engineering Research 1952 AFRC Institute of Plant Science Research / Plant Breeding 1963 AFRC Unit of Nitrogen Fixation 1922 Aggrey, James (1875-1927)

Agricultural and Food Research Council (AFRC)

Agricultural and Horticultural Development Board

Agricultural and Horticultural Association

1841 Agricultural and Industrial Journal
 1842 Agricultural Chemistry Association of Scotland
 1946 Agricultural Dev. and Advisory Service (ADAS)
 1926 Agricultural Economics Society
 1972 Agricultural Education Training Unit

Agricultural Advisory Council

- 1868 Agricultural Economist and Horticultural Review
- 1875 Agricultural Engineers' Association
- c1930 Agricultural Entomology Institute, Manchester
- 1867 Agricultural Gangs Act
- 1844 Agricultural Gazette
- 1875 Agricultural Holdings Act
- 1883 Agricultural Holdings Act
- 1941 Agricultural Improvement Council
- 1799 Agricultural Magazine
- 1845 Agricultural Magazine and Journal of Scientific Farming
- 1894 Agricultural Progress
- 1931 Agricultural Research Council (ARC)
- 1927 Agricultural Research Institute of Northern Ireland
- 1834 Agricultural School for Orphans, Fearnhead, Cheshire
- 1866 Agricultural Statistics
- 1967 Agricultural Training Board
- 1919 Agricultural Wages Board
- 2008 Agriculture and Horticulture Development Board
- 2006 Agri-Food and Biosciences Institute, Northern Ireland
- 1896 Agronomy Group, University of Cambridge
- 2001 Agronomy Institute, University of the Highlands
- 1838 Albert National Agricultural Training ..., Dublin
- 1919 Alice Holt, Surrey
- 1920 Animal Diseases Research Association, Edinburgh
- 1917 Animal Health and Veterinary Laboratories Agency
- 1896 Animal Research Station, Cambridge
- 1893 Animal Science Research Group, University of Reading
- 1924 Animal Virus Research Institute, Pirbright
- 1768 Annals of Agriculture
- 1919 Arable Group (TAG)
- 1790 ARC Animal Breeding Research Organisation (ABRO)
- 1924 ARC Farm Buildings Unit
- 1898 ARC Institute of Plant Physiology, Imperial
- 1893 ARC National Institute for Dairying, Reading
- 1952 ARC Plant Breeding Institute, Cambridge
- 1790 ARC Poultry Research Centre, Edinburgh
- 1947 ARC Poultry Research Station, Houghton
- 1957 ARC Radiobiological Laboratory, Wantage

- 1790 ARC Unit of Animal Genetics, Edinburgh
- 1896 ARC Unit of Animal Physiology, Cambridge
- 1896 ARC Unit of Animal Reproduction, Cambridge
- 1896 ARC Unit of Developmental Botany, Cambridge
- 1884 ARC Unit of Embryology, Bangor
- 1840 ARC Unit of Experimental Agronomy, Oxford
- 1942 ARC Unit of Insect Physiology, London
- 1888 ARC Unit of Microbiology, Sheffield
- 1896 ARC Unit of Plant Biochemistry, Cambridge
- 1840 ARC Unit of Plant Cell Physiology, Oxford
- 1898 ARC Unit of Plant Growth Substances, London
- 1898 ARC Unit of Plant Morphogensis and Nutrition, London
- 1898 ARC Unit of Plant Physiology, Imperial
- 1896 ARC Unit of Plant Virus Research, Cambridge
- 1790 ARC Unit of Poultry Research, Edinburgh
- 1896 ARC Unit of Reproductive Physiology, Cambridge
- 1843 ARC Unit of Soil Enzyme Chemistry, Rothamsted
- 1843 ARC Unit of Soil Metabolism, Rothamsted
- 1896 ARC Unit of Soil Physics, Cambridge
- 1895 ARC Unit of Statistics, Aberdeen
- 1872 Arch, Joseph (1826-1919)
- 1950 Archers, The
- 1871 Armstrong College, Newcastle (Durham)
- 1963 Arthur Rickwood Experimental Husbandry Farm
- 1928 Ashridge College, Hertfordshire
- 1948 Askham Bryan College, Yorkshire
- 1874 Aspatria Agricultural College, Cumberland
- 1947 Association of Agricultural Education Staffs
- 1904 Association of Applied Biologists
- 1904 Association of Economic Biologists
- 1903 Assoc. to Promote the Higher Ed. of Working Men
- 1967 ATB-Landbase
- 1904 Avondale, Co. Wicklow
- 1962 Aylesbury College, Buckinghamshire
- 1901 Aynsome Agricultural Experimental Station
- 1843 Ayrshire Agriculturalist

- 1896 Babraham, Cambridge
- 1944 Bach Farm Institute, Essex
- 1620 Bacon, Francis (1561-1626)
- 1762 Baker, John Wyn (c1726-1775)
- 1819 Bakewell Agricultural and Horticultural Society
- 1760 Bakewell, Robert (1723-1795)
- 1906 Ballyhaise Agricultural College, Co. Cavan
- 1947 Balmacara House Agricultural School
- 1981 Balruddery Farm, Dundee
- 1884 Bangor University
- 1896 Barcroft, Sir Joseph (1872-1941) Cambridge at 1941
- 1821 Bannow Farm School, Co. Wexford
- 1951 Barony College, Dumfries
- 1800 Bates, Thomas (1775-1849)
- 1910 Bateson, William (1861-1926) John Innes
- 1777 Bath and West and Southern Counties Society
- 1777 Bath Society
- 1994 BBSRC
- 1653 Beale, John (1608-1683)
- 1905 Beaven, Edwin Sloper (1851-1941)
- 1946 Bedford College
- 1896 Bedfordshire Agricultural Institute, Ridgmont
- 1801 Bedfordshire Agricultural Society
- 1940s Bee Research Unit, Rothamsted and Trawsgoed
- 1807 Bell's Weekly Messenger
- 1928 Bennett, Hugh Hammond (1881-1960)
- 1949 Berkshire Institute of Agriculture, Maidenhead
- 1926 Berry, Reverend Henry
- 1947 Bicton Farm Institute, Devon
- 1896 Biffen, Sir Rowland (1874-1949) Cambridge 1908
- 1897 Bigod's School, Essex
- Page 2 Biodynamic Agricultural College, East Sussex
- 1981 Biomathematics and Statistics Scotland
- 1994 Biotechnology and Biological Sciences Research Council (BBSRC)
- 1954 Bishop Burton Farm Institute / College, East Yorkshire
- 1840 Blackman, Geoffrey Emmet (1903-1980) Oxford at 1950
- Page 1 Blith, Walter (1605-1654)

