

Global knowledge

TEAGASC is part of a strategic collaboration with AgResearch New Zealand, INIA Uruguay, and IRTA Spain focused on improving grassland agriculture.



In 2015, Teagasc signed a partnership agreement with AgResearch in New Zealand, INIA (Instituto Nacional de Investigación Agropecuaria) in Uruguay, and IRTA (Institut de Recerca i Tecnologia Agroalimentaries) in Spain to promote increased collaboration on research in grassland agriculture. The agreement became operational in 2017.

The partnership focuses on exploring the sustainability and competitiveness challenges facing the grassland sectors (dairy, beef and sheep) in each of the participating countries, while protecting and maintaining the environment and delivering added value to consumers. Given that this is a global focus, each of the participating organisations will identify key niches where it can provide innovative solutions and transition pathways to address the challenges, while acknowledging the social, economic and cultural context within which each organisation operates.

The objective of the partnership is to work together to address common issues in the grassland sector and to provide an opportunity and a platform to grow and empower our researchers, challenge each other, and use our diversity to unlock global problems. Our aim is to create a world-class, globally connected science community, delivering science on pasture-based livestock systems and value chains that addresses common challenges in agri-food productivity, competitiveness and sustainability.

While research collaborations between these four institutes are not new, this new partnership agreement provides an opportunity to embed earlier *ad hoc* activities in a more strategically targeted way that will lead to lasting collaboration and new innovations.

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Strategic themes

Given the enormity of the topic, the participating organisations identified six high-level themes around which to focus their research and collaborative activities. The six themes are: pasture and animal performance; environmental data and decision-making; meat quality; genetic performance; business models; and, research to impact.

Theme 1: use of pasture and performance data

This theme focuses on the application and use of data, tools and methods to improve farmer decision making about grassland use, so as to optimise tactical and strategic choices. It aims to leverage the science capabilities among the strategic partners to combine data and

knowledge on a variety of pasture types and low cost/input systems so as to identify novel ways to improve grassland efficiency in a sustainable way.

Theme 2: use of environmental data

This theme focuses on providing data and tools to enable farmers to better understand how their decisions impact environmental outcomes on their farms (e.g., biodiversity, GHG emissions, carbon storage, water quality) as well as on their own economic, social and environmental values. It aims to leverage the science capabilities among the strategic partners to capture data on diverse environmental outcomes and grazing systems to produce better environmental outcomes.

Theme 3: increased value from enhanced meat quality

This theme focuses on adding value to grass-based production systems by increasing the quality of meat. It aims to leverage the science capabilities among the strategic partners to characterise the parameters of eating quality of meat from grazing production systems that are relevant for consumers in the participating countries. Another aim is to promote innovative post-mortem systems to improve quality.

Theme 4: genetic performance

This theme focuses on improving the genetics and breeding of both grass and animals by developing an international reference population. It aims to leverage the science capabilities among the strategic partners to capture and utilise data on growth, body score condition, carcass classification and quality, etc., and to share genomic, phenotypic and pedigree information among participating countries.

Theme 5: business models that will add value

This theme focuses on the need to develop new business models, both on farm and along the value chain, that will enable the agri-food sectors to exploit opportunities and facilitate change in the emerging bio and circular economies. It aims to leverage the science capabilities among the strategic partners to develop new business models for sustainable development.

Theme 6: research to impact

This theme focuses on ensuring that science delivers outcomes and impact by developing appropriate processes and tools to measure progress. It aims to leverage the science capabilities among the strategic partners to share knowledge, learning and experience of different approaches to outcomes that lead to impact, and to build synergies across the participating organisations.

Activities to date

Considerable progress has been made in the past six months to turn the high-level themes into collaborative research projects that will add value to the work already underway in each organisation. Each theme has a working group and the members of each group are currently collating research and expertise across the four partners and developing research proposals.

Workshops are planned for each of the other research themes in 2018, where collaborating researchers will develop proposals and plans for their projects.

In November 2017, the working group for theme 6: research to impact, led by James Turner (AgResearch), held its first workshop at Teagasc, Oak Park. The workshop was facilitated by Toni White and Helen Percy (AgResearch), and Kevin Heanue (Teagasc), and was attended by representatives from each of the partner organisations. The workshop focused on developing a research proposal to answer the fundamental question: how will we know if research and science is delivering its intended impact? Workshops are planned for each of the other research themes in 2018, where collaborating researchers will develop proposals and plans for their projects.

Strategic partnership structure

The strategic partnership consists of a Board made up of the chief executives of the participating organisations and an implementation team consisting of representatives from each of the partner organisations: Liz Wedderburn, AgResearch; Jane Kavanagh, Teagasc; Veronica Musselli, INIA; and, Eliecer Lopez, IRTA. The Executive Co-ordinator, Dr Gina Lucci of AgResearch NZ, is responsible for promoting, planning, co-ordinating, monitoring and evaluating the activities of the partnership in collaboration with the Board. Since commencing her role in February 2017, Gina has travelled to Uruguay, Spain and Ireland to co-ordinate the development of the research programmes and activities, to exchange information and training, and to gain a better understanding of the strengths of each organisation and how they operate. In addition, Gina and some of the board members met with DG Research and Innovation (Bioeconomy Directorate), DG Agriculture and Rural Development (Research and Innovation Unit), the New Zealand Ambassador to the EU, and the Uruguayan Ambassador to Belgium in Brussels in September to promote the partnership and discuss funding opportunities.

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