Farming Connect Management Exchange

Kirsten Hoggard

Ireland

What can I do to avoid unwanted dairy bull calves in a grazing system in West Wales?

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1 Introduction and Objectives

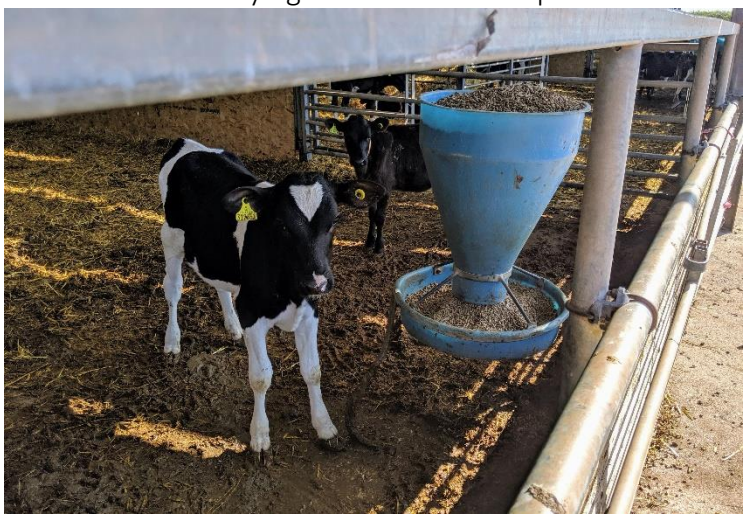
I work on a mixed enterprise organic farm in West Wales, running 350 dairy cows and followers on a grass based Autumn block calving system and we currently had the moral dilemma of finding a place for male dairy or surplus dairy cross beef calves in the business. I wanted to use this project as an opportunity to explore different options, turning these animals from a wasted product into an asset to the farm business adding value to each cow's lactation.

I chose Ireland as good place to base to do this research as they have a similar climate and farming structure to our farm, with grass being at the heart of most of their dairy farms. They are literally very knowledgeable in their field! Furthermore there is a direct link between drystock farms and dairy herds, as there is a big market for dairy born calves that are born on dairy farms in the spring then sold onto to drystock farms whose sole focus is on rearing and making money from these 'biproducts' of the dairy industry.

2 Itinerary

Day 1: Chris James, Claire and Aimee Stackpole, Pembrokeshire

I started the trip by visiting Chris James' great example of a block calving calf rearing unit in Pembroke on my way to the Ferry. Ran by calf rearers Claire and Aimiee who were kind enough to give us a tour of their purpose built sheds that help to ensure optimum health and performance. These open fronted cattle sheds have no concrete floors, for better drainage and good hygiene is achieved by liming then adding 6inches of sand topped with straw and told us the importance of the calves lying in straw not on top of it.