- 1793 Board of Agriculture
- 1889 Board of Agriculture
- 1903 Board of Agriculture and Fisheries
- 1928 Bonar Law Memorial College, Hertfordshire
- 1889 Bond, Arthur Harper (1853-1940) Horticultural College
- 1813 Border Union Agricultural Society
- 1923 Botley Fruit and Horticultural Research Station
- 1895 Borthwick, Professor Albert Aberdeen
- 1948 Boxworth Experimental Husbandry Farm, Cambridgeshire
- 1913 Boyd Orr, John (1880-1971) Institute for Animal Nutrition
- 1664 Boyle, Robert (1627-1692)
- 2008 BPEX
- 1949 Brackenhurst College, Nottinghamshire
- 1909 Bradfield College Ranch, Calgary
- 1864 Brandis, Dietrich (1824-1907)
- 1896 Braybrook Smith, Col. Frank (1864-1950) Cambridge 1919
- 1755 Brecon Agricultural Society
- 1962 Bredon School, Gloucestershire
- 1975 Brewood Grammar School, Staffordshire
- 1843 Brenchley, Winifred (1883-1953) Rothamsted 1906
- 1918 Brewing Industry Research Foundation
- 1925 Bridgend College
- 1948 Bridget's Experimental Husbandry Farm, Hampshire
- 1815 Bright (1811-1889)
- 1978 Brimstone Experimental Husbandry Farm, Oxfordshire
- 1940 Brinsbury Agricultural College, West Sussex
- 1831 British Association for the Advancement of Science
- 1843 British Beet Research Organisation
- 1932 British Boys for British Farms, YMCA
- 1961 British Boys for British Horticulture
- 1875 British Dairy Farmers' Association
- 1882 British Dairy Institute, Aylesbury
- 1826 British Farmers' Magazine
- 1997 British Potato Council
- 1947 British Soil Science Society
- 1914 British Sugar Technical Centre
- 1890 British Workers' Emigration Association
- 1952 Brogdale National Fruit Collection

- 1946 Brooksby Hall Farm Institute, Leicestershire
- 1948 Broomfield Agriculture College, Derbyshire
- 1843 Broom's Barn Experimental Station, Suffolk
- 1944 Browne, Charles Albert (1870-1947)
- 1952 Brymore School, Somerset
- 1910 Bureau of Agricultural Economics
- 1910 Bureaux of Dairy Science and Forestry
- 1953 Burnham-on-Crouch Laboratory, Essex
- 1946 Butterwick Research Laboratories (ICI)
- 1981 C Alma Baker Trust
- 1910 CAB (Centre for Agricultural Bioscience) International
- 2004 CAFRE, Northern Ireland
- 1872 Cahn Hill, Cardiganshire
- 1872 Cahn, Sir Julian (1882-1944) Aberystwyth 1933
- 1852 Caird, Sir James (1816-92)
- 1863 Cambridge and the Isle of Ely Agricultural Society
- 1968 Cambridge College of Agriculture
- 1896 Cambridge Institute for Animal Nutrition
- 1896 Cambridge University Farm (CUF)
- 1896 Cambridge University Potato Growers Research Assoc.
- 1968 Cambridgeshire Farm College, Milton
- 1906 Campbell, Thomas M (1883-1956)
- 1978 Campden and Chorleywood Food Research Association
- 1978 Campden BRI
- 1921 Cannington College, Somerset
- 1793 Canterbury Agricultural Society / Farmers' Club
- 1880 Canterbury Agricultural College, New Zealand
- 1967 Capel Manor
- 1895 Cardigan County Council Dairy School, Cardigan
- 1952 Carmarthenshire Agricultural College
- 1916 Carver, George Washington (c1864-1943)
- 1940s Cattle Breeding and Production Division
- 1893 Cattle Breeding Centre, Shinfield
- 1948 Caythorpe, Lincolnshire
- 1835 Central Agricultural Society
- 1910 Central Association of Agricultural Valuers

- 1866 Central Chamber of Agriculture
- 1907 Central Land Association
- 1988 Central Science Laboratory, York
- 1917 Central Veterinary Laboratory, Weybridge
- 1910 Centre for Agricultural Bioscience International (CAB)
- 1893 Centre for Dairy Research, Reading
- 1902 Centre for Env., Fisheries and Aquaculture Science (Cefas)
- 1961 Centre for Rural Development and Training
- 1981 Centre for Sustainable Cropping, Dundee
- 1790 Centre for Tropical Veterinary Medicine, Edinburgh
- 1979 Cereals Event
- 1920 Chadacre Agricultural Institute, Suffolk
- 1869 Chamber of Agriculture Journal
- 1838 Cheshire Agricultural Society
- 1886 Cheshire Dairy School
- 1883 Cheshire School of Agriculture, Reaseheath
- 1914 Cheshunt Experimental Horticultural Station
- c1940 Chichester College, West Sussex
- 1912 Chipping Campden Station for Fruit and Veg. Preservation
- 1968 Clinterty Agricultural College, Aberdeenshire
- ? Clogher National Model Agricultural School, Co. Tyrone
- 1905 Clonakilty College, Co. Cork
- 1790 Clyde Street Veterinary College, Edinburgh
- 1821 Co. Londonderry Agricultural Show Society
- 1830 Cobbett, William (1763-1835)
- 1815 Coben, Richard (1804-1865)
- 1871 Cockle Park, Newcastle-upon-Tyne
- 1776 Coke, Thomas of Holkham/Norfolk (1754-1842)
- 1917 Cold Storage Research Board
- 1913 Coleg Llandrillo Cymru
- 1926 Coleg Sir Gar, Carmarthenshire
- 1913 Colleg Gwent
- 1898 Coleyhurst (Lady Warwick) Hostel, Reading
- 2004 College of Agriculture, Food and Rural Enterprise (CAFRE)
- 1812 College of Amenity Horticulture, Dublin
- 1871 College of Science, Newcastle (Durham)
- 1871 College of Physical Sciences, Newcastle (Durham)
- 1968 College of West Anglia, Cambridgeshire

