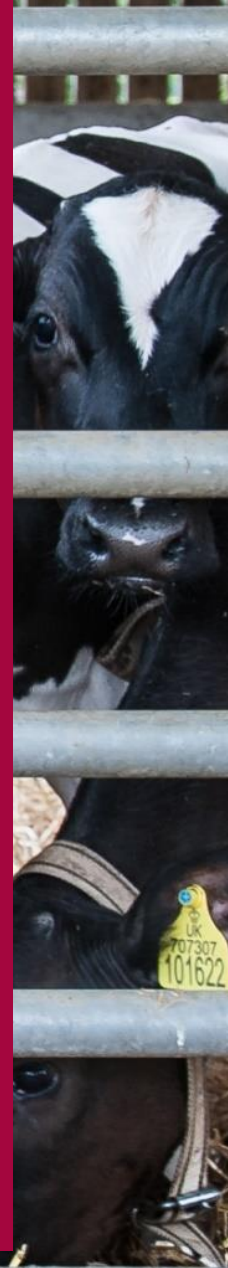


MEADOW QUALITY COLLECTION CENTRE REPORT

Report for AHDB Beef & Lamb Project:
Best practice dairy beef calf rearing

Report completed by the
Royal Agricultural
University

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Report Objectives

This report was carried out by the Royal Agricultural University on behalf of AHDB Beef and Lamb. Meadow Quality collection centres were visited in Whitchurch and Chippenham in September 2018.

The objective of the report was to assess management of dairy beef calves within collection centres.

The RAU thanks the Meadow Quality team, especially Simon Fryar for input and time dedicated to carrying out collection centre assessments.

Key Findings

The Royal Agricultural University reports high welfare conditions of calves entering and leaving the Meadow Quality collection centres.

The system is well thought out and provides a good sale outlet for dairy farmers which, through high specification, encourages attention to the health and welfare of calves on the dairy farm of their birth.

Staff handle calves effectively and efficiently in order to reduce time in transit and ensure that calves are delivered to their rearing destination as soon as possible.

The facilities at Whitchurch and Chippenham provide all the necessary requirements for this transition stage, all calves are provided with clean water, clean bedding and a generous space allowance.

Observations of calf behavior and handling indicate a high welfare facility which minimises calf stress.

Whitchurch Collection Centre

The Whitchurch Collection Centre only handles clean calves (non-TB) every Wednesday year-round.

Sourcing of calves

The Whitchurch collection centre sources calves for independent beef farmers as well as contract rearers/ finishers. All calves are sourced to meet orders.

Supply and demand are managed through planning software platforms which enable orders to be placed and met by Meadow Quality. Customers require different specifications of calves, which the planning software enables placing of calves prior to the collection day.

Meadow Quality receives all calves direct from dairy farms; calves are not sourced through markets.

Calf characteristics:

- Black and white bull calves 26% of total throughout
- Beef cross dairy heifers 37% of total throughout
- Beef cross dairy bulls 37% of total throughout

The collection centre policy is for the minimum age of calf accepted to be 10 days old.

The maximum age of calf accepted is 42 + days of age

The target age of calves is 21 - 28 days at a weight of 60 kg

The weight range accepted is between 55 kg and 75 kg

Relationship with dairy farmer

Meadow Quality protocol for dairy farmers selling calves is as follows:

- Vehicles to come from farm assured holdings
- Vehicles should be cleaned for arrival at Whitchurch collection centre
- Dairy farmers should have met the minimum requirement for providing colostrum (literature on these aspects is provided in a collection book)

Meadow Quality have good relationships with dairy farmers. Farm visits by MQ staff include discussing sire selection and breeding profiles to ensure good stock for entry to the dairy beef supply chain as well as grade profiles to help farmers ensure calves are within specification.

Dairy farms are visited by Meadow Quality staff prior to calf collection to control calf quality and ensure animals are fit for travel and sale.

Vaccination at the point of dairy farm is currently not feasible within the business model.

BVD testing is not compulsory but Meadow Quality would like to see an industry move towards this and currently provides BVD testing for some customers.

Delivery of calves to collection centre

Deliveries of calves by the dairy farmer start at 8.00 and run to approximately 12.00, between 12.30 and 13.30 haulers deliver calves that have been collected directly from the dairy. In order to minimize the time at the collection centre the aim is to have completed paperwork and sorting by 14:00 so calves can travel to their destination farm within a few hours.

Source farms usually supply from 1 to 8 calves for collection, depending on geography and collections required.

The shortest distance calves travel to the Whitchurch collection centre from the source dairy farm is 1/2 mile, the longest journey is approximately 80 miles.

The shortest distance calves travel from the Whitchurch collection centre to the farm they will be reared on is 1 mile, the longest distance is approximately 50 miles.

Operating procedures for calves in the collection centre

Calf space

The maximum capacity of the Whitchurch collection centre for calves weighing 50 - 100 kg is set by Meadow Quality as 486, industry standards however would enable 617 head of 50 - 100 kg. The Whitchurch facility therefore provides calves with approximately a third more space than legislation dictates.

