Teagasc Advisory Newsletter

BEEF

October 2020

Tidying up BEEP–S tasks

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October is the month where many of the tasks in the Beef Environmental Efficiency Programme – Suckler (BEEP–S) will have to be tidied up if you are to get paid in the December payment run.

Weighing

Weighing of cows and their unweaned calves using a registered scale will need to be completed and submitted to the Irish Cattle Breeding Federation (ICBF) by November 1. For those of you submitting the weights online they can be uploaded quite quickly. If you are submitting weights on paper, allow yourself a bit of extra time to allow for posting. Remember the number of eligible cows and calves weighed will determine the number you will get paid on in the other tasks.

Meal feeding/vaccination

It is important that you adhered to the protocols laid down for meal feeding/vaccination. For these tasks you are not required to upload dates for vaccination or commencement of meal feeding. Approximately 5% of participants will be selected for inspection. If selected, you will need to produce purchase dockets for vaccines or meal. You will be required to outline dates for vaccination or dates of when meal feeding commenced and when calves were weaned.

Faecal egg test

Faecal egg tests must be carried out on cows and fresh samples submitted to an approved laboratory on or before November 1, 2020.These samples will be checked for the presence of rumen and/or liver fluke eggs. Once you get your results, you should check with your vet as to what the best dosing strategy should be. The Department of Agriculture, Food and the Marine (DAFM) will check directly with the approved labs to see if you have carried out this task.

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Reducing the risk to weanlings

Weaning and all that it entails is stressful on weanlings, but if well managed you can minimise the potential risks.

In addition to removal from the cow, the weaning procedure may be compounded by other stressors occurring around the same time, e.g., change of diet (grass and milk to silage with or without concentrates), change of environment (outdoors to indoors), and transport/marketing. Things you need to consider are:

- Can the weaning procedure on my farm be improved? Can cows be removed in batches over several weeks leaving weanlings outside? Are weanlings that are weaned indoors eating sufficient concentrates (1-2kg)?
- Will the weanlings be clean of internal parasites at weaning (stomach worms, hoose and fluke)? The degree of worm burden will depend on management, weather and previous dosing regimen. A heavy lungworm burden at weaning will increase the risk of pneumonia.
- How do I reduce the risk of pneumonia? Minimising stress around weaning is critical to avoid compromising the immune system. You also need to consider ways of minimising weanlings' exposure to disease. Good biosecurity, good housing and ventilation, along with the correct vaccination programme, will help give your weanlings the best chance against succumbing to pneumonia.

In summary, at weaning aim to reduce exposure to disease, minimise stress, provide adequate nutrition, parasite control, and timely and appropriate vaccination and/or treatment of animals.

HEALTH & SAFETY

Check lighting and electrical switches

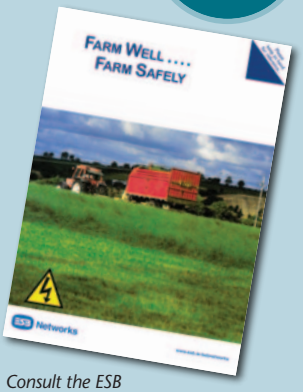
The clocks go back on October 25, which brings shorter daylight time. In advance of this, check your farmyard lighting.

Bulbs may need to be replaced and fluorescent covers may need cleaning to maximise light output.

To prevent trips and falls, make sure that all walkways are well lit and free of trip hazards. Also, safety test your electrical residual current devices (RCDs) on switchboards. An RCD is an electrical safety trip switch, which trips if an electrical leakage occurs.

A trip switch is mechanical and needs to be test tripped regularly to ensure it is working.

This is done by ensuring that there are no electrical devices operating and physically tripping the switch.



Consult the ESB Networks booklet: Farm Well Farm Safely.

Benefits of silage quality improvement

Aidan Maguire is a participant in the Teagasc Green Acres Calf-to-Beef programme and farms 46ha just outside of Navan, Co. Meath, where he rears 120 Friesian, Angus and Hereford calves. This year 90 spring-born calves and 30 autumn-born calves were reared. Previously all cattle were sold as stores but now Aidan hopes to increase his margins by finishing the heifers at 20 months and the steers at 24 months.

Having high-quality silage to feed to all his stock over the winter is an aspect of his calf-to-beef system, which he has always deemed very important. This is an ethos that has not changed since joining the Teagasc Green Acres programme and Aidan, along with the 11 other participating farmers, has been working on improving silage quality wherever possible.