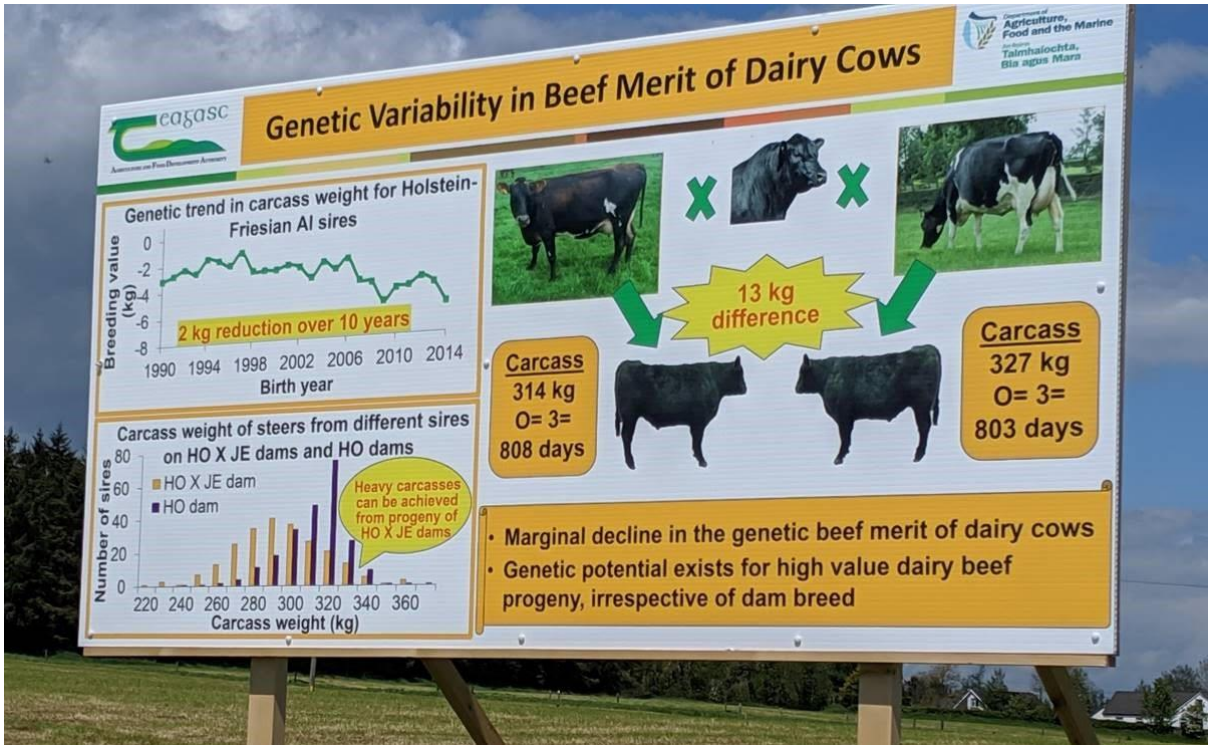
Every Spring they rear in the region of 900 calves, the bulk of which come onto the unit within a 2 month window. Therefore a streamline robust protocol in how to care for these calves has became essential and an emphasis on good preparation was a key to their success season after season. Key points I took away with us was putting fresh calves into groups of 5 or 10 from the first day, a way of being more time efficient as well as the calves often being stimulated more to suck from being with other calves. Giving calves adlib colostrum for the first three days then gradually moving them onto yogurt and then at three weeks old replace the yogurt with a once a day milk replacer. By that time calves cake intake to be at 1.5kg per day and the calves to be on the once a day replacer at 1.5 litre per calf and you would aim for a growth rate of 0.8 kg per calf per day. When they reach 80kg, roughly at week 7 they are weaned and normally turned out to grass and still fed 1.5kg- 2kg of 18% protein cake which is gradually decreased out of their diet.

They also took the time to show us the different practicalities of transporting milk around the unit to the calves, relying on motorised trollies that help them save time and labour, I decided that these could be very useful to us!

