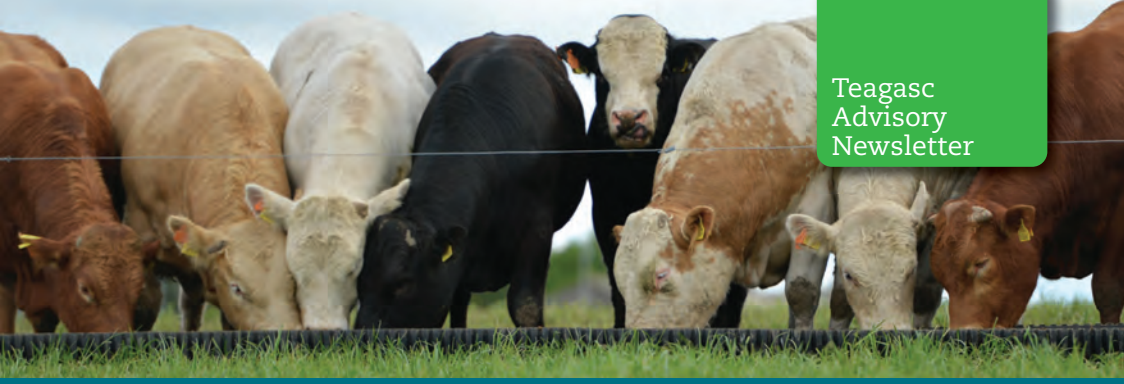


Teagasc Advisory Newsletter

BEEF

August 2015

Beef Data and Genomics Programme update

Edited by
James Keane,
Drystock Specialist

Your €uro-Star report will make it easier for you to make informed breeding decisions.

ICBF is sending all participants in the Beef Data and Genomics Programme (BDGP) a BDGP €uro-Star report in relation to their individual herd. This report will outline the following information to the applicant:

- number of suckler calf births in 2014;
- number of 4/5-star females required on October 31, 2018, and October 31, 2020;
- current €uro-Star rating of stock bulls on your farm; and,
- current €uro-Star rating of cows/heifers on your farm.

Most farmers will have encountered €uro-Star ratings when purchasing

In this issue

Teagasc
Agriculture and Food Development Authority

a stock bull at a pedigree sale, but may not have much knowledge of the €uro-Star rating of their own cows/heifers. This report will give you valuable information and rate your cows/heifers from 1-Star to 5-Star on the Replacement Index. This will help you to identify your better breeding females and make it easier for you to make informed breeding decisions to meet the requirements of the BDGP.

Table 1: BDGP key figures.

- 29,123 herds and 641,000 cows in BDGP 2015
- 79% of herds in BDGP 2015 have eligible stock bull
- 4/5-Star females – 61% of herds comply with 2018 requirement
- 4/5-Star females – 37% of herds comply with 2020 requirement

Building autumn grass

From late July it is advisable to start building up grass covers in order to extend the grazing season. As grass growth rates slow down so does the rate of sward die back, so that a much longer period between grazing can be tolerated without loss of quality. Trials show that starting with bare paddocks on September 1, there was no loss in feed quality at a growth interval of up to nine weeks, which would mean the paddocks that were grazed in late August and closed would still have high-quality grass in mid-October. Therefore, even if you have plenty of grass at present, say about 20 days ahead, you should still spread some nitrogen on fields as these are grazed out. On farms where there is surplus grass, simply graze the fields with the heaviest covers in rotation. Obviously, if stocking rates are low, or if you have good clover swards, there may be no need for nitrogen.

The response to nitrogen will be economical in August but declines rapidly in September. In any case, under nitrates regulations, nitrogen cannot be applied after September 15. The best response will be on land that was cut for silage and where there is a high proportion of ryegrass that did not recently get fertiliser. Land that only got slurry after silage will need nitrogen, as the amount of nitrogen supplied in the slurry is small (6-10 units/2,500 gallons). This would have given an initial boost but these fields are now nitrogen deficient.

HEALTH & SAFETY

Safety with livestock

Safety with animals, particularly bulls and cows, is paramount at this time of year. With bulls it is widely believed that attacks increase as the breeding season closes. However, over the past five years, cow attacks have exceeded bull attacks. Bulls at pasture should have a ring and a trailing chain. Always keep a bull in your field of vision and have an escape route planned, or a mobile sanctuary available, such as a tractor. Now is the time to consider winter housing of bulls and facilities for calving cows. TAMS 2 provides grant aid for installation of facilities.