- 1780s Colling, Charles (1751-1836)
- 1780s Colling, Robert (1749-1820)
- 1890 Colonial Training Home, Shropshire
- 1843 Commercial and Agricultural School, Chester
- 1909 Commission for Rural Communities
- 1910 Commonwealth Agricultural Bureaux
- 1840 Commonwealth Forestry Institute, Oxford
- 1910 Commonwealth Mycological Institute
- 1937 Compton Laboratory, Berkshire
- 1918 Conwy, Fisheries Experimental Station
- 1676 Cooke, Moses (?-1715)
- 1832 Corbet, Henry (1820-1878)
- 1815 Corn Laws
- 1921 Corn Production Acts (Repeal) Act
- 1793 Cornwall Agricultural Association
- 1922 Cornwall College
- 1931 Council for Agric. Research and Nature Conservation
- 1909 Council of Small Industries in Rural Areas (CoSIRA)
- 1897 Countess of Warwick's Secondary and Ag. School
- 1828 Country Gentleman's Magazine
- 1907 Country Land and Business Association
- 1909 Countryside Agency
- 1912 County Antrim Agricultural School, Greenmount
- 1928 Covent Garden Laboratory
- 1790 Coventry, Dr Andrew (1764-1832) University of Edinburgh
- 1975 Cranfield Institute of Technology / Cranfield Rural Inst.
- 1790 Crew, Francis A E (1886-1973) Edinburgh 1919
- 1901 Crop and Environmental Research Centre (CERC)
- ? Crop Technology Unit, University of Wolverhampton
- 1822 Cruelty to Cattle Act
- 1896 Cumberland and Westmorland Farm School, Newton Rigg
- 1860 Curtis, John (1791-1862)
- 1887 Dairy Cattle Research Centre, Dumfries
- 1887 Dairy School for Scotland, Kilmarnock
- 2008 DairyCo
- 1896 Dampier, William (1867-1952) Cambridge 1917

- 1905 Darrara Agricultural College, Co. Cork
- 1927 Dartington Hall Laboratory
- 1840 Daubeny, Charles (1795-1867)
- 1895 Dauntsey's Agricultural School, Wiltshire
- 1908 David Lubin Memorial Library, Rome
- 1813 Davy, Sir Humphrey (1778-1829)
- 1949 De Montfort University, School of Agriculture
- 1911 Deeside College, Denbigh
- 1915 Denman, Lady Gertrude (1884-1954)
- 1896 Denman, Professor Donald (1911-1999) Cambridge 1962
- 1899 Department for Agricultural and Technical Instruction
- 1889 Department of Environment, Food and Rural Affairs
- c1914 Department for Scientific and Industrial Research
- 1875 Department of Science and Arts
- 1948 Derby College
- 1948 Derbyshire Farm Institute
- 1909 Development and Road Improvement Funds Act
- 1909 Development Commission
- 1872 Devon County Agricultural Association
- 1777 Devon County Agricultural Society
- 1989 Dick Harrison Trust
- 1790 Dick, William (1793-1866) Edinburgh 1840
- 1762 Dickson, Rev. Adam (1721-1776)
- 1969 Directorate of Fisheries Research
- 1928 Ditton Laboratory, East Malling
- 1841 Dorchester Agricultural Society
- 1949 Dorset Farm Institute, Kingston Maurward
- 1972 Douglas Bomford Trust
- 1957 Dow AgroSciences, Hitchen, Hertfordshire
- 1880 Downton Agricultural College, Wiltshire
- 1949 Drayton, Warwickshire
- 1922 Duchy College, Cornwall
- 1871 Durham Centre for Crop Improvement Technology
- 1938 Durham College of Agriculture and Horticulture
- 1913 Duthie Experimental Farm, Aberdeen
- 1892 East Anglian Institute of Agriculture, Essex

1938 East Durham College East of England Agricultural Society 1970 East Malling Fruit Research Station, Kent 1913 2004 East Malling Research 1894 East Sussex Agricultural Institute East Sussex School of Agriculture 1894 1872 Eastern Countries Ag. Labourers and Smallholders Union 2012 Easton and Otley College 1949 Easton College, Norfolk 2008 **EBLEX** 1989 Edgar Pye Research Scholarship Trust 1901 Edinburgh and East of Scotland Agricultural College 1894 Edinburgh School of Rural Economy Edinburgh Society for the Encouragement of Arts ... 1737 1902 Education Act 1944 Education Act 1872 Edwards, George (1850-1933) - National Agricultural ... 1906 Efford Horticultural Experimental Station 1898 Ekins, Emily Helen (1877-1964) Ellbridge Horticultural Experimental Sub-station 1954 1956 Elmwood College, Fife 1910 Elvedon, Viscount (1874-1967) 1838 English Agricultural Society Enniskillen Agricultural College, Fermanagh 1967 1992 Environmental Change Network Essex Agricultural Society 1858 1893 Essex Institute of Agriculture 1807 Evans and Ruffy Farmers' Journal 1664 Evelyn, John (1620-1676) 1959 Fairfield Experimental Horticulture Station, Kirkham 1946 Farm Advisory Service 1965 Farm Animal Welfare Council 1956 Farm Buildings Association 1960s Farm Electric Centre, Stoneleigh 1924 Farm Engineering Research and Testing Unit

1960s

Farm Energy

- 1966 Farm Management Association
- 1861 Farmer, The
- 1861 Farmer and Chamber of Agriculture Journal, The
- 1861 Farmer and Stockbreeder
- 1795 Farmers' Club
- 1842 Farmers' Club, Whitehall Court
- 1800 Farmer's Magazine
- 1832 Farmer's Magazine
- 1934 Farmers' Weekly
- 1843 Farming News
- 1910 Felix Thornley Cobbold Agricultural Trust
- 1836 Fermanagh Farming Society
- 1895 Finney, David (1917-) Aberdeen 1954
- 1888 Firth College, Sheffield
- 1925 Fisher, Ronald K (1890-1962)
- 1918 Fisheries Experiment Station, Conwy
- 1929 Fisheries Research Services
- 1850s Fison's
- 2010 Food 2030
- 1840 Food Animal Initiative
- 1917 Food Investigation Board
- 2008 Food Matters
- 1967 Food Research Institute, Norwich
- 1914 Food Science Laboratory, Norwich
- 1875 Fordyce, John (1724-1792)
- 1919 Forest Research
- 1919 Forestry Commission
- 2001 Forestry Industry Centre, Inverness
- 1864 Forestry Training College
- 1904 Franciscan Brothers Agricultural College, Galway
- 1943 Frank Parkinson Agricultural Trust
- 1892 Fream, William (1854-1906)
- 1836 Friends Agricultural School, Co. Down
- 1861 Frome and District Agricultural Society, Somerset
- 1847 Gardeners' and Farmers' Journal
- 1844 Gardeners' Chronicle

