



Future priorities for dairy research - an AgriSearch perspective

AFBI Dairy Conference
“Growth Through Innovation”



“Knowledge
provides the
base for all
progress”

-Paddy O'Keeffe



About AgriSearch

- Founded 1997
- Beef, Dairy and Sheep Levy Collected
- Provide a mechanism for farmers to have a direct involvement in agricultural research
- Funds used to commission research into the development and improvement of sheep, beef and dairy farming **and to disseminate the results**

Guiding Principles

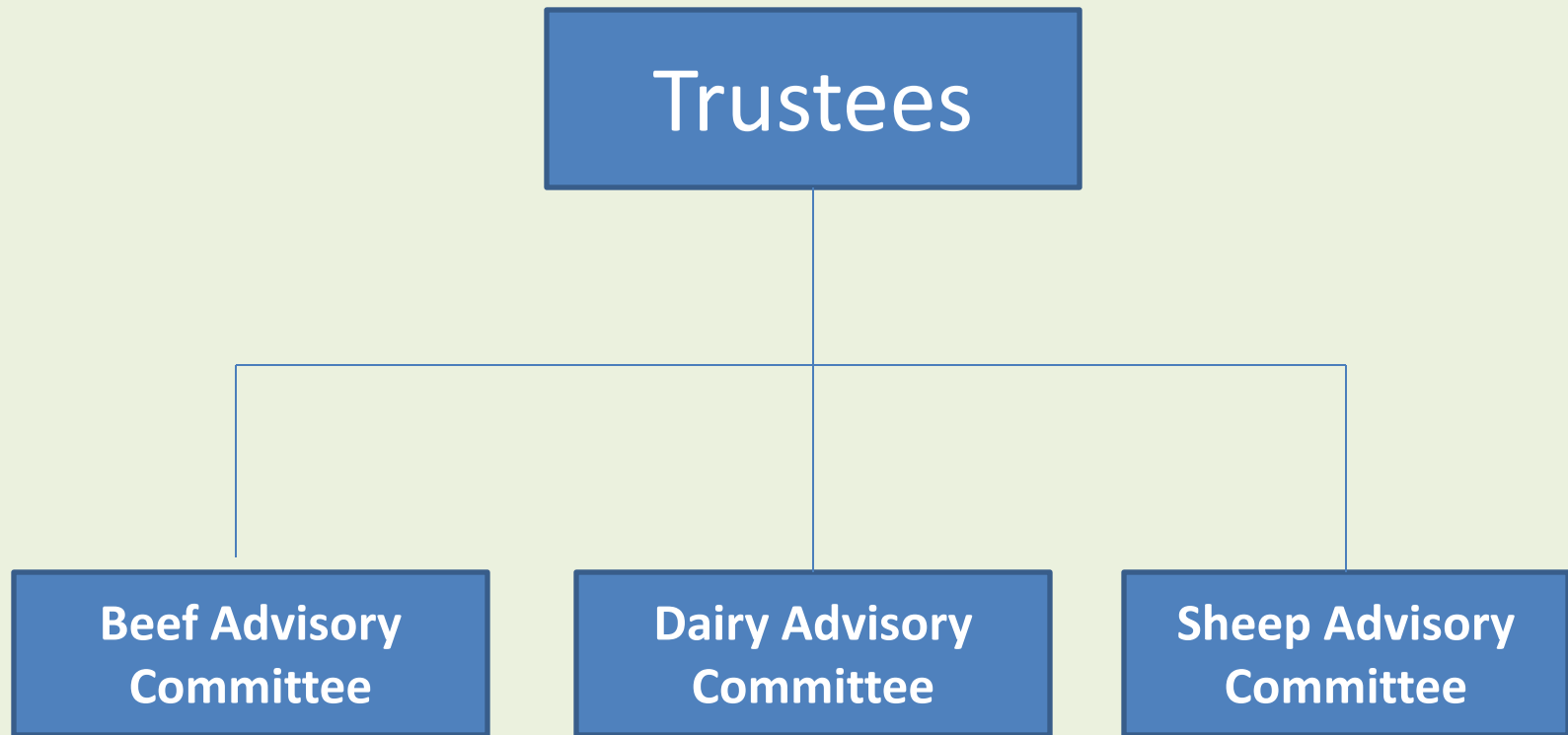
- Provide practical benefit for primary producers to -
 - reduce costs
 - improve performance
 - drive innovation
 - improve welfare
 - reduce environmental impact

