



Harper Adams
University College

New Era Precision Farming and the Role of the National Centre for Precision Farming (NCPF)

Programme and Report

OCTOBER 2012

New Era Precision Farming and the Role of the National Centre for Precision Farming (NCPF)

October 29th 2012, Harper Adams University College

Report on One-Day Seminar for Stakeholders

The National Centre for Precision Farming (NCPF) is being established as a forward-thinking forum and facility for developing, nurturing and promoting precision farming, bridging the gap between the theory and practices considered essential to the pursuit of farming excellence. It draws upon the well-established foundations of agricultural, engineering and precision farming excellence for which HAUC is recognised and points towards a new era of engineering and technological change, driven by developments both within and outside farming, and by challenges of global and national dimensions concerning food requirements and sustainability.

In seeking to achieve its objectives as a viable, self-sustaining national centre it was considered important to address, and accommodate as appropriate, the views of stakeholders in farming and associated disciplines. With this in mind a stakeholder seminar was held on 29th October 2012, at HAUC, the outcome of which has provided useful pointers towards the Centre development and stakeholder support.

The one-day seminar (*see programme below*) provided an inclusive view of precision farming, its legacy and future prospects as well as a view on the role that the NCPF can be expected to have and a case for UK investment, leadership and collaborative support in advancing precision farming as an imperative for the UK farming industry. The seminar also looked at the need for effective awareness, education, training and research to underpin new era demands and opportunities. Very importantly the seminar provided the declared opportunity for stakeholders to express their views and guidance on the development of Centre, revealing the following needs:

1. The need to engage strongly with practicing farmers and to consider the roles and needs of small and medium sized enterprises as well as the larger farming practices.
2. The need for greater awareness and training support for precision farming and associated developments, with emphasis upon sustained motivation in taking training outcomes into the farm whilst recognising and countering the issues, such as lack of awareness or resources, that were considered to account for loss of motivation. Herein was seen the need for follow-through support that could include schemes for innovation and business development such as those being promoted through the Technology Strategy Board. With regard to training events, initial views pointed to:
 - An introduction to precision farming
 - Building awareness of precision farming and its significance within the Food Supply chain
 - Training in taking product and services to market
 - Training on good practice in the use of precision farming products and systems.
3. It was also suggested that the Centre should identifying and promote support schemes for training including the Advanced Training Partnerships.
4. The need and the opportunity to share information on precision farming, together with the facility to accommodate so called 'big data' that is being associated with precision farming developments, recognising too the opportunity this presents for commercial information services and centralised, Internet-based, facilities.
5. The need for systems interconnectivity solutions and standards, not only with regard to the strongly debated ISOBUS standard and issues of interoperability, but also with respect to areas such as data formats, data management and data transfer. Monitoring and responding to developments concerning ISOBUS, particularly within the Agricultural Industry Electronic Foundation (AEF), was seen as a prospective role for the Centre, including ISOBUS related events.

6. The need to consider developments and case analyses in other disciplines, such as manufacturing, with view to applying them in precision farming.
7. The need to consider the growing attention to the use of Unmanned Ariel Vehicles (UAVs), also known as Unmanned Ariel Systems (UAS), in precision farming, including the issues of privacy, security and safety associated with their use.
8. The need to consider the translation of research outcomes into practical farming developments, recognising too the importance of, and the need for, joint ventures and cooperation between farmers.

The seminar was attended for the period of Professor Blackmore's presentation on "The Importance of the National Centre for Precision Farming" by Her Royal Highness the Princess Royal. Professor Blackmore drew attention to the nature and importance of advances in engineering and robotics applied to precision farming and the unique role that Harper Adams University College and the NCPF will have to play in its development.

The seminar finished on a note of strong optimism and declared support for the Centre and its development in collaboration with stakeholders. The seminar was seen as very much the start of that collaboration. A Centre office has now been set-up with a view to building that collaboration and establishing a tangible point of contact for external NCPF communications and collaborative initiatives.

Presentations will be available for download in due course.

Anthony Furness
9 November 2012

Programme

- 10:00 Registration and Coffee
- 10:30 Welcome by the Principal of Harper Adams University College,
Dr David Llewellyn
- 10:35 The Legacy View of Precision Farming
(Speaker: Prof Richard Godwin, Visiting Professor, Harper Adams University College)
- 10:55 Awareness, Education, Training and Research for Precision Farming
(Speaker: Dr Mark Rutter, Harper Adams University College)
- 11:15 The Use of Network GNSS for Precision Farming
(Speaker: Dr Xiaolin Meng, Director of the Sino-UK Geospatial Engineering Centre, Nottingham University)
- 11:35 The Multi-disciplinary Approach to Precision Farming and Integrated Supply Chain Development
(Speaker: Dr Tomas Norton, Harper Adams University College)
- 12:30 Lunch and Networking
- 13:30 Afternoon check-in
- 13:45 Protocol Briefing
- 14:00 The Importance of Engineering, Robotics and 'Smart' Systems in Precision Farming
(Speaker: Prof Simon Blackmore, Harper Adams University College)
- 14:20 Stakeholder discussion – inviting questions and comments on 'Smart' system developments in Precision Farming
- 14:45 The Importance of ICT developments and the emergent Internet of Things in Precision Farming
(Speaker: Prof Anthony Furness, Harper Adams University College)
- 15:05 Supporting Innovation in UK Agriculture - the role of Technology Strategy Board
(Speaker: Calum Murray, Technology Strategy Board)
- 15:25 HAUC Strategy Tour – demonstrating current work on Precision Farming at Harper Adams and opportunities for industry stakeholder engagement
- 15:45 Discussion and refreshments
- 16:15 Closing remarks by the Director of the NCPF, Prof Simon Blackmore - outlining the NCPF programme for the coming year and next steps with the stakeholder group
- 16:30 Close