- 1898 Garton's Limited
- 1952 Gelli Aur Farm Institute, Carmarthenshire
- 1940s Genus ABS
- 1962 Genus PIC
- 1845 Gibson Institute for Land, Food and Rural Environment
- 1843 Gilbert, Joseph (1817-1901)
- 1871 Gilchrist, Douglas Alston (1859-1932) Durham 1896
- 1860 Gillingham Agricultural Society
- 1887 Glasgow and West of Scotland Technical College
- 1862 Glasgow Veterinary College
- 1812 Glasnevin / National Botanic Gardens
- 1838 Glasnevin Model Farm, Dublin
- 1953 Glasshouse Crops Research Institute
- 1949 Gleadthorpe Poultry Experimental Farm
- ? Glenochil Research Station
- 1904 Glensaugh Experimental Hill Farm
- 1948 Gloucestershire Farm Institute
- 1892 Gloucester Dairy School
- 1913 Glynllifon Agricultural Institute
- 1952 Golden Grove Farm Institute, Carmarthen
- 1949 Grasslands Research Institute
- 1949 Great House Experimental Husbandry Farm
- 1868 Greening, Edward Owen (1836-1923)
- 1912 Greenmount, Co. Antrim
- 1897 Greville, Frances, Countess of Warwick (1861-1938)
- Page 1 Grew, Nehemiah (1641-1715)
- 1819 Grisenthwaite, William
- 1945 Guildford College
- 1910 Guiness, Rupert, Viscount Elvedon (1874-1967)
- 1919 Hadlow College, Kent
- Page 1 Hales, Stephen (1677-1761)
- 1858 Hall Dixon, Henry (1822-1870)
- 1903 Hall, A Daniel (1864-1942)
- 1962 Hampden Hall, Buckinghamshire
- 1899 Hampshire Farm Institute
- 1928 Hannah Dairy Research Institute / Trust
- 1914 Harpenden Laboratory, Berkshire

- 1901 Harper Adams Agricultural College, Shropshire
- 1892 Harris Institute
- 1652 Hartlib, Samuel (c1600-1662)
- 1948 Hartpury College, Gloucestershire
- 2011 Hartwood Research Station
- 1928 Hawthorndale Laboratories, Jealott's Hill
- 1911 Health and Safety Laboratory
- 2012 Henry Plumb Foundation, The
- 1797 Herefordshire Agricultural Society
- 1963 Herefordshire College
- 1921 Hertfordshire Agricultural Institute
- 2008 HGCA
- 1948 High Mowthorpe Experimental Husbandry Farm
- 1784 Highland Society of Edinburgh
- 1954 Hill Farming Research Organisation
- 1927 Hillsborough Research Station, Northern Ireland
- 1836 Hillyard, Clark (1767-1842)
- 1788 Hippiatric Infirmary
- 1891 Hobhouse, Henry (1854-1937)
- ? Holbeach Agricultural Centre, Lincolnshire
- 1887 Hollesley Bay Colonial College, Suffolk
- 1963 Holme Lacy College, Herefordshire
- 1895 Holmes Chapel College of Agriculture, Cheshire
- 1965 Home Grown Cereals Authority (HGCA)
- Page 1 Home, Francis (1719-1813)
- 1766 Home, Henry, Lord Kames (1696-1782)
- 1911 Home Office Experimental Station81-1771)
- 1723 Hope, Thomas (c1
- 1941 Horticultural Advisory Council
- 1889 Horticultural College, Swanley, Kent
- 2008 Horticultural Development Company (HDC)
- 1986 Horticulture Development Board
- 1990 Horticulture Research International (HRI)
- 1896 Horticultural Research Station, Cambridge
- 1938 Houghall Hall, Durham
- 1947 Houghton Poultry Research Station
- 1926 Howard Davis Farm, Jersey
- 1926 Humane Slaughter Association

1929 Humber Laboratory, Hull 1951 Huntingdon Life Sciences 1837 Huntingdonshire Agricultural Society 1949 Hurley, Berkshire 1928 ICI Agricultural Research Station, Berkshire 1910 Imperial Agricultural Bureaux 1910 Imperial Bureau of Entomology Imperial Bureau of Mycology, Kew 1920 1875 Imperial College, London 1840 Imperial Forestry Institute, Oxford 1910 Imperial Mycological Institute 1875 Implement and Machinery Review 1815 Importation Acts 1864 Indian Forestry Service 1940 Infestation Control Laboratory, Tolworth 2011 Innovation in EU Agriculture 1845 Institute for Agri-food and Land Use, Belfast 1987 Institute for Animal Health 1913 Institute for Animal Nutrition, Aberdeen 1896 Institute for Animal Nutrition, Cambridge 1924 Institute for Engineering Research 1914 Institute for Plant Pathology, Kew Institute for Research in Ag. Economics, Oxford 1840 1924 Institute for Research in Ag. Engineering, Oxford 1840 Institute of Agricultural Engineering 1893 Institute of Agricultural History, Reading 1966 Institute of Agricultural Management 1923 Institute of Agricultural Parasitology, London 1790 Institute of Animal Genetics, Edinburgh 1791 Institute of Animal Pathology, London 1985 Institute of Animal Physiology and Genetics Res. (IAPGR) 1896 Institute of Animal Physiology, Babraham

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Institute of Arable and Crops Research, Rothamsted

Institute of Engineering Research (within the AFRC)

Institute of British Agricultural Engineering

Institute of Biological, Env. and Rural Sciences (IBERS)