“Sustainable Intensification”

Avoid duplication of existing R&D

- Appointed a Global Research Fellow
- Member UK Red Meat Joint R&D Committee
- Founder member European Cattle Innovation Partnership
- Maximise leverage from complementary funding sources
- **AgriSearch has a limited income**

Structure of AgriSearch



Increasing role for on-farm research

- AgriSearch is making increasing use of “farmer co-researchers” in research projects across all three sectors. Key benefits include:
 - Much greater numbers of animals at minimal extra cost – more robust data
 - Range of genetics, environments and farm management systems
 - Built in dissemination (farm walks etc)



"I Could do that!"

Getting the message out

In addition to farm walks AgriSearch employs a wide variety of means to disseminate the findings of its research:

- Website
- Ezine
- Press Articles
- Farmers Booklets
- Seminars and conferences



Financial Benefits of Research

- 2006 review showed that £1.3M of research investment by dairy farmers had a NPV return of £28.6M (£22.4M excluding 'public good') (5-10% adoption rate)
- An analysis on the benefits of sheep research showed a return of £39.18 for every £1 of industry investment (5% adoption rate).



Non-monetary benefits

- Improved negotiating positions – providing a scientific basis to the Nitrates Action Plan
- Reducing the environmental footprint of ruminant livestock farming
- Allow farmers to make informed decisions
- Improved animal welfare
- Improved farmer lifestyle



Some recent projects in dairy sector

- Transition Cow Study
- “Slow build-up” systems
- BVD Prevalence Study
- Setting of organic N output of dairy cows IN Northern Ireland at 91kg – approx. 10% higher stocking rate than GB
- GrassCheck
- Proving the benefits of calving down dairy heifers at 2 years of age

Dairy Farmer Survey

- Top areas:
 - Fertility
 - Animal Health and Welfare
 - Feed efficiency / nutrition
- Lowest Area
 - Environmental Impact / Sustainability

Survey Research Priorities

- Cow Fertility
- Animal health
- Animal welfare
- Cow longevity
- Feed efficiency
- Lameness
- Medicine use / resistance issues
- Milk quality
- Grassland productivity

Knowledge Transfer Methods

1. Farm walks / demonstrations
2. Farming press

Projects put forward for 2013-14

- Sustainable phosphorus levels for crop and livestock production
- Genomics and disease resistance
- The broader economic and environmental consequences of widespread adoption of anaerobic digestion technology
- Alternative protein sources
- Feed efficiency
- Nutrition in relation to health traits
- Soil structure / compaction

What needs to be done?

- ‘for our growth to continue, we need to see business, government and academia working in partnership to ensure Northern Ireland drives forward.....’
- ‘patience with research and development is vital.....’
- ‘focus for the future is on genomics as a key player in driving the industry forward’

Need for combined effort

- Inadequate resources are being channelled into agricultural research and knowledge transfer – seem to be always under threat
- Need for a combined effort by government, businesses, and scientists
- Opportunity to bring academia, research and technology transfer into one organisation
- Re-introduce university degrees in agricultural science – future production line of scientists

A resource for NI 'plc'

- Potential funding from outside NI for research
- 'Export' potential for research capability
- Should be a priority for investment
- AFBI agriculture branch is under-resourced
- AFBI has problems with overhead costs
- Recruitment of new scientists is an issue
- Short-term contracts (for researchers) don't help

Big picture

- The UK Foresight Report of 2011, while making a clear case for renewed investment in research and development, also stated:
- Investment in research and development is not enough in itself. Communication is critical – not just to spread new knowledge to policy-makers and potential users, but also to the public, specifically to engender trust in new science and its application.

Challenges and choices

- Do we want to be part of the big picture?
- Invest in our capacity – human capital and physical resources – to improve continuously

OR

- Muddle along towards inevitable decline