



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

Emissions Reduction, Efficiency & Counting

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



Cleaning Our Air

Public Consultation to inform the development of a National Clean Air Strategy



Mitigation Actions

Action	Reduce GHG	Improve Footprint	Countable	Income

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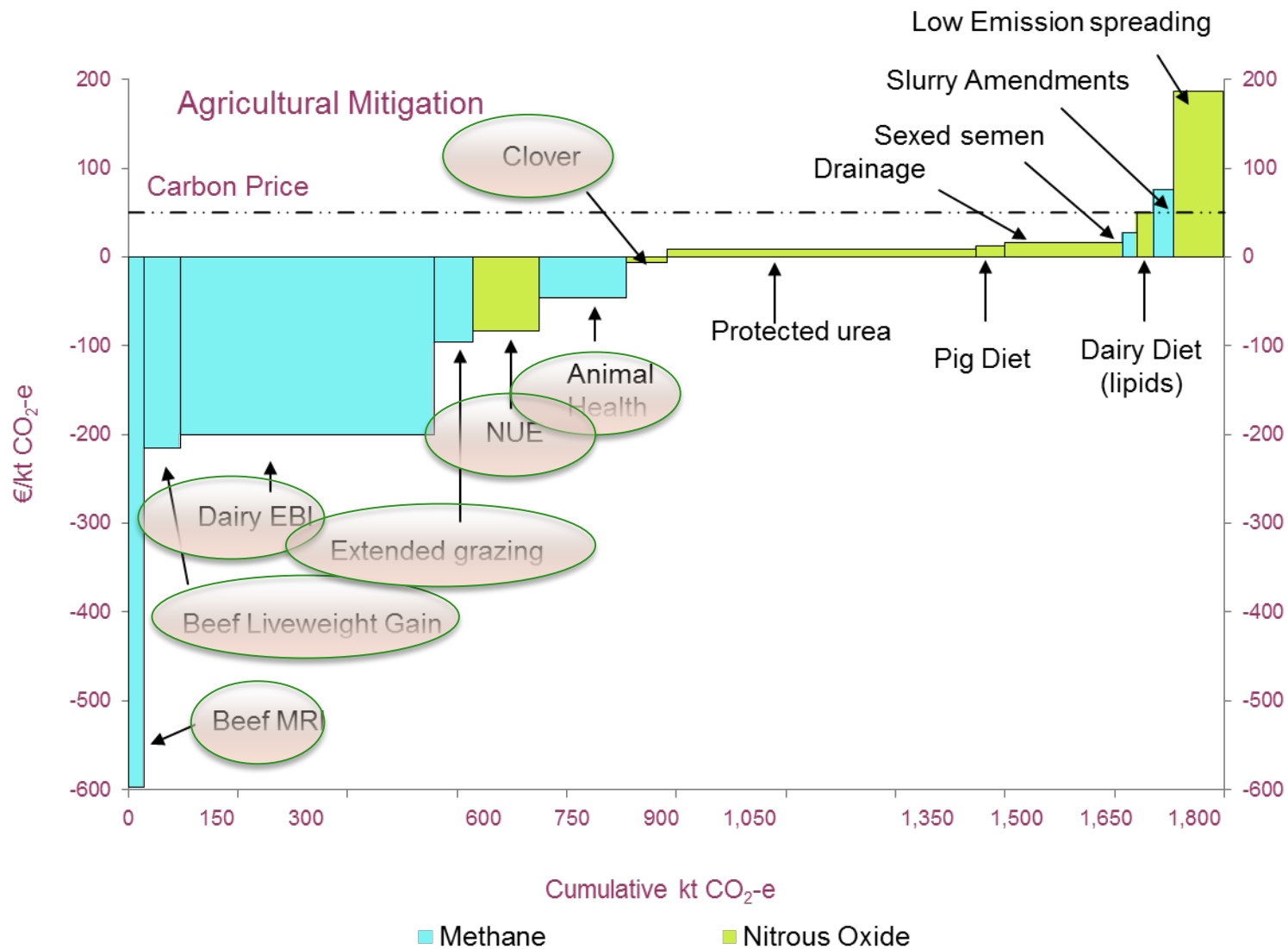
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Agricultural Measures



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