1943

1872

1938

1924

- 1986 Institute of Food Research, Colney, Norwich (IFR) 1840 Institute of Forestry, Oxford Institute of Grassland and Animal Production 1872 Institute of Grassland and Environmental Research (IGER) 1872 1985 Institute of Horticultural Research 1923 Institute of Parasitology, London Institute of Plant Science Research 1952 1947 Institute of Professional Soil Scientists 1938 Institution of Agricultural Engineering 1902 International Council for the Exploration of the Sea 1908 International Institute of Agriculture 1930 International Mycological Institute International Pesticide Application Research Centre 1881 International Congress of Women 1899 1862 Iowa State College of Agriculture Irish Countrywomen's Association 1910 2011 James Hutton Institute, Scotland 1875 Jamieson, Thomas (1829-1914) - Aberdeenshire Agricultural ... 1928 Jealott's Hill, Berkshire Johnson & Shaw's Farmers' Almanac 1840 John Innes Horticultural Institution 1910 Johnson, Cuthbert (1799-1878) 1842 Johnson and Shaw's Farmers' Almanac 1832 1842 Johnston, James (1796-1855) Journal of Agricultural Economics 1926 1896 Journal of Agricultural Science Journal of Agriculture 1828 Journal of the Bath and West of England Society 1777 1875 Journal of the British Dairy Farmers Association Journal of the Farmers' Club 1842 1838 Iournal of the Royal Agricultural Society of England 1767 Journal of the Royal Lancashire Agricultural Society
- 1766 Kames, Lord, Henry Home (1696-1782)
- 1775 Kent, Nathaniel (1737-1810)

1919 1913 ? 1948 1739 1871 1949 1951 c1925 1924 1903 1908	Kent Farm and Horticulture Institute Kent Inc. Society for Promoting Experiments in Hort. Kersewell Agricultural College, South Lanarkshire Kesteven Farm Institute, Caythorpe Court, Lincolnshire Kilsyth, Lanarkshire King's College, Newcastle (Durham) Kingston Maurward College, Dorset Kirkley Hall Farm Institute, Northumberland Kirton Farm Institute Kirton Horticultural Experimental Station Knapp, Seaman A (1833-1911) Knaresborough Rural Secondary School
1050	I allan Calada Animatan
1950 c1879	Lackham School of Agriculture Ladies' Association for the Promotion of Horticulture and
C1077	Food Industries and other Country Pursuits
2003	Lady Emily Smyth Agricultural Research Station
1896	Lady Manners School, Derbyshire
1898	Lady Warwick Agricultural Association for Women
1898	Lady Warwick Hostel, Reading
1982	LAMMA
1892	Lancashire College of Agriculture
1892	Lancashire County Council Dairy School
1934	Land Settlement Association
2010	Land Use Futures
2006	Landex
1967	Lantra
1939	Lasswade Poultry Laboratory
1843	Lawes Agricultural Trust
1843	Lawes, John Bennet (1814-1900)
1948	Lawmuir Agricultural School, East Kilbride
;	Lee Valley Experimental Horticultural Station
1833	Leicestershire Agricultural Society
1887	Lephinmore Experimental Hill Farm
1957	Letcombe Radiobiological Laboratory
1840	Liebig, Justus von (1803-1873)
1869	Lincolnshire Agricultural Society

1948	Lincolnshire College of Agriculture and Horticulture
1949	Lindsey College of Agriculture, Lincolnshire
?	Liscombe Experimental Husbandry Farm
	<u>.</u>
1830	Liverpool Agricultural Society
1875	Livestock Event, The
?	Lleweni Hall Dairy School, Denbigh
1911	Llysfasi Farm Institute, Denbigh
1890	Local Taxation (Customs and Excise) Act
1923	London School of Hygiene and Tropical Medicine
1903	Long Ashton, Bristol
1837	Long Sutton and District Agricultural Society
?	Longniddry Agricultural Experimental Station
1928	Lord Wandsworth College, Hampshire
1809	Loudon, John Claudius (1783-1843)
?	Lough Ash National Model Agricultural School
1908	Loughry, Co. Tyrone
1896	Low Temperature Research Station, Cambridge
1940s	Luddington Experimental Horticultural Station
1930	Macaulay Institute for Soil Research, Aberdeen
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1930	Macaulay Land Use Research Institute
1930 1913	Macaulay Land Use Research Institute Madryn Castle Farm School, Caernarvon
1930 1913 1767	Macaulay Land Use Research Institute Madryn Castle Farm School, Caernarvon Manchester Agricultural Society
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1930 1913 1767 1767 c1980 1890 1902 1929 1832 2001 Page 1 1967 1967 1857	Macaulay Land Use Research Institute Madryn Castle Farm School, Caernarvon Manchester Agricultural Society Manchester and Liverpool Agricultural Society Manifold Valley Agricultural Society Manor Farm Agricultural College, York Marine Biological Sub-station, Lowestoft Marine Scotland Mark Lane Express and Agricultural Journal Marshall Papworth Trust Mayow, John (1643-1679) Meat and Livestock Commission Meat Research Institute, Langford, Bristol Mechi, John Joseph (1802-1880)

1925	Mid-Glamorgan College of Agriculture and Horticulture
1892	Midland Agricultural and Dairy College
1892	Midland Dairy Institute, Nottinghamshire
1854	Mid-Somerset Agricultural Society
1995	Milk Development Council
1940s	Milk Marketing Board
1898	Miln, George Peddie (1861-1928) - Garton's
1889	Ministry of Agriculture and Fisheries
1889	Ministry of Agriculture, Fisheries and Food
1896	Molteno Institute for Parasitology, Cambridge
1913	Monmouthshire Institute of Agriculture
1952	Monsanto
1920	Moredun Research Institute, Penicuik
1948	Moreton Morrell, Warwickshire
1908	Morley Agricultural Foundation
1862	Morrill, Justin Smith (1810-1898)
1838	Morton, John (1781-1864)
1844	Morton, John Chalmers (1821-1888) - Agricultural Gazette
1855	Morton's New Farmers' Almanac
1921	Moulton College, Northamptonshire
1904	Mountbellew Agricultural College, Galway
1880	Munster Dairy School and Agricultural Institute
1893	Museum of English Rural Life (MERL), Reading
1953	Mushroom Research Station
1892	Myerscough College, Lancashire
1981	Mylnefield Research Services
	,
2001	NAFC Marine Centre, Shetland
1946	National Agricultural Advisory Service (NAAS)
1872	National Agricultural Labourers' Union
1887	National Assoc. for the Promotion of Technical and
	Secondary Education
1950	National Association of Principal Agricultural
	Education Officers
1940s	National Bee Unit
1812	National Botanic Garden, Dublin
1960	National College of Agricultural Engineering

