Calving heifers at two years old

Mike and Tom Powley, Elm House Farm, York

Mike Powley and his father Tom farm 134 ha of arable and grassland at Green Hammerton, Yorkshire. They run just under 100 spring-calving South-Devon-cross-Limousin suckler cows and breed all their cattle using artificial insemination (AI).

On the suckler cows they use semen from a British Blue with a top five per cent estimated breeding value (EBV) for terminal traits. The male offspring are finished on a cereal-based ration and the heifers are fed a forage-based diet. Mike breeds his own replacement heifers, using a Limousin AI bull on his purebred South Devon cows. The bull is in the top ten per cent for the breed and is specifically selected for strong maternal traits. Replacement heifers calve for the first time at two years old to an easy calving Aberdeen Angus AI bull.

Calving at two years old has a number of advantages to the suckler producer, including reduced numbers of stock on the farm and increased cow productivity over their lifetime. Mike has a strict heifer management protocol in place to ensure that heifers reach the target weight of 65% mature body weight at service and successfully calve at two years old.

Mike explains that good management starts as soon as the calf is born, ensuring that it receives enough colostrum within six hours of birth. Cows calve between the months of March and May, with the aim of turning the cow and calf out as soon as Mike is happy the calf is thriving. In July calves are introduced to a 15% crude protein (CP) creep feed, with the aim of ensuring high growth rates. The ration consists of rolled barley, soya, molasses and minerals (Table 1).

Table 1: Creep feed ration formulation (% FW inclusion)

Rolled barley	83
Soya	10
Molasses	5
Minerals	2

The heifer calves gain on average 1.1kg/day from birth to weaning in November, producing an average weaning weight of 291kg. To make sure they are protected at weaning, heifer calves are vaccinated for pneumonia six weeks before.

During the winter housing period, heifers are fed on baled red clover silage, the analysis of this crop is shown in Table 2. The heifers are also fed 1kg/head/day of a barley mix, which contains rolled barley, beans, molasses and minerals. Mike states that the first winter is extremely important because the heifers need to be large enough to fully utilise the grass once they are turned out in the spring. Mike aims for the heifers to remain growing at 1.1kg/day throughout the winter period.

Table 2: Red clover silage analysis, 2015 crop	
Dry matter (%)	53
Crude protein (% in DM)	18.8
ME (MJ/kg DM)	10.4

In March heifers are turned out to grass and are preferentially grazed on the best grassland. In June, all heifers above a target weight of 360kg are served to an easy calving Aberdeen Angus AI bull. The in-calf heifers are housed in November, kept separately from the main herd and penned with the first calvers. They are fed good quality grass silage (Table 3) from housing until January to promote steady growth. The aim is for heifers to calve at BCS 2.5.

Table 3: Grass silage analysis, 2015 crop		
	Good quality silage	Poor quality silage
DM (%)	62-65	58
Crude protein (% in DM)	14-15	11.4
ME (MJ/kg DM)	10.5-11	9.3

More information can be found in the Better Returns Programme manual,
Managing Replacement Heifers for Better Returns