Calves should have access to high quality grass.

Teagasc Advisory Newsletter

BEEF

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Preparing weanlings for sale

Introduce concentrates two months before you plan to sell your calves. The response to meal feeding in weanlings is 6:1, as opposed to 12:1 in two-year-old cattle. Financially, creep feeding has proven to be economically viable and the best chance of recovering the cost of meal is when it is fed to young weanlings that can convert it quickly into live weight gain.

Many farmers put in place a creep gate where calves have access to a trough and you have control over the amount of meal fed per calf. Another option is to raise a short distance of electric wire and allow calves to forward graze better quality grass ahead of cows and feed concentrate in troughs. Either way calves should have access to top quality grass, start on 0.5kg of concentrate per day and build up to the rates below:

- well-muscled bulls suitable for export: 2-3.5kg/day;
- other continental bull weanlings: 1.5-2.5kg/day;
- heifer weanlings suitable for export: 2.5kg/day; and,
- other continental heifer weanlings: 1.5kg/day.

A simple three-way mix ration with crude protein of 16% is adequate and where grass quality is good, feed at the lower levels stated. Bull calves have the potential to achieve 1.4kg/day and heifers will achieve 1.3kg/day assuming good grass quality.

Calves should be treated for lungworm prior to weaning as the stress could lead to problems when not treated. Weaning should be carried out gradually by removing a small number of cows

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In this issue

Teagasc
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from the field/herd every two to three days. Weigh your stock and check out the local mart to know their value.
Calves weaned weeks before sale should be housed on straw the night before sale and if possible have access to hay. This is to prevent calves coming fresh off grass the morning of the sale. Calves should be clean, well presented and grouped for sale by weight.
Remember the trade can vary week to week so diversify and don't bring all your calves on the same day.

Finishing cattle off grass

Finishing cattle need to be kept performing at a minimum of 1kg live weight per day and as they 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 live weight gain of over 0.8kg per day. This means even in the best conditions, meal is needed to get the live weight gain up to 1kg/day or slightly better. Therefore with good quality grass, feed at least 3kg of meal a day and where supply is limited or quality is less than excellent you should go to 6kg/day. Once you have to go above 6kg per day it may be as well to go indoors on an *ad libitum* 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.

Beef Data and Genomics Programme – Carbon Navigator

Farmers participating in the BDGP must get their adviser to complete a Carbon Navigator before October 31, 2016. Contact your local Teagasc adviser to book an appointment. They will complete this free of charge for BDGP participants. See enclosed newsletter.

Extending the grazing season starts now

You must put a simple plan in place now to have good quality grass available in October. Under Nitrates regulations, nitrogen cannot be spread after September 15. In any case, response to nitrogen declines rapidly in September. On heavily stocked farms continue spreading nitrogen as paddocks are grazed out up until the end of August. This will ensure high quality grass into mid October. Even though you currently may have 20 days'

Plan for grass availability in October now.

grass ahead, which is fine for now, keep spreading nitrogen as the length of rotation will increase to 35 days from mid September. From mid August, do not take out heavy covers as bales. Try to get these grazed out in the rotation and spread nitrogen afterwards. Lime is a first step in tackling soil fertility on all drystock farms and Irish farmers tend to spread lime in the autumn. Teagasc Johnstown Castle has just released an excellent fact sheet called 'Advice on Liming'. This explains the different types of lime, how much to spread and the benefits of spreading lime.

This fact sheet can be downloaded at www.teagasc.ie.

HEALTH & SAFETY

Remain vigilant around machinery

Getting knocked down or crushed by a farm vehicle or machine continues to be the dominant fatal farm accident in 2016.
Of the eight farm deaths that have taken place so far this year, six have been related to this cause. August is a busy month for machinery usage so high vigilance is needed when near machines.

At the National Ploughing Championships in September 2016, the Health and Safety Authority, in association with the Farm Safety Partnership, is planning a farm health and safety village exhibit.
Spending some time at this exhibit will update your knowledge on current health and safety matters.

Maintain safety vigilance around machinery.

RESEARCH UPDATE

Finishing with palm kernal

Mark McGee, Edward O'Riordan and Aidan Moloney of AGRIC, Teagasc, Grange report on inclusion of palm kernel expeller meal in barley-based concentrates for beef cattle.

Palm kernel expeller meal is a by-product of palm kernel oil production, obtained by mechanical extraction of palm kernels. Intake and performance of late maturing crossbred steers (initial live weight 460kg) offered a barley-based ration with increasing levels of inclusion (e.g., 0, 10, 20, 30 and 40%) of palm kernel expeller meal as a supplement to grass silage ('growing phase') and, subsequently, to appetite ('finishing phase') were evaluated at Teagasc Grange.

The barley-based 'control' concentrate was comprised of 862g/kg rolled barley, 60g/kg soya bean meal (SBM), 50g/kg molasses and 28g/kg minerals/vitamins. The other four concentrates of rolled barley and soybean meal, 80g+20g, 160g+40g, 240g+60g and 340g+60g, were replaced with 100g, 200g, 300g and 400g palm kernel expeller meal/kg fresh weight, respectively.

The crude protein (CP) and fat concentrations of the palm kernel expeller meal were 158 and 72g/kg dry matter (DM), respectively. Steers were individually offered 3kg DM of the respective concentrates as a supplement to grass silage (640g/kg DM digestibility and 126g/kg DM CP) offered *ad libitum* during a 71-day growing study. At the end of the growing study, animals were offered silage only *ad libitum* for 21 days, and then reassigned to one of the same five concentrates.

Following a 29-day dietary adaptation period, concentrates were offered *ad libitum* plus 3kg silage (fresh weight) daily for a 70-day finishing study.

During the growing study, DM intake was lower for palm kernel meal 200g and 400g compared to the other concentrates, whereas average daily gain (ADG) did not differ between the concentrates. During the finishing study, there was no effect of concentrate type on DM intake, whereas ADG and slaughter weight declined with increasing palm kernel meal inclusion.

Carcass weight, kill out proportion, conformation score and, colour of subcutaneous fat and *M. longissimus dorsi* muscle, did not differ significantly between concentrates. Carcass fat score was lowest for palm kernel meal 100g and highest for palm kernel meal 400g. Under the conditions of this study, results indicated that palm kernel expeller meal can be included in a barley-based concentrate at up to 400g/kg when offered as a supplement to grass silage and up to 100g/kg when offered *ad libitum*.