- 1896 National Diploma in Agriculture
- 19645 Natural Environmental Research Council (NERC)
- 1866 National Farm Survey (Agricultural statistics)
- 1909 National Farmers' Union
- 1952 National Fruit Collection
- 1913 National Hop Association, Kent
- 1919 National Institute for Agricultural Botany (NIAB)
- 1924 National Institute of Agricultural Engineering, Oxford
- 1903 National Institute of Fruit and Cider, Long Ashton
- 1901 National Institute of Poultry Husbandry (NIPH)
- 1893 National Institute for Research in Dairying (NIRD)
- 2015 National Institutes for Biosciences
- 1940s National Milk Records
- 1924 National Poultry Institute
- 1896 National School of Forestry (at 1965)
- 1975 National Soil Resources Institute, Cranfield
- 1949 National Vegetable Research Station
- 1909 Natural England
- 1869 Nature
- 1790 Neuropathogenesis Unit, University of Edinburgh
- 1857 New Edinburgh Veterinary School
- 1799 Newark Agricultural Society
- 1909 Newbury and District Agricultural Society
- ? Newcastle Emlyn Dairy School, Dyfed
- 1896 Newton Rigg, Cumbria
- 1919 NIAB Group
- 1952 Nickerson, Joseph (1914-1990)
- 1910 Nitrogen Fixing Laboratory, John Innes
- 1908 Norfolk Agricultural Station
- 1888 Norfolk Chamber of Agriculture
- 1949 Norfolk School of Agriculture
- 1875 Normal School of Science, London
- 2001 North Atlantic Fisheries College, Shetland
- 1843 North British Agriculturalist
- 1854 North East Agricultural Association of Ireland
- 1904 North of Scotland Agricultural College
- 1840 North Somerset Agricultural Society
- 1821 North West of Ireland Agricultural Society

North Wyke, Research Station, Devon 1955 1848 Northamptonshire Agricultural Society 1921 Northamptonshire Farm Institute, Moulton 1910 Northern Ireland Forest Service 1952 Northern Ireland Hort. and Plant Breeding Station Northern Ireland Institute of Agricultural Science c1965 2006 Northern Ireland Official Seed Testing Station 2006 Northern Ireland Plant Testing Station 1920s Northern Poultry Breeding Station 1920s Northop College, Flintshire 1951 Northumberland College (of Agriculture) 1914 Norwich Food Science Laboratory 1914 Norwich Research Park 1955 Norwood Hall Institute of Horticulture 1949 Nottingham Trent University 1949 Nottinghamshire Farm Institute 1947 Nuffield Farming Scholarships Trust 1914 Nursery and Market Garden Industries Dev. Society 1893 Nutritional Sciences Research Unit. 1921 Oaklands, College, Hertfordshire 1973 Oatridge College, West Lothian 1783 Odiham Agricultural Society Official Seed Testing Station (OSTS) 1917 Olympia Agricultural Research Co., Warwickshire 1919 1874 Ontario School of Agriculture, Guelph 1838 Ormerod, Eleanor (1828-1901) - RASE Orwin, Charles (1876-1955) - Oxford 1913 1840 Otley College, Suffolk 1960 1936 Oxford Farming Conference Oxfordshire Agricultural Society (Trust) 1811 1920s Padeswood Hall Horticultural Institute, Flintshire 1871 Palace Leas Plots 1922 Pallaskenry Agricultural College, Co. Limerick 1925 Pencoed College of Agriculture

1939	Penglais Hill Farm, Aberystwyth
1833	Penrith Agricultural Society
1900	Percival, John (1863-1949)
1970	Perry Foundation
1954	Pershore College, Worcestershire
1940	Pest Infestation Laboratory, Slough
1796	Peterborough Agricultural Society
1670	Petit Séminaire, St-Joachim
1849	Philanthropic Society Farm School, Surrey
1926	Pibwrlwyd Farm Institute, Carmarthenshire
1962	Pig Improvement Company (PIC)
1924	Pirbright Experimental Station, Surrey
1994	Plant Bioscience Limited (PBL)
1896	Plant Breeding Institute, Cambridge
1937	Plant Protection Limited, Sussex
1896	Plant Virus Research Station, Cambridge
Page 1	Plat, Hugh (1552-1608)
1894	Plumpton Agricultural College, East Sussex
1894	Plunkett, Sir Horace (1854-1932)
1919	Plunkett Foundation
1984	Potash Development Association
2008	Potato Council
1919	Potato Testing Station, Ormskirk
1896	Potato Virus Research Station, Cambridge
1790	Poultry Research Centre, Edinburgh
1947	Poultry Research Station, Houghton
1892	Preston Institute
1944	Processors and Growers Research Organisation
1877	Pumpherston Experimental Station
1831	Pusey, Philip (1799-1855)
1955	Pwllpeiran R and D Centre, Ceredigion
1831	Pyke, Magnus (1908-1992) - BAAS 1920

Reports for Government

1828 1845 Quarterly Journal of Agriculture Queen's University of Belfast

- 1884 Agricultural Ed. in North Germany, ... (Jenkins)
- 1888 Agricultural and Dairy Schools (Paget)
- 1908 Agricultural Education (Reay)
- 1915 Agricultural Education for Women (Barnard)
- 1928 The Practical Education of Women ... (Denman)
- 1943 Post-War Agricultural Education (Luxmoore)
- 1943 Agricultural Research in GB (Privy Council)
- 1944 Educational Reconstruction (Butler)
- 1945 Agricultural Education in Scotland
- 1945 Secondary School Courses Preparatory to Agricultural Employment
- 1946 Higher Agricultural Education (Loveday)
- 1947 Interim Report on Agricultural and Horticultural Institutes (Loveday)
- 1957 FE for Agriculture provided by LEA's (de La Warr)
- 1963 The Demand for Agriculture Graduates (Bosanquet)
- 1963 Agricultural Education (Pilkington)
- 1965 Welfare of Animals (Brambell)
- 1973 Agricultural Education in Farm Institutes (Burnham)
- 1973 Agricultural Education (Hudson)
- 1988 Expenditure by the agric. departments ... (Barnes)
- 2007 see entry under 2007 for subsequent reports
- c1895 Radbrook College of Agriculture
- 1973 Rare Breeds Survival Trust
- 1943 Rasberry Disease Investigation Unit
- c1883 Reaseheath College, Cheshire
- ? Redesdale Experimental Husbandry Farm
- 1889 Reed, Sir Edward (1830-1906) Horticultural College
- 1906 Regulations for Technical Schools
- 1924 Research Association of British Flour Millers
- 1893 Research Institute for Dairying
- 1875 Research Institute of Plant Physiology, Imperial
- 1910 Review of Applied Entomology
- 1910 Review of Applied Mycology
- 1864 Ribbentrop, Berthold
- 1957 Ripley St Thomas School, Lancaster
- 1949 Riseholme Farm Institute, Lincolnshire
- 2001 Rivers and Lochs Institute, Inverness
- 1921 Rodbaston, Staffordshire

