

Feeding maize silage to beef cattle generates excellent growth rates

By Dan Burling

Dan farms in Cambridgeshire on the edge of the fens with his family. The farm is comprised of around 600 ha, with the majority of this being in a wheat-based arable rotation. Grazing is restricted to rented land, with the majority either being flood plain, river bank or Higher Level Stewardship (HLS) rough grazing managed by the RSPB.

Dan runs a herd of 200 stabiliser suckler cows and operates as a stabiliser multiplier herd for the Beef Improvement Group. The herd is performance recorded by Signet and is also part of a health scheme. Bulls are finished entire for the Morrisons Yearling Beef scheme between 12 and 14 months old, Dan aims to produce a maximum carcass weight of 370kg at R4L classification. Bulls with the desired blood lines are also monitored for potential as breeding animals. Heifers, on the other hand, are mainly kept for breeding and are grown to meet a target of 400kg live weight at 400 days of age.



A couple of years ago Dan decided to start growing maize to feed to the young-stock for two reasons:

1. Nutritional quality: straw was the only forage produced by the farm, which was unsuitable for feeding to young finishing bulls nor would it enable high growth rates with the heifers. Maize silage also provides a rumen-friendly source of starch
2. Rotational benefits: maize fitted into the arable rotation and could also be used as a potential break crop for black grass control.

This year Dan harvested his maize on 13 October which allowed him plenty of time to establish the subsequent winter wheat crop. The nutritional analysis of the maize silage is shown in Table 1. This analysis is used to formulate the ration cost effectively to provide a balance of the required nutrients.

	Analysis
Dry matter (%)	35.5
Crude protein (% in DM)	8.2
ME (MJ/kg DM)	11.6
Starch (%)	41.1

The maize produced on Dan's farm is only fed to the bulls at a rate of 10kg of maize per head per day.

Ingredient	Amount (kg/head/day)
Maize silage	10
SelcoPlus	8
Biscuit meal	3.5
Straw	0.8
Limestone flour	0.1
Minerals	0.1

The Total Mixed Ration (TMR) also includes SelcoPlus (distillery/cereal coproduct), straw and increasing levels of biscuit meal as the bulls grow (Table 2). This ration costs Dan approximately £1.44 per head per day. Dan aims to grow the bulls at an average daily liveweight gain of 1.8kg which will easily meet the Morrisons specification.

Next year the plan is to introduce a maize-based ration to the heifers, if sufficient yields are achieved. Last year Dan fed maize to all the young-stock, but ran out half way through the winter. This resulted in a drop in feed intake and therefore performance.

More information about growing and feeding maize silage can be found in our Better Returns Programme manual, [Growing and Feeding Maize Silage for Better Returns](#)