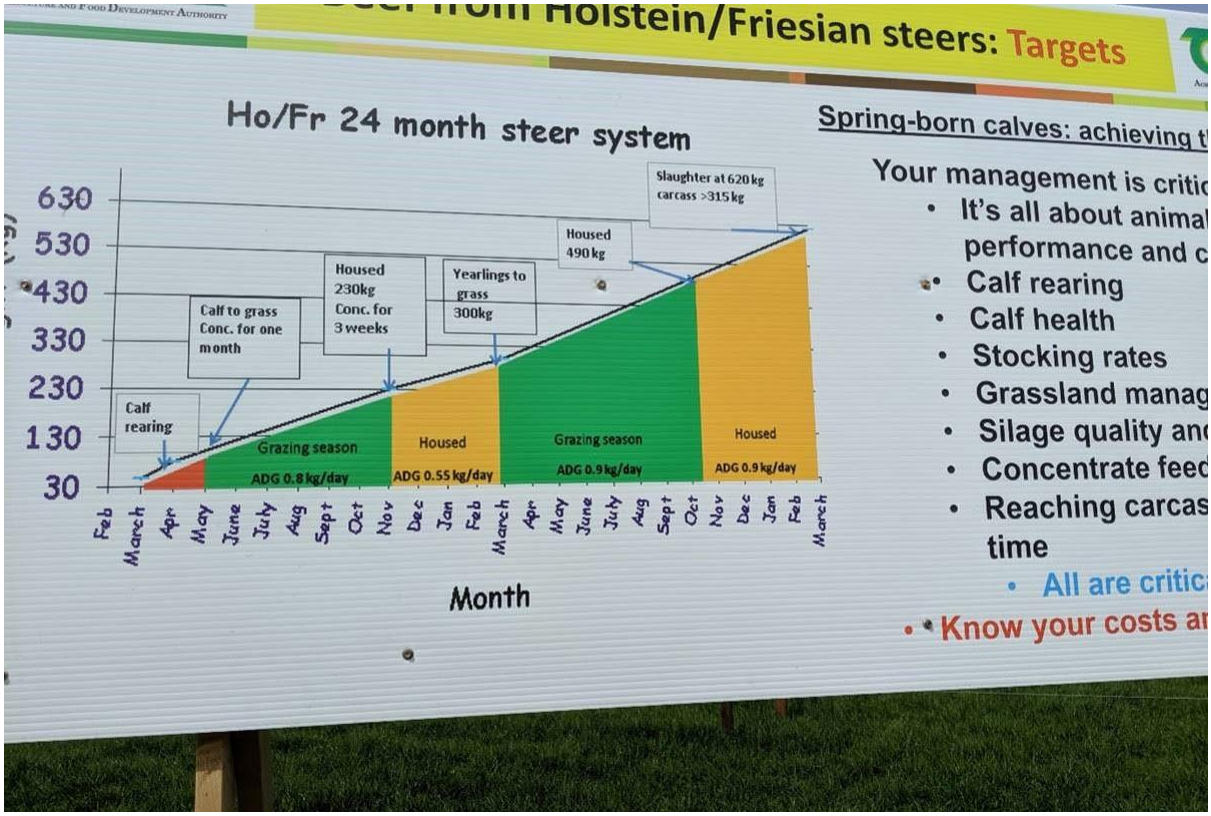
Day 2: Dairy Calf to Beef Open Day, Johnstown Castle, Wexford

I was now in Roslare ready for the main purpose of my trip, to attend the dairy calf to beef open day that had been organised by Teagasc, Ireland's Agriculture and Food Development Authority. The open day had a real focus on improving efficiency behind the farm gate, something I have a willingness to learn about. They put an emphasis on better management of grass on drystock farms, utilising every blade to increase profit in rearing and fattening beef animals .

They also had helpful information for dairy farmers on using high index bulls in the dairy herd, looking at beef traits when selecting animals for conventional AI service to ensure that you have a saleable carcass in their offspring and maximising terminal progeny by using high index beef, to get better quality, better performing calves. A common industry problem, is that the focus of beef sire selection (especially with Angus bulls) has been solely based on calving ease. This means an animal is bred without confirmation that can sometimes never make a grade when it comes to fattening them, making them worthless. 'Genetics create the potential; management realises the potential'.



I learnt about the pros and cons of different finishing systems, with a focus on profitability on finishing ages. It was interesting to compare the difference between intensive 18- 19 month type finishing systems to more extensive 24 month systems, a decision to make taking into consideration the type of animals you have (for instance beef bred heifers are easier to fatten at 19 months on a relatively low amount of concentrates compared to a steers that suit a more extensive grass based diet to allow them to grow before a better feed to fat conversion at 23/24 months old.



But for any system you run their take home message was to plan and know your performance targets, to use technologies such as grassland management and weighing to monitor progress. And to focus on output per hectare from pasture base systems to help ensure success.

Although unfortunately they didn't do much research into Autumn calving systems there was some helpful insights on how to utilise grass in beef animals diet as a comparatively cheap feed. But its important to know your costs and monitor your progress and they really drove home the message that your management is critical; the importance of the early days of the calf's life as any health problems can have a massive impact on their end result.