- 1949 Rosemaund Experimental Husbandry Farm
- 1952 Rosewarne Horticultural Experimental Station
- 1790 Roslin Institute, Edinburgh
- 1843 Rothamsted, Hertfordshire
- 1913 Rowett Institute for Animal Nutrition
- 1857 Royal Agricultural Benevolent Institution
- 1845 Royal Agricultural College, Gloucestershire
- 1841 Royal Agricultural Improvement Society of Ireland
- 1838 Royal Agricultural Society of England
- 1845 Royal Agricultural University, Gloucestershire
- 1865 Royal Albert Veterinary College
- 1875 Royal Association of British Dairy Farmers
- 1777 Royal Bath and West of England Society
- 1791 Royal College of Veterinary Surgeons
- 1790 Royal (Dick) Veterinary College
- 1731 Royal Dublin Society
- 1784 Royal Highland and Agricultural Society of Scotland
- 1833 Royal Jersey Agricultural and Horticultural Society
- 1767 Royal Lancashire Agricultural Society
- 1767 Royal Manchester, Liverpool ... Agricultural Society
- 1838 Royal Show
- 1799 Royal Smithfield Club
- 1662 Royal Society
- 1854 Royal Ulster Agricultural Society
- 1996 Royal van de Have, Netherlands
- 1791 Royal Veterinary College, London
- 1900 Royal Veterinary College of Ireland
- 1904 Royal Welsh Agricultural Society
- 1956 Rural and Industrial Design and Building Association
- 1956 Rural Design and Building Association
- 1909 Rural Development Commission
- 1894 Rural Education and Development Association
- 1910 Rural Education Conference
- 1893 Rural History Centre, Reading
- 1949 Rural Science Centre, Lincoln
- 1803 Rusheyford Experimental Society
- 1843 Russell, Sir John (1872-1965)
- 1825 Rutland Agricultural Society

- 1910 Sainsbury Laboratory
- 1922 Salesian Agricultural College, Co. Limerick
- 1988 Sand Hutton, York
- 1899 Saxmundham Experimental Field
- 1819 Scarsdale and High Peak Agricultural Society
- 1840 Schlich, Wilhelm (William) (1840-1925) Oxford 1905
- 1904 School of Forestry and Woodmen, Gloucestershire
- 1990 Scottish Agricultural College
- 1946 Scottish Agricultural Machinery Testing Station
- 1921 Scottish Crop Research Centre
- 1981 Scottish Crop Research Institute
- 1887 Scottish Dairy Institute
- 1904 Scottish Farm Buildings Investigation Unit
- 1843 Scottish Farmer and Agricultural Adviser
- 1861 Scottish Farmer and Horticulturist
- 1929 Scottish Fisheries Protection Agency
- 1951 Scottish Horticultural Research Institute
- ? Scottish Institute of Agricultural Engineering
- 1921 Scottish Plant Breeding Station
- 2012 Scottish Rural University College
- 2001 Scottish School of Forestry, Inverness
- 1981 Scottish Society for Crop Research
- 1917 Scottish Women's Rural Institute
- 1919 Seale Hayne, Devon
- 1919 Seed Production Council
- 1891 Sexey's School, Somerset
- 1946 Shardlow Hall, Derbyshire ADAS Laboratory
- 1832 Shaw, William (1797-1853)
- 1866 Shropshire Chamber of Agriculture
- 1949 Shropshire Farm Institute, Walford
- c1895 Shropshire College of Domestic Science and Dairy Work
- c1895 Shropshire Technical School for Girls
- 1946 Shuttleworth Agricultural College, Bedfordshire
- 1796 Sibthorp, John (1758-1796) Oxford
- 1975 Silsoe College
- 1924 Silsoe Research Institute

- 1898 Silwood Park, University of London
- 1793 Sinclair, John (1754-1835) Board of Agriculture
- 1896 Sir William Dunn Institute of Biochemistry, Cambridge
- 1919 Sittingbourne Farm Institute, Kent
- 2009 Skills Ass.t for the ... Land-based Sector
- 1896 Small Animal Breeding Institute, Cambridge
- 1914 Smith, Hoke (1855-1931)
- 1833 Smith, James (1782-1867)
- 1799 Smithfield Cattle and Sheep Society
- 1917 Smithfield Laboratory
- 1826 Society for the Diffusion of Useful Knowledge
- 1967 Society of Feed Technologists
- 1723 Society of Improvers in the Knowledge of Agriculture ...
- 1910 Society of United Irishwomen
- 1893 Soft Fruit Technology Group, Reading
- 1884 Soil Survey, The
- 1930 Soils Correlation Committee
- 1921 Somerset Farm Institute, Cannington
- 1790 Somerville, William (1860-1932) Edinburgh 1889
- 1901 Sourhope Experimental Hill Farm
- 1896 South Eastern Agricultural College
- 1967 South of England Agricultural Society
- 1899 Sparsholt College, Hampshire
- 1921 Staffordshire Farm Institute
- 1872 Stapledon, Sir George (1882-1960) Aberystwyth
- 1962 Stapledon Memorial Trust
- 1842 Stephens, Henry (1795-1874)
- ? Stockbridge House Horticultural Experimental Station
- 2001 Stockbridge Research Centre, North Yorkshire
- 1930 Strawberry Disease Investigation Unit
- 1932 Street, A G (1892-1966)
- 1981 Study of ADAS, Professor Ronald Bell
- 1898 Studley Castle Horticultural and Agricultural College
- 1831 Suffolk Agricultural Association
- 1945 Surrey Farm Institute, Merrist Wood
- c1881 Sussex Association for the Improvement of Agriculture
- 1892 Sutton Bonington, University of Nottingham
- ? Sutton Bridge Experiment Unit, Spalding