Table 1: Silage quality and recommended meal supplementation rates for 2019 and 2020 on Aidan's farm.

	2019	2020	Difference	Aidan's winter stock numbers	Kg of meal saved over 120-day period	Cost saving (€270/t weanling ration and €240/t fattening ration)
Average DMD	73.25%	75.1%	+1.85%			
Meal feeding (kg/head/day) to weanling to achieve 0.6kg average daily gain (ADG)	0.75	0.5	-0.25	120	3.6 tonnes	€972
Meal feeding (kg/head/day) to fattening animal to achieve 1kg ADG	4.5	4	-0.5	80	4.8 tonnes	€1,152
Total cost saving						€2,124

Table 1 compares the silage quality and recommended meal supplementation rates for 2019 and 2020. As we can see, the relatively small improvement in silage quality of +1.85% DMD between the two years means that there is an opportunity to feed 0.25kg less meal/day to the young stock and 0.5kg less meal/day to the fattening stock to achieve the same thrive. When multiplied by Aidan's planned winter stock numbers and an estimated ration cost of €270/t and €240/t for weanling and fattening rations, respectively, the relatively small improvement in silage quality has the potential to reduce the meal bill by €2,124.

RESEARCH UPDATE

Increasing space allowance

Bernadette Earley, Mark McGee and Edward O'Riordan of AGRIC, Teagasc, Grange, Dunsany, Co. Meath looked at the effect of space allowance on the performance and welfare of finishing beef cattle.

The predominant housing systems used in Ireland are sheds with concrete slatted floors (CSFs), of which there are approximately 68,000 nationwide. Recently, there have been concerns regarding the welfare of beef cattle accommodated indoors, particularly in relation to space allowance (European Food Safety Authority (EFSA)). With regard to space allowance, there have been suggestions to increase the allowance per animal on CSFs to 3.0m^2 for a 500kg animal plus or minus 0.5m^2 per 100kg above or below this (SCAHAW, 2001). This equates to almost doubling the current space allocation provided to finishing beef cattle.

Research study

Continental crossbred heifers (n=240: mean initial liveweight 504kg (standard deviation (SD) 35.8kg)) were blocked by breed, weight and age and randomly assigned to one of four treatments for 105 days: i) 3.0m^2; ii) 4.5m^2; and, iii), 6.0m^2 space allowance per animal on a CSF. In the fourth treatment, 6.0m^2 space allowance was given per animal on a straw-bedded floor. Heifers were offered a total mixed ration *ad libitum*. To permit direct treatment comparisons within a single shed, the straw-bedded floors were created by placing a polypropylene geotextile membrane (Synthetic Packaging, Clara, Co. Offaly) over the CSF and the straw was placed on top of this free-draining membrane. The membrane was also placed on the surround of the pen enclosures to a height of 0.5m to prevent movement of the straw to adjacent floor treatments. The straw-bedded pens were replenished with un-chopped barley straw at a rate of 150kg per pen every three days and this was fully removed and replaced with fresh straw every two weeks. Soiled bedding in the straw-bedded pens was never higher than 25cm in depth.

Dry matter intake was recorded on a per pen basis and refusals were weighed back twice weekly. Heifers were weighed, dirt scored and blood sampled every three weeks. Whole blood was analysed for complete cell counts and serum samples were assayed for metabolite concentrations. Behaviour was recorded continuously using infrared cameras from day 70 to day 87. Heifers' hooves were inspected for lesions at the start of the study and again after slaughter. Post-slaughter carcass weights, conformation and fat scores, and hide weights were recorded.

Heifers housed at 4.5m^2 had a greater liveweight average daily gain (ADG) than those on both of the other CSF treatments; however, space allowance had no effect on carcass weight. Heifers accommodated on straw had a greater hide weight and greater dirt scores at slaughter than heifers accommodated on CSFs at 6.0m^2. The number of heifers lying at any one time was greater on straw than on CSFs. Space allowance and floor type had no effect on the number of hoof lesions gained or on any of the haematological or metabolic variables measured. It was concluded that increasing space allowance above 3.0m^2 per animal on CSFs was of no benefit to animal performance. Housing heifers on straw instead of CSFs improved ADG, although this finding was not reflected in carcass weight.

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