

Increasing output of an out-wintering growing cattle enterprise

David Hendy, independent ruminant nutritionist

David recently visited a store cattle producer buying in continental-cross calves. He explains the system and feeding options available at the different stages of production.



Production system:

The enterprise is based around the purchase of reared continental-cross steer calves at 14 weeks of age in January. They are fed concentrates and straw until turnout in early to mid-May and grazed throughout the summer and early autumn. The following winter they are out-wintered on fodder beet, concentrate and straw, until they're sold as store cattle in late March/early April.

Feeding reared calves indoors from 14 to 24 weeks of age:

The critical point for young reared calves is exploiting their capacity for efficient feed conversion to live weight gain, maximising weight and frame growth. At the same time, feeding at this stage needs to be cost efficient. Therefore this doesn't necessarily mean exceeding the recommended 2kg of 16 per cent crude protein compound feed per head per day; however, adding whole oats, up to ratio of 50:50, with the compound feed could maximise their potential.

Whole oats can be fed to calves up to eight to nine months of age before a reasonable amount starts to pass through undigested. Whole oats are a rumen-friendly feed, high in digestible fibre and ideally suited for calf rations.

In general, oats can be included as soon as the reared calves are delivered, starting at 10 per cent of the concentrate feed (i.e. 2kg compound + 0.2kg whole oats/ head/ day). After the calves have got used to the oats, start to increase the proportion at a rate of 20 per cent of total feed every fourth day over two weeks, up to a ratio of 50:50 by weight not volume. Once calves are being fed over 2kg feed per day, the feed should be split into two (am and pm), to enable calves to build up to approximately 4kg/head/day or 2kg per feed.



Target growth rates would be 0.8-0.9kg/ head/ day at this stage; therefore a calf delivered at 130kg liveweight in January should be approximately 200kg at turnout in early May.

Grazing growing cattle (summer to early autumn):

Once calves are turned out to grass, feeding should be continued up to 2kg/head/day of the same mix as fed in the yards for the first three to four weeks to help their rumen get used to grazing.

From early to mid-July, grass quality and availability may decline, at which point the feeding of a complementary feed to maintain growth rates would be ~recommended. There are numerous options, but 2kg/head/day of a 50:50 ratio of wheat feed pellets and rolled barley is one possibility. Wheat feed pellets are a co-product of flour manufacturing and are very safe and palatable. It has a high fibre content and Neutral Detergent Fibre <40 %, with reasonably good crude protein of 16-17 %.



Liveweight gain is critical at this point, but many factors can impact this, not least grass growth and dry weather. Supplementary feeding should be geared to achieve at least 0.75kg/head/day, so that by the end of October the cattle weigh approximately 350kg liveweight.

Growing cattle, out-wintered (late autumn/winter):

Once cattle are back on the over-wintering fields, the ration comprises ad lib fodder beet (once lifted), alongside a concentrate and ad lib straw.

One option is to keep the concentrate at a 50:50 ratio of wheat feed pellets and rolled barley. The other is to feed malt culms or malt residual pellets, feeding up to 3.5-4 kg/head/day depending on cattle size and weather conditions. Malt culms or residual pellets are a co-product from the malting industry and are a safe feed – they're high in fibre and have a good crude protein level of 22-24 per cent. This ration should enable growth rates of 0.75 to 0.85kg/head/day, so that by mid to late March the cattle will be between 470 and 500kg/head liveweight.

However, growth rates in this winter stage can be affected by weather and ground conditions, so feeding may need to compensate for this.

There are a number of other feeds that might be worth considering, but the feeds mentioned above will meet the needs of the cattle and should help maintain optimum growth rates up to sale in early spring.

Warning:

Not all sites are suitable for out-wintering and consideration of gradient, location, and soil type is paramount to minimise the risk of environmental damage through erosion and leaching.