1806	Sutton's Seeds
1889	Swanley Horticultural College, Kent
1902	Talbot, Meriel (1866-1956), also at 1915
1886	Tamworth Agricultural College
1889	Technical Instruction Act
1827	Templemoyle Agricultural Seminary, Londonderry
5	Terrington St Clement Experimental Husbandry Farm
1919	The Arable Group (TAG)
2011	The Future of Food and Farming
1890	Theobold, Frederic (1868-1930)
1797	Three Counties Agricultural Society
1908	TMAF (The Morley Agricultural Foundation)
1929	Torry Research Station, Aberdeen
2009	Towards a New Professionalism for Food Security
1730s	Townshend, Viscount Charles (1674-1738)
1784	Transactions of the Highland and Agricultural Society
1946	Trawscoed Experimental Husbandry Farm, Aberystwyth
1912	Trigg, Edna Westbrook (1868-1946)
1928	True, Alfred Charles (1853-1929)
1920	Tuberculin-Tested Milk Producers Association
1731	Tull, Jethro (1674-1741)
1907	Turnor, Algernon (1845-1922) - Central Land Association
1970	Turnor, Christopher Hatton (1873-1940)
1805	Tyneside Agricultural Society
1001	
1894	Uckfield Agricultural and Horticultural College
2010	UK Cross Government Food Research Strategy
2009	UK Food Security Assessment
1908	Ulster Dairy School, Loughry, Co. Tyrone
1913	UN Food and Agriculture Organisation
1952	Unilever
1888	Unit of Comparative Plant Ecology, Sheffield
1888	Unit of Grassland Ecology, Sheffield
1926	Universities Federation for Animal Welfare (UFAW)
1872	University College of Wales, Aberystwyth

- 1884 University College of Wales, Bangor
- 1945 University College of Wales, Cardiff
- 1838 University College, Dublin
- 1927 University College, Exeter
- 1895 University of Aberdeen
- 1912 University of Bristol
- 1896 University of Cambridge
- 1896 University of Central Lancashire
- 1896 University of Cumbria
- 1871 University of Durham
- 1914 University of East Anglia
- 1790 University of Edinburgh
- 1862 University of Glasgow
- 2001 University of the Highlands and Islands
- 1890 University of Leeds
- 1949 University of Lincoln
- 1904 University of Liverpool
- 1898 University of London
- 1926 University of London Animal Welfare Society
- 1909 University of Manchester
- 1963 University of Newcastle-upon-Tyne (see also Durham, 1896)
- 1892 University of Nottingham
- 1840 University of Oxford
- 1919 University of Plymouth
- 1845 Queen's University of Belfast
- 1893 University of Reading
- 1888 University of Sheffield
- 1913 Usk College of Agriculture
- 1870 Vale of Todmorden Agricultural Society
- 1780 Vaughan Trust, Charter School and Farm Institute
- 1791 Veterinary College of London
- 1873 Veterinary College, Edinburgh
- 1917 Veterinary Laboratories Agency
- 1841 Villiers, George, Earl of Clarendon (1800-1870) Royal ...
- 1849 Voelcker, Augustus (1822-1884)

- 1949 Walford College of Agriculture, Shropshire
- 1911 Wallingford Farm Training Colony
- 1939 War Agricultural Executive Committee
- 1878 Warington, Robert (1838-1907)
- 1971 Warriner School, Oxfordshire
- 2004 Warwick Crop Centre
- 2004 Warwick HRI (Horticulture Research International)
- 1948 Warwickshire Institute of Agriculture
- 1906 Washington, Booker T (1856-1915)
- 1932 Waterperry Horticultural School, Oxfordshire
- 1874 Webb, Professor Henry (1846-1893) Aspatria
- 1840 Webb, Jonas (1796-1862)
- 1960 Weed Research Organisation, Oxford
- 1949 Wellesbourne, Warwickshire
- 1970 Welsh Agricultural College, Aberystwyth
- 1920s Welsh College of Horticulture
- 1970 Welsh Institute of Rural Studies, Aberystwyth
- 1904 Welsh National Agricultural Society
- 1872 Welsh Plant Breeding Station, Aberystwyth
- 1908 Welshpool County School for Boys
- 1887 West of Scotland Agricultural College
- 1799 Westmorland County Agricultural Society
- 1902 Weymouth, Fisheries Experimental Station
- 1889 Wilkinson, Fanny 'Rollo' (1855-1951) Horticultural College
- 1889 Wilson, Sir Jacob (1806-1905)
- 1950 Wiltshire Farm Institute, Lackham
- 1876 Woburn Experimental Station, Bedfordshire
- 1961 Wolverhampton Technical Teachers Training College
- 1806 Wolsingham Agricultural Society
- 1899 Women's Agricultural and Hort. International Union
- 1898 Women's Agricultural Times
- 1899 Women's Farm and Garden Association
- 1899 Women's Farm and Garden Union
- 1915 Women's Institute
- 1916 Women's Land Army
- Page 1 Woodward, John (1665-1728)
- 1903 Workers' Educational Association

- 1940 Worlesdon Research Station, Surrey Worleston Dairy Institute, Cheshire c1883 1669 Worlidge, John (1640–1700) Worshipful Company of Agriculturalists 1946 1946 Worshipful Company of Farmers 1852 Wren Hoskyns, Chandos (1812-1876) 1880 Wrightson, Professor John (1840-1916) - Downton 1893 Writtle, College, Essex 1896 Wye College, Kent 1943 Yorkshire Agricultural Adventurers Yorkshire Agricultural Society 1837 Yorkshire College of Science 1890 1948 Yorkshire Institute of Agriculture Youatt, William (1776-1847) - Society for the Diffusion ... 1826 1921 Young Farmers' Clubs 1929 Young Farmers' Clubs of Ulster 1768 Young, Arthur (1741-1820)
- 1996 Zeneca Seeds

'You know, farming looks mighty easy when your plow is a pencil, and you're a thousand miles from the corn field.'

Dwight D Eisenhower (1890-1969)

Address at Bradley University, Peoria, Illinois, 25th September 1956