

THEME REPORT



MORAY MONITOR FARM Beef Monitor Theme Report

THE CHALLENGE

Most prime beef cattle and young bulls are sold deadweight. Recently many processors have reduced their maximum top weight for payment. This combined with the poor deadweight prices currently being paid, emphasises the pressure farmers are under to avoid out of spec penalties and improve livestock productivity and efficiency. Currently, most farmers estimate weight by eye, but an increasing number are regularly weighing cattle. However, it has been demonstrated that the stress caused by regular manual weighing slows down or even halts growth for several days to weeks afterwards.

At Corskie all autumn born young bulls from the suckler herd, and heifers and pedigree bulls not suitable for breeding are finished. Bulls are finished on an ad lib bought in ration plus hay and bedded on straw.

The Morayshire Monitor Farm management group decided to investigate the use of an automatic beef weighing system. The idea was to monitor a batch of young bulls over the finishing period to ascertain the optimal finishing strategy to minimise labour, feed and bedding costs and avoid penalties applied by processors for out-of-spec animals.

WHAT WE DID ON FARM

A Ritchie Beef Monitor system, costing approximately £4500, was set up at Corskie. The system is composed of a free access crate with a load bar weighing platform. It can record the weights of up to 50 animals in a group. Animals enter the crate voluntarily when drinking, and their EID ear tag and weight is recorded each time. This means that some animals can be weighed up to 12 times per day, so at the end of each day the weights of each individual are averaged, and the actual weight and daily gain are uploaded to the cloud-based storage. As a result, the weights are a combination of full and empty bladders and stomachs. Erroneous weight recordings resulting from animals placing only one leg on the weighing platform and lost tags can be identified and flagged up by the Beef Monitor system, resulting in increased accuracy. For a monthly fee of £25, the weight data can be accessed via the Ritchie website on a PC, laptop or mobile app.

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Although, the Beef Monitor system was set up within the sheds at Corskie, it can also be used at grass provided a suitable water source is available. In the field the system can be powered by solar panels.

Batches of 50 young bulls were followed through the finishing period at Corskie and the live weight information was compared to slaughter weights. The processor that Corskie supplies with finished cattle, pays up to a maximum 400kg carcass. With killing out percentages between 50 and 60%, the target finishing weight was 700 kg and an alert to flag up any cattle 100 kg off this was set up. This allowed cattle nearing the maximum required deadweight to be manually monitored for fat coverage to avoid any fat classification penalties in addition to the weight penalties enforced.

By monitoring live weights daily, it was possible to determine what effect any handling or management changes had on livestock performance and efficiency throughout the finishing period. In addition, any potential health problems can be recognised and treated rapidly by monitoring changes in daily live weight gain. The improved accuracy of the live weight measurements, permits more accurate dosing of any medications required, thereby preventing any issues with under- or over-dosing. In recent years there has been a rise of the incidence of anthelmintic and antimicrobial resistance, making it more important to use the drug groups we currently have available more appropriately.

RESULTS

All the bulls that have passed through the weighing system have adapted well, with weights for all individuals being recorded within the first 24 hours of introduction.

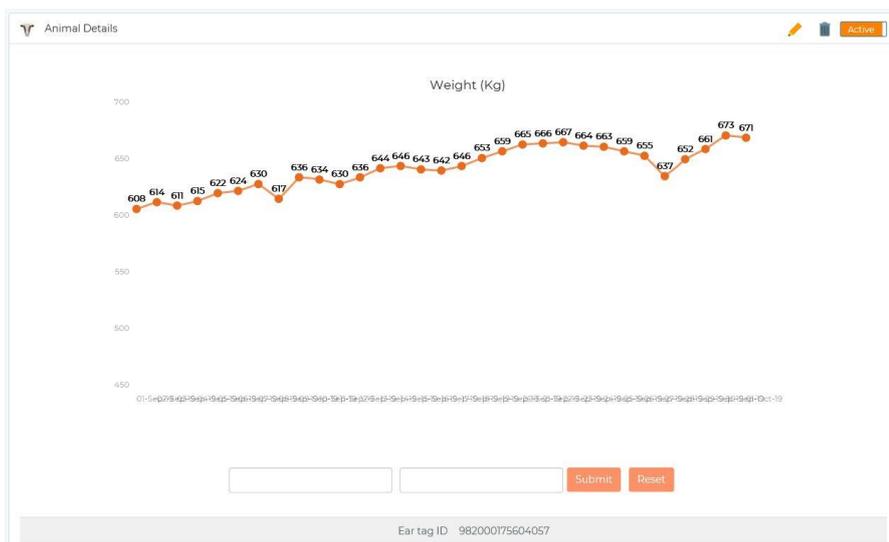
Since using the system, it has been noted that animals take between 7 and 10 days to put weight on again following handling for ultrasound measurement of fat depth and eye muscle under the British Simmental Cattle Society Breedplan recording system.

In an attempt to reduce feed costs, the Corskie team mixed the bought-in finishing blend of sugar beet pulp, cereal, maize, distillers' dark grains and minerals with home-grown cereals. However, the Beef Monitor system revealed that the whole pen did not gain any weight for two weeks afterwards. Therefore, counteracting any potential saving in feed costs. As a result, the bulls are now fed 100% finishing blend.

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The last batch of 50 bulls to be finished had an average daily live weight gain over 93 days of 2.16 kg. The highest recorded daily live weight gain over the finishing period was observed in a Simmental cross bull, with 2.73 kg/day, while the greatest daily live weight gain recorded in a Shorthorn cross bull was 2.37 kg/day.



A typical growth curve of a finishing bull at Corskie. This animal had an average daily live weight gain of 2.10 kg over 30 days. The dips in weight gain are due to handling events.

Average dead weight has risen from 376 kg to 399 kg since using the system, resulting in an extra 23 kg of value per beast. In addition, less overweight (400 kg dead weight) cattle are finished, which has resulted in reductions in weight penalties applied by the processor. Considerable savings in labour, feed and bedding costs have also been made. Not only does this benefit Corskie by maximising kilos of output but also the processor who has received a more consistent batch of bulls.

WHAT HAS CHANGED ON FARM

The trial proved successful and has led Iain Green to consider purchasing automatic weighing units for each pen of 50 animals that they finish at Corskie. Iain feels that the increased deadweight and reductions in weight penalties since introducing the system has more than paid for itself and justifies the cost of purchasing additional units.

In addition, the system has highlighted factors that can influence calf weight loss following weaning at 7 months. As a result, the weaning process at Corskie has changed so that the cows are shut out and calves are moved from the other farms to Corskie straight away.

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