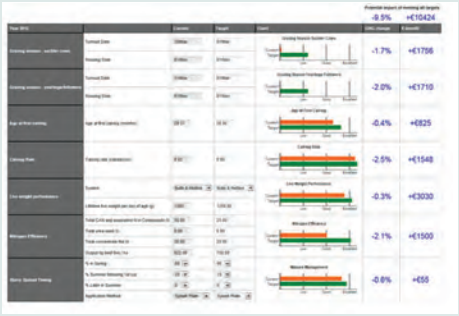
RESEARCH UPDATE

The Beef Carbon Navigator

From Paul Crosson, Teagasc, Animal & Grassland Research and Innovation Centre, Grange, Dunsany, Co. Meath.

The carbon footprint of any product is the quantity of greenhouse gas (GHG) emissions generated in the production of a unit of that product. In the case of beef, the carbon footprint is the amount of GHGs generated per kilogram of beef produced. GHGs generated in the production of beef are from four primary sources: feed digestion in the rumen of livestock; manure storage/application; application of nitrogen to pasture; and, GHGs generated in the production of inputs (feed, fertiliser, etc.) used on the farm. The Carbon Navigator was developed by Teagasc and Bord Bia to assist farmers in identifying measures to reduce the carbon footprint of beef produced on their farms, and to achieve these reductions while improving farm profitability. The completion of the Beef Carbon Navigator is a core requirement of the Beef Data and Genomics Programme. In developing the Programme, ease of use and minimal data entry was an important consideration. The Programme requires users to describe the current performance on their farm and then to assess what level of improvement is possible/likely in the following three-year period. The measures included are:

- extending the grazing season – this reduces GHG emissions by reducing slurry stored and increasing the consumption of grazed grass;
- reducing age at first calving for replacement heifers – this reduces the amount of GHG produced prior to the heifer calving for the first time;
- improving the calving rate of suckler beef cows – this reduces the carbon footprint by 'diluting' GHG emissions over a greater quantity of beef;
- increased animal performance – this improves average lifetime daily gain and reduces age at slaughter; therefore, GHG emissions are diluted over greater output of beef;
- improving nitrogen efficiency – this reduces direct nitrogenous losses to the atmosphere, and also indirect emissions associated with the production and distribution of the fertiliser; and,
- improved manure management: spreading in spring rather than summer and low emissions application methods reduces ammonia (an indirect source of GHG) emissions.



Example of output from the Beef Carbon Navigator.

Meal feeding

Weanlings – If you plan to sell weanlings, then it will generally pay to feed meal before sale. The response to meal feeding depends on grass supply and quality, weight, age, sex and breed. As the maintenance requirements of young cattle are lower, the liveweight response to meal is somewhat better, especially to a low rate of meal. The best chance of recovering the cost of meal is where it is fed immediately prior to sale. It is also worth remembering that buyers do not want over-fat weanlings and will discount the price. General meal feeding guidelines are:

- for well-muscled bull weanlings, suitable for export: 2.0-3.5kg/day;
- for other continental bull weanlings: 1.5-2.5kg/day;
- for heifer weanlings, suitable for export: up to 2.5kg per day;
- for other continental heifer weanlings, about 1.5kg per day; and,
- for non-continental heifer weanlings: 1-2kg/day.

Trough feeding allows the exact quantity to be fed daily and the lower rates are fed where there is plenty of good grass available.

Finishing stock – These cattle need to be kept performing at a minimum of 1kg liveweight per day. Even the best autumn grass is not capable of providing such a level of gain. Leafy autumn grass has a dry matter of about 14%. A finishing steer of 700kg is expected to consume 2% of its body weight in dry matter (i.e., 14kg DM) and so would need to eat 117kg grass in a 24-hour period to satisfy its nutritional requirements for body maintenance and a gain of about 1kg/day.

Response to meal feeding depends on grass supply and quality, weight, age, sex and breed.

This is too much grass to consume even under favourable grazing conditions. Furthermore, as cattle move into the final finishing phase they require a diet of increasing energy. Grass alone in the autumn cannot provide the energy to give a liveweight gain of over 0.8kg per day. Therefore, even in the best conditions, meal is needed to get the liveweight gain up to 1kg/day or slightly better. This would require meal supplementation of about 3.5kg per day.

Feeding trials on autumn grass indicate a good response to feeding 0.5kg meal per 100kg liveweight (i.e., 3.0kg/day to a 600kg steer) when grass is scarce or of moderate quality. Therefore, with good grass, feed at least 3kg/day, and where grass is of limited supply or quality is less than excellent, you should go to 6kg/day. Once you have to go above 6kg/day, it may be as well to go indoors on an *ad lib* concentrate diet.

Autumn grass has excess protein in the order of 22% and therefore meal does not need to be high in protein. In fact, high energy, low protein concentrates are the ideal supplement for autumn grass. Minerals are not required for short-term feeding of cattle. However, where there is a known mineral deficiency, or where high levels of concentrates are fed, minerals should be included.