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Climate Neutral Farms

ClieNFarms Practice Abstracts

Reducing the age of finishing beef animals

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One of the main contributors to greenhouse gas (GHG) emissions in dairy-beef production systems (i.e. beef from the dairy system) is enteric fermentation during digestion during which ruminant animals release methane gas into the atmosphere. Methane emissions from beef cattle average 230g/day; thus, reducing finishing age by three months lowers emissions by approximately 19kg per animal.

Improving genetics of the herd will produce more efficient and profitable animals. Using the 'Age to Finish' trait in the Dairy Beef Index (www.icbf.com) allows the farmer produce dairy-beef animals that are more efficient and reach finishing at a younger age while not compromising carcass traits. There is a poor relationship between age of finishing and carcass weight, therefore each trait can be selected for independently and improvements can be made to both simultaneously. Early maturing breeds (e.g. Hereford and Angus) will reduce age at finishing compared to continental breeds (e.g. Charolais).

Nutrition plays an important role in reducing the age of finishing. Good grassland management on pasture-based farms improves the quality of the diet which increase intake and liveweight gain. During the grazing season animals should be offered pre-grazing herbage mass of 1200 – 1600 kg DM/ha (9 – 12cm) and during the housing period high DMD (dry matter digestibility) silage should be fed. As animals approach finishing the diet should be balanced for protein, energy and fibre.

Ensuring animals are healthy will result in efficient feed conversion to lean muscle, meaning animals can achieve finishing with less feed and time.



Figure 1 : Cattle on pasture.



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