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How will the global supply chain look in the future?

John Giles

Drawing on his experience as a Divisional Director with Promar International, the author assesses current movements in the food supply chain, and the consequent future risks and opportunities.

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Higher Level Skills for Food Security: Do we have the right ingredients?

David Llewellyn

This paper reviews what we mean by 'higher level skills' and who is best placed to provide them. It investigates contemporary issues that need to be addressed so that the best possible people can be provided to tackle the agri-food challenges we face in the light of the debate on food security. Finally, the ingredients for success are considered, in the context of collaborative frameworks for agricultural higher education, closer links with industry and international examples of investment in higher level skills.

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Determinants of the Farm Gate Price of Milk

Paul Wilson

Recent variability in farm gate milk prices has led to increased interest in milk selling arrangements. Analysing data for 220 conventional English dairy producers reveals significant differences in the milk contract and selling arrangements of producers receiving the top 25% of milk prices, when compared to producers receiving the bottom 25% of milk prices. Hedonic regression analysis estimates the value of the individual attributes of milk selling arrangements. Milk price variation is likely to hasten further structural change in dairying.

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Canopy management of winter oilseed rape

A.K.S. Aronsson and P.S. Kettlewell

Canopy management is the manipulation of the green crop canopy to optimize light interception for seed growth and yield. Winter oilseed rape canopies are very variable in size and large canopies lead to reduced seed yield through shading. Several aspects of crop management can be modified to prevent seed yield reduction from excessive canopy size, including: establishment method, seed rate for early sowing dates, nitrogen fertilizer rate and timing, plant growth regulator application, defoliation.

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Outreach Developments of the Farm Business Survey: An Overview by Rural Business Research

Paul Wilson and Ben Lang

Funded by Defra, the English Farm Business Survey (FBS) is undertaken by Rural Business Research (RBR). The research programme provides a fully reconciled management account on nearly 2000 farms across England each year, meeting part of the UK's submission to the Farm Accountancy Data Network (FADN) and the UK Government's needs for farm business performance data. RBR host a series of free-to-use on-line data delivery services, including: FBS Farm Business Benchmarking, incorporating benchmarking at EU level; FBS regional reports capturing physical and financial data by farm type; FBS data builder, allowing users to specify bespoke data requests; farm type, enterprise and regional intelligence reports. During the spring of 2011 and 2012, RBR aim to host a series of regional workshops showcasing the benefits of these free-to-use data services.

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Robotics and Smart Engineering

David Gardner

Developments in robotic engineering and computer based technologies offer huge opportunities for agriculture. Robots have the potential to undertake a wide variety of operations on the farm including some of the mundane tasks such as manual harvesting. This paper explores the way in which the good robotics engineer is capable of thinking 'outside the box' and how he has to have a good grasp of the economics of the problem he is seeking to solve. The various components available to the engineer are considered including sensing systems, power units and control systems as well as the mechanical machine that does the work. Case studies include an asparagus harvester, robotic weeding, fruit harvesting and movement sensors for use with dairy cows.