

Organic Dairy Calf Initiative

Case study 1: Eastbrook Farm, Wiltshire

Until the early 1980s, dairy breed bull calves were reared for beef at Eastbrook Farm. However, like most dairy farms, 'specialisation' became the name of the game and the move to higher performance Holsteins rendered the calves unsuitable for beef; many of the finer boned calves were therefore shot at a few days of age.

Organic veal

Fifteen years ago, Helen Browning decided to experiment with rearing these calves for veal. She erected a rather splendid building that made it possible to use older or temporarily unfit cows to rear calves. All her calves – around 180-200 a year – are reared by these 'nurse' cows. While the dairy heifers are weaned at around 4 months, and the beef crosses at 4-6 months, the veal calves stay on the cows all through their lives. In every other way, however, they have the same high standard of care that all calves received; plenty of space and bedding, free access to quality hay, silage and oat diet, and go out to grass with the cows in the spring.

A cow will usually rear four calves, depending on her stage of lactation, general health and productivity. It is assumed that each calf will need around 6 litres of milk a day, so the cow needs to be fed as though she is a reasonably high performance dairy cow. When a cow comes into the calf unit for the first time, she will often be reluctant to take calves. The building has some pens with yokes that allow the cow to be held while feeding, so that calves can suckle under supervision. After a few days, she will normally get the hang of things and start to care for the calves as though they were her own. Occasionally, cows do not take to calf rearing at all. But once they have reared one batch, they will usually accept new groups without any fuss. Heifers seem to have an amazingly strong maternal instinct and will love calf rearing, often much more than the milking routine.

In the spring and summer, cows are turned out with their calves once they have bonded well and the calves are strong enough. This may be at only a week or two; if the calves are very young they will not usually join a group of older ones. Once the group dynamic has been established, it is better to keep it stable. It is fine to remove calves as

they are selected for slaughter, but young calves may be pushed off their mum by the older, stronger ones.

A clean grazing system is maintained for veal and all first year calves but, unlike the rest of the calves, they do not get a lung worm vaccine, so it is important to keep an eye out for coughing. A faecal sample will be taken every couple of months to check for this and other parasites, but it is very rarely a problem.

Cows and veal calves will continue to receive an oat/pea supplement at grass at around 1-2 kg/day, depending on grazing quality.

The system works well and, with good stockmanship, is relatively easy to manage. The calves are not castrated, which aids rapid growth and good muscle development, and any calves that are not sold as veal by 8-9 months go on to beef at 14-16 months. If they do go on to beef as bulls, a few cows are left with the group to keep them quiet; they will continue to suckle a bit, which all helps to maintain good growth rates.

Marketing

In Helen's opinion, the challenge is not so much in producing veal but in finding a good market for it. Her veal is sold through her own home delivery system, in her pub and to independent butchers and restaurants. Public perception of veal is certainly improving and, along with other producers, Helen has developed a leaflet as part of the 'Good Veal Campaign' to try to encourage more people to try this delicious meat. Contact her at info@helenbrowningorganics.co.uk if you would like copies to give to potential buyers, or any further help and advice.

Challenges

The key challenges in the production system is maintaining good growth rates on a mostly forage diet, especially if rearing for beef. High quality silage is crucial to this in winter months, but then that is a priority anyway, given the dairy. The non-forage part of the ration is 20-25% pea or beans, with 75-80% oats, all home grown.

Veal and bull beef calf costings

It is a hard system to cost properly because of the difficulty in valuing the cows in the system. However, here's an attempt to do so:

Assumptions

The cows are used to suckle calves that would otherwise go as culls due to high cell counts, or 'old age' issues that mean they should not be subjected to the rigours of the dairy herd – long walks to grazing, etc. Or they have a temporary problem, such as mastitis or lameness; suckling allows their rehabilitation while maintaining them in milk. Once they become infertile and have low milk yields they will go as culls. The only cost therefore to the system is an increased risk of on-farm mortality. This is around 15% for these older cows – so cow cost is £800 (current cull value) x 15%, divided by the 6 veal/bull beef calves they will rear each year = £20/calf.

Calf value assumed at £50.

Cows eat 10t/silage/year, valued at £28/t; this is our internal charge between enterprises which includes forage costs, including rent, silage making and feeding to cows = £46.60/calf.

Cows eat 1.2t oats/peas per year @ £200/t = £40/calf.

Calves eat 10 small bales of hay @ £5, plus 3t of silage @ £28/t, or equivalent value grazing = £134.

Calves eat 330kg concentrate feed (1.5kg/day from one month) = £66

Specialist building for calves cost £120k, depreciated on a straight line basis over 25 years = £4800/year; we rear 180 calves/year through it, so £26.6/calf.

Vet and meds costs = £15/calf. No vaccines, wormers, or castration, but occasional sick calf that may require vet treatment.

Straw 1t/calf to 8 months = £25

Labour – one person to rear 180 calves to finish (dairy heifers, beef, veal and bull beef) @ 20k = £111/calf.

Tags, sundries, registration, electricity, insurance, etc. £20/calf

Total cost of production of veal calf @ 8 months = £554.20

Value of calf for veal, 160kg/DWT @ 380p/kg = £608, @ 400p/kg = £640 – this assumes growth rate of 1.2kg/LWT per day (30kg @ birth, 50% killing at %).

Taking calves onto bull beef

Bull beef = £554 (cost of veal calf at 8 months) +

Additional feed cost: 3t/silage or grazing = £84

480kg (2kg/day) concentrate = £100

+ additional 1 tonne straw = £25

Suckler cow = £15

Liveweight gain of 0.9 kg/day from 8 to 16 months

At 540 lwt/ 270kg dwt = £778 = 2.88p/kg cost of production

Sensitivities: this shows how financial performance will vary according to key performance criteria

+/- 10kg/dwt = £26/ animal

+/- 1 month to finish = £28/animal

+/- 20p/kg = £54/animal

+/- 100kg/concentrate = £20/animal

+/- 0.1kg/day growth rate = £29.46/animal

Please note that these costs are for guidance only:

Every farm will have different circumstances and should try to establish what their own costs are likely to be. Transport to slaughter, finance charges have not been included, but most of the direct production costs are on the generous side. From this analysis, the veal system is sensibly profitable, while bull beef is possibly more marginal... as with beef overall! Much depends on achieving good weights and grades, and there is no doubt that this is easier to achieve with better quality calves, hence Eastbrook Farm's move towards 100% Friesian over the last few years, with no detriment to dairy yields to date, and the likelihood of better cull prices in the future.

Produced by:

Soil Association
South Plaza, Marlborough Street,
Bristol BS1 3NX

T 0117 914 2400

F 0117 314 5001

E producer.support@soilassociation.org

W www.soilassociation.org