

How to achieve results with a reduced slaughter age strategy



Teagasc regional manager Vivian Silke (left) and Jarlath Ruane on the Ruane's beef and sheep farm in Corbally, Co Mayo

Reducing the slaughter age of their beef animals has delivered impressive results for DairyBeef 500 participants Jarlath and Austin Ruane

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One of the strategies which will help reduce greenhouse gases is the reduction in the age of slaughter of animals on beef farms. The goal is a reduction of three months, from an average of 27 months back to 24 months.

This will generate a reduction in the quantity of methane emitted from the national beef herd of as much as 19kg per animal over their lifetime. Because methane is a much more damaging greenhouse gas than carbon dioxide this would be a significant and valuable achievement.

DairyBeef 500 participants Jarlath and Austin Ruane, who operate a dairy calf to beef and lowland sheep system in Corbally, located just outside Claremorris in Mayo, have achieved a considerable reduction in the slaughter age of their animals in recent years.

In 2020 the average slaughter age

for animals on the farm stood at 26.7 months. Last year, the average slaughter age had dropped to just over 24 months. No single factor caused this reduction; instead, it was driven by a combination of small adjustments to the farm system.

Calf sourcing

“When we first began dairy calf to beef in 2016 we didn't place great emphasis on the source of our calves,” says Jarlath. “At the time we were happy to purchase a calf at a price that we considered ‘cheap’, but when animal performance data was analysed, the weight for age and carcass weights we achieved at slaughter were considerably behind where they should be.”

The increased costs associated with keeping these animals to greater ages to meet factory specs, and the reduced carcass weight being achieved, meant that the profitability of those animals was less than their comrades with superior genetics.

The genetically inferior animals also left behind an increased environmental footprint due to the fact that they

were being kept into a third grazing system. “We soon started paying much greater attention to a calf's genetic makeup,” adds Jarlath.

Calf rearing

In the current system calves arrive on the farm at approximately three weeks of age. They are fed on an automatic milk feeder until they reach their targeted weaning weight of 85-90kg, generally at 55-60 days.

From arrival, calves are introduced to a highly palatable calf nut to start the rumen development as previous issues with summer scour syndrome have been experienced on the farm in the past.

“Generally, by weaning calves should be consuming over 2kg of concentrates per day to prevent any growth check as they transition from milk to solid feed as they move from a pre-ruminant to the ruminant phase,” says Jarlath.

“Calves are kept on this level until turnout and when they are first let out to grass they are put out to stronger covers in a paddock close to the farmyard. That's just to have an extra bit of fibre and the grass isn't too lush which prevents any potential issues with summer scour.”

This year's poor weather means concentrate supplementation has been maintained right throughout the summer to ensure performance.

Animal health

As with all livestock production systems, animal health is one of the main factors underpinning performance in dairy beef systems. An unhealthy animal will prove costly in terms of veterinary treatments, but will also have reduced daily gains. As mentioned earlier, sourcing a calf with high genetic merit is important. Equally important is sourcing a healthy calf.

“During our initial venture into calf rearing, animals came from a number of different sources with the 50 calves purchased in 2019 having come from 26 different sources including dealers and marts,” says Jarlath.

This variety brought about its own issues with an outbreak of scour and pneumonia occurring. Many of those calves suffered growth setbacks from which they never really recovered.

“This incidence of disease led us to begin purchasing directly from local farms,” says Jarlath. “The short journey is less stressful and reduces the risk of a potential disease outbreak. Reducing the number of calf sources has also had a highly positive effect on the overall herd health. We have less disease and higher performance during the calf rearing phase.”

The Ruane's now have a herd health plan which includes an intranasal vaccine to protect against RSV, and Pi3 is

administered as well as an oral drench against coccidiosis. At turnout, calves are given a vaccine against black leg with a follow-on booster given after four weeks.

Calves are monitored for parasites, and faecal sampling is carried out regularly. If counts exceed 200 eggs per gramme a dose is administered. Sheep are grazed behind calves early in the year and this helps reduce the egg burden.

Grassland management

The Ruane's place a big emphasis on grassland management and are seeing the rewards in terms of improved animal performance. The grazing infrastructure is extremely well set up with the entire farm been serviced by an extensive network of paddocks, water troughs and roadways.

“Our target cover is approximately 1,400 kg DM/ha for older stock all year around as this is the cover at which we feel animals perform best,” says Jarlath. “Paddocks are set up to be grazed down to 4-4.5cm in a day. Tight grazing to this level ensures the highest quality of grass regrowth. We aim for slightly lower covers of 1,000-1,250 kg DM/ha or approximately 7-8cm for calves.”

The farm is walked weekly to assess grass covers and this assists in

making management decisions and taking corrective measures if needed to ensure quality grass is kept in front of stock at all times. Where surpluses arise Jarlath wastes no time taking it out as baled silage to provide high quality winter feed.

Silage quality

The Ruane's also prioritise high quality silage to maintain performance over the winter months. Last year, the first cut was harvested on May 14 and this crop had a DMD of 76.7 which is capable of achieving a target 0.6kg/day of weight gain on weanlings over the winter months.

Drafting for slaughter

During the finishing phase, cattle are regularly monitored and they are drafted once the desired fat score of a 3 is achieved. At that point, the carcass weight potential of the animal is maximised.

Putting animals into any higher fat cover levels reduces their efficiency significantly in terms of average daily gain and also increases their environmental footprint.

“Overall, the reduced age of slaughter, approach has proven a win-win strategy for us,” says Jarlath. “Herd profitability has increased and methane emissions reduced.”

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Health and Safety Authority

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Examples of workplaces and activities include:

- Farms
- Construction sites
- Road maintenance
- Forestry & other land based industries

**Health and Safety Authority
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From 20 November 2023 all such operators must wear appropriate head protection while operating a Quad Bike (ATV).

We advise quad bike (ATV) operators to seek out and successfully complete the level 5 QQI/or equivalent required training in advance of the legal deadline.

All operators of Quad Bikes (ATVs) are encouraged to undertake training as soon as possible and to wear appropriate personal protective equipment particularly a Quad Bike (ATV) helmet as recommended by the manufacturer or identified through risk assessment.

We advise all concerned to contact your local training providers to plan their training requirements.