Each pen has a board attached which indicates the maximum stocking rate of the pen, which is typically 14-15 but up to 28 calves in the largest pen.

All calves have sufficient space to lie down at the same time and all can rest undisturbed for at least one hour whilst at Whitchurch collection centre

On average pens accommodate 14.7 calves, the largest pen accommodates 28 calves

Handling

On arrival calves enter a holding area. They are then moved through a weigh crate to be weighed and graded. Grade is sprayed on the back, so all staff can see. Their ID is checked alongside passport documentation and the calf is moved to an order pen which matches its grade criteria. Approximately 3 members of staff handle the calf through this procedure

There are between 6 and 8 members of staff working with calves at the collection centre.

All staff are trained (see section below) in biosecurity, calf handling and recognition of symptoms of ill health.



Image 1: Calf arrival area - weigh crate with stockboard sides to reduce noise and draughts.

Pen provisions

All calves have access to clean water and roughage whilst at the collection centre

Calves will only receive a milk feed if they stay longer than the normal duration, for example if there is a logistical problem with transport. If a problem should arise, Meadow Quality keeps a store of milk powder and a teated milk trough.

Electrolyte is only provided if calves are exhibiting symptoms of dehydration and illness, in this case a vet would also be called to safe guard the welfare of the calf.

Calves are not held overnight.

Biosecurity and health

Health checks

Calves are all visibly inspected for signs of ill health by the centre's staff upon entry into the collection centre, which has a dedicated welfare officer.

It is not necessary for a vet to check all calves, however if a concern is raised, a vet will be called to the collection centre.

Blood samples are not routinely taken.

In the rare case of a calf not making the grade in terms of health, calves are immediately isolated, and a vet is called.

Calves that do not meet weight grades are penned separately for processing at a licensed abattoir.

Biosecurity procedures

All vehicles entering the site are required to be clean but there are no disinfectant protocols for vehicles entering the site.

There is a designated wash bay for vehicles to clean prior to leaving the site with disinfectant provided in a knapsack sprayer.

Iodine based disinfectant foot dips are provided at the collection centre.

The Whitchurch collection centre has a dedicated biosecurity officer.

Overalls are worn by members of staff; however, gloves are not used.

Once all calves have left the facility, the collection centre is cleaned and disinfected then left for a week prior to the next collection day.

Best Practice

Design of facilities for calves (loading bays, races)

Meadow Quality staff play an important role in the design of the centres to ensure that they are constantly evolving. The weigh crate has recently been updated so that it has stock board sides, which contributes to a less draughty and more secure environment for the calf and therefore improves welfare. This design also improves handling as the stock board provides better sound proofing, resulting in fewer loud noises which could stress a calf.

Ideally the whole collection centre would be stock boarded, but sheet metal does provide biosecurity between pens and is easily cleaned.

Handling and training procedures

The Meadow Quality staff are trained in house and contribute to the best practice standards of the centre. A health plan has been drawn up by a Defra vet, with the aim of achieving best practice.

Meadow Quality are looking to train staff further and provide them with official qualifications.

Challenges and opportunities

BVD tag and testing - an opportunity for the dairy beef sector to improve practice if a standard is set to test and tag all calves. The disease itself is a significant challenge to the sector and therefore needs to be addressed.

EID tagging would significantly improve the efficiency of the dairy beef supply chain with opportunities being offered throughout the sector. The challenge is getting dairy farmers engaged and making EID tags in the cattle sector compulsory.

TB is a big challenge for the livestock sector, however there are clear opportunities for dairy farmers to use the TB markets run by Meadow Quality. The biggest challenge is creating more AFU's across the country to facilitate the supply of TB calves. Currently there are too many TB calves compared to AFU facilities, resulting in many purebred calves being destroyed at the dairy. AHDB need to work more to promote AFU beef facilities to balance the supply of TB calves to the market. There are huge opportunities for AFU beef producers in the supply of meat to market. A challenge remains with providing AFU grazing for some retailer schemes for cross breeds, this needs to be addressed through legislation.

Collection Centre Observations – 19.09.18

Facility Design

The Whitchurch collection centre is a typical steel-framed livestock building with screeded block walls topped with space boarding.

Ventilation socks are installed at one end of the shed to improve ventilation, the other end of the shed benefits from natural ventilation.

The collection centre is open with pens providing a generous space allowance.

Pens are a mixture of sheet metal and open gates - the condition is good.

The weigh crate is stock boarded to reduce noise and improve insulation.

Weather conditions: Cloudy, dry, windy

Temperature outside: 18 degrees C

Temperature inside: 17 degrees C

Measurements

A scoring system was used to evaluate space, water and forage availability, handling and levels of disturbance as used in previous studies. This was on a 4-point scale from 1-4, where 1 is the best score, using pre-defined descriptions of each score (see Appendix).

Race floors:

- Type: Concrete with anti-slip grooves and slope for drainage
- Cleanliness score