Breeding (Dairy and Beef) and other Efficiency Measures

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Talk Outline

- Understanding the impact of a variety of measures
- A number of Measures
What are we trying to do

- Reduce our emissions to meet national and international targets and reduce Climate Change
- Improve carbon footprint of output
- Get Credit for those reductions
- Improve profitability - Lower Costs
- Both Greenhouse Gasses and Ammonia

Emphasis has shifted
Carbon footprint → Emissions reduction
## Mitigation Actions

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What is The MACC

Series of Measures

• Can reduce GHG emissions

• Are possible to achieve

• With effort
EBI Impacts

- Improving fertility: - Fewer replacements and higher pregnancy rates
- Earlier compact calving - Greater proportion of grazed grass in the diet
- Higher milk solids yield per unit of grazed grass
- Improved health reduced deaths and disease
- Impact not measured directly
MRI Impacts (Maternal Replacement Index)

- Improved health and survival.
- Reduced mature cow maintenance feed requirements
- Shorter calving interval
- Impact not measured directly
Measure: extended grazing season

- Lower ruminant digestion emissions – higher digestibility diet
  - Grass v Silage
- Lower quantity of slurry stored
- Lower energy (fuel) emissions
- Higher milk solids – Improved protein content
Beef Improved live-weight gain

- GHG emissions “covered” by higher levels of beef output
- Shorter lifetime to slaughter – less emissions generated
- Will reflect in reduced average animal numbers
Nitrogen efficiency

- 15 – 20% of total systems emissions
- Improved Grassland Management and Nutrient Management to improve N Efficiency
- Soil Testing → Application of Lime and Management of P and K
- pH from 5.5 to 6.3 – Reduce N by 70Kg for same output
  - Better availability of N & P
- Better utilisation of Chemical & Organic N
- Some emissions associated with Lime applications
- Needs reduction in N Use
Clover in Swards

- Reduces N fertiliser requirement
- Multi-species swards
  - Animal Output ?
  - Drought Resistance
- Sward Yield
- Resilience ?
Improved Animal Health

- Range of Measures
  - Vaccination programme
  - Management of Lameness

- Focus on loss of output
Summary

- Variety of efficiency measures
- Some reduce emissions – some reduce footprint
- Reduce cost – Increase Income
- Difficult to regulate for or support
  - Cant support Cost saving in Agri-environmental Scheme
- Part of General Technical Improvement
- Key role for Advisers

“Every Little Helps”
Questions