Day 3: Stephen Butler Clonakilty College, Clonakilty, Cork
Andrew and Leanie Workman Dunnary Farm Co Louth

Clonakilty were really helpful in discussing what roles sexed semen can play in the dairy industry, looking at both the positives and negatives. Some of the positives we talked about were using sexed semen to help streamline heifer rearing by only breeding replacements from the 'best' cows to help accelerate genetic gains. A really helpful tool in expanding herds, without jeopardising biosecurity. And then by being able to breed a larger percentage of the herd to beef, potentially make more money from the increased beef output. On the other hand we talked about the 'drift' calculation, the financial loss caused by the percentage loss of conception that currently is estimated being only 45% conception rate of conventional semen (however the rapid increase in technologies this gap is getting smaller) the drift calculation takes into account days of milk lost by the cows that don't hold to sexed semen, making it currently quite an expensive way of getting replacement heifers.

Although we could try and minimize this loss by increasing submission rate to counteract the loss of conception, Stephen Butler Clonakilty College suggested serving heifers earlier to sexed as less impactful on the milking herd if they didn't catch first time round and makes the most of the most advanced genetics on the farm by breeding from what should be the best

bred cows on the farm. And also exploring different synchronisation techniques could be helpful in getting the most out of sexed semen.

In the afternoon I attended an organic farm walk that looked into different methods of growing crops, including growing legumes and clovers in a rotation to put nitrogen and green organic matter back into the soil. They also gave recommendations on establishing crops organically by using different 'fine rake' cultivation methods. This I found Andrew's insight into caring for the soil and getting the soil into the best condition possible to allow the crop to utilise nutrients more effectively, increasing yield without any artificial fertilisers, pictured left is spring barley grown on the kinder, better land of the field to try and give it the best chance and on the right is rye that grown on the less fertile drier land as it is a hardier crop and would still perform well and could actually become too tall and 'lodge' or fall over on the other soil type, making it impossible to harvest.

Any techniques to increase on farm forage production allows the farm to increase stocking rates, this helps to increase profitability per hectare.

Day 4: Teagasc, Grange, Dunsany, Co. Meath and Farms in the Meath County area

I spent my last full day in Ireland I spent with some the Teagasc team, in the morning I spent some time with David Argue Green Acres Calf consultant, who under his care had 15 farms that were undertaking the project. Each farm of different sizes bought in spring born calves from dairy farms (a mixture of beef and dairy calves) then after the initial rearing indoors for the first two months turned them out in the May and followed a strict grazing rotation. Done a way similar to a lot of dairy grazing platforms, the farmer went out and measured the grass in each paddock to work out their 'grazing wedge,' then allocating 3% of the bodyweight of each animal as their daily demand, working out how much grass each group of animals would need, and potentially taking some silage from surplus grass stocks. They tended to put first year calves into paddocks for the first two days then followed by the yearlings to 'clear up' and get the grass back to optimum tillering stage. Most farms then tended to have a second housing period in the calves first winter, followed by another grazing period where some farms finished off grass at around 500kg in the October but most had the facilities to housed for an extra few months at the end to finish at 620kg. I found this really helpful and the farmers in the project had already seen the gains from managing their grass better in growing more better quality feed for their animals.

Then I spent the afternoon at Grange Farm research centre and had a look round their research into using different index bulls and calves on a pasture base system, whose aim of the project was to put a financial figure on the difference of using high index angus vs low index angus. This project was still in its young stages but I look forward to hearing about their results!

3 Next steps

I evaluated where I could make changes and came up with an action plan:

- Streamline calf rearing through group rearing and purchase of a motorised milk cart.
- Use sexed semen on heifers, identifying the best genetics and then serving earlier (with possibly using teaser bulls to try and increase conception rate) but going forward using more sexed semen before conventional to improve the quality of all livestock on farm.
- Considering the terminal index of the conventional dairy semen and keeping Holstein bull calves on an extensive low input system (following the Teagasc dairy calf to beef programme, using the grass rotation method) and keeping these animals organic to hopefully get a better price for them.

- Using high index bull semen, to ensure good quality beef animals and the calves that are born at the beginning of the calving block. Rearing these conventionally, to be able to sell to a wider market and to make use of a conventional unit linked to the family. Calves to go there at 5 months then be finished between 18-20 months.
- Utilise more effective ways of increasing forage production on an organic farm
- Biggest bonus was that I learnt more calf rearing practical skills that will hopefully improve my stockmanship!

Massive thanks to:
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Also thank you to Farming Connect for the opportunity.