Johnstown Castle winter-milk

Agriculture and Food Development Authority

Dairy Research Ireland
funded by Irish Dairy Farmers

Background

Requirement to ↓ carbon footprint of Irish dairy systems

EU Policy to ↑ protein self-sufficiency, currently = 78%

Methane reducing feed additives

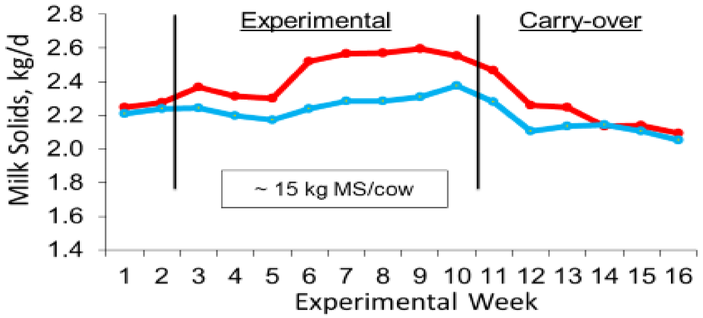
Field Beans

Rapeseed Meal

Home-grown protein sources

Home-grown protein sources

	Conv	Home
Milk yield (kg/day)	30.5	28.6
Milk protein (%)	3.57	3.50
Milk fat (%)	4.29	4.25
MS yield (kg/day)	2.38	2.20



Winter-milk herd profile

- 90 high EBI HF cows (€205)
- Calving begins ~11th Sept, completed by 1st Dec
- 6-wk calving rate 77%

Cumulative milk performance 2021/2022

Milk yield (kg)	7,669
Milk protein (%)	3.69
Milk fat (%)	4.37
MS yield (kg)	623
Concentrate fed (kg)	1,660

Methane reducing feed additive

	Control	Additive
Milk yield (kg/day)	29.6	29.9
Milk protein (%)	3.52	3.59
Milk fat (%)	4.62	4.63
MS yield (kg/day)	2.40	2.45
Methane (g/day)	448	335

~25% reduction in methane production

Take home messages

- Home-grown diets can reduce carbon footprint and increase protein self-sufficiency
- However, reduced animal performance observed
- Promising outcome for methane reducing feed additive