Only greater agricultural science co-operation will deliver production and sustainability gains

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Farmers, scientists, the food industry and the Government must work more closely if UK agriculture is to increase production while protecting the environment.

That was a key finding of two pieces of unique research into future agricultural science needs revealed at the Oxford Farming Conference today (6th January 2010).

The OFC research was carried out in association with dairy nutrition company Volac and the Biotechnology and Biological Sciences Research Council. It consisted of a survey of 600 farmers by the National Farm Research Unit and the views of 10 technical specialists in the food industry gathered by the IGD. The results were presented to conference delegates by Professor David Leaver, former Principal of the Royal Agricultural College and a member of the Government’s Council of Food Policy Advisors.

Crop protection may have been seen as the most important past agricultural science advancement by farmers, but plant breeding was identified as the most important future production development, with GM technology seen as playing a significant role. Soil and water management techniques were also regarded as very important if farming is to be sustainable in the future. Prevention and control of animal diseases were also seen as key areas for research, as were animal genetics, nutrition and welfare.

The farmers were also asked who they believe currently delivers agricultural science research to them and who should do so in the future. Nearly 60% said the agricultural supply industry is the most important deliverer of science, with just 21% saying the Government is. However, 56% believed the Government should be responsible for agricultural science in the future. Only 10% thought the Agricultural and Horticultural Development Board is the most important deliverer of agricultural science now and just 7% thought it should be in the future.

An estimate of current funding on agricultural research prepared for the conference suggests that there is a significant mismatch between who is perceived to do the research and who is actually doing it. In contrast to the farmers’ perceptions, annual funding of agricultural research by the Government is currently worth £264 million – 75% of the overall total of £350 million. Funding by the agricultural supply industry is worth £56 million – 16% and by farmers (largely through the AHDB) is £29 million – 8%. Public funding for research is also expected to increase by around £16 million a year as the Government has committed £80 million over the next five years through the Technology Strategy Board.

Farmers also suggested that science research needs to be more applied and simpler to understand if they are to derive the greatest value from it. Communication of research is seen as key with around 80% saying that the press is the most important means of communicating scientific developments.

“These are very important pieces of work and should help politicians and the food and farming industry identify what the future direction of agricultural science should be and who should deliver it,” says Prof Leaver.

The 10 food industry members included retailers, processors, wholesalers and foodservice operators. They rated the importance of primary agricultural research to their business as eight out of ten, but judged the usefulness of current agricultural research at just five out of ten. They wanted more research on improved cultivation techniques and methods of withstanding climate change, while improvements in the food processing and supply chain from farm gate to consumer were also important. The group also saw new technology as playing a key role in the future. However, they warned that – without the right research – food prices and imports are likely to rise, further eroding the UK’s competitive advantage. Meanwhile, a fragmented approach to research would lead to duplication and confusion.

“The key messages from this research are that for UK agriculture to be competitive, we need a functioning R&D chain which can deliver the new technologies needed to satisfy the food production and environmental demands of the future. This will require greater co-operation and engagement by all as well as more clarity as to how research is funded, prioritised and applied,” says Professor Leaver.