

THE USE OF AN APPLIED STUDENT COMPETITION TO ENHANCE CEREAL CROP MANAGEMENT SKILLS FOR THE ARABLE FARMERS AND AGRONOMISTS OF THE FUTURE

Sub-theme: Labour Force for the Future

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Abstract:

The Mains of Loirston/SRUC Winter Wheat Challenge was established to encourage the next generation of farmers and agronomists by giving them their own field trial plots of winter wheat to manage over the growing season. Teams of students and other young people involved in the industry aim to produce the most profitable crop, as measured by gross margin. Agronomy decisions on variety, seed rate, fertilisers and pesticides are made, by the teams. These are based on real-time information from a range of sources (course information, updates posted on the competition website, industry contacts, and press and other literature) and field visits during the season.

Field visits are facilitated by SRUC staff. Plots are grown in replicated trials grown at three SRUC crop field sites across Eastern Scotland. Students from different SRUC Campuses base their decisions on the condition of the "crop" at the closest site.

Where visits to sites are not possible, videos of the plots are made available to update students on the condition of the crop. Plots are harvested and quality analyses carried out, allowing a realistic grain price and gross margin to be calculated.

Innovations are introduced where possible to keep the competition "fresh" and of relevance to these future farmers, agronomists and researchers. For instance precision farming technology in the form of a hand-held crop sensor was made available to assist teams in their fertiliser decision making at key points in the season. Industry engagement is also an important element of the competition.

The competitors gain invaluable learning and experience from putting theory into practice while also having an opportunity to "experiment" with different input systems on a small plot basis with negligible levels of risk; a facility that may not be available on the commercial farms where they will be working in the future. The benefits of "learning by doing" have been well documented. As the teams operate semi- autonomously, there are also invaluable benefits in terms of the development of interpersonal skills and competences such as team working, decision-making, networking and research skills, all of which are important preparation for future employment. The industry engagement also provides opportunities to discuss potential career opportunities.

From a farm management perspective the competition helps reinforce key management issues such as focussing on the importance of margin and targeting production at an identified market. It is hoped to further develop the competition to include a grain marketing element in future years.

Keywords: Crop Management; Applied Competition; Farm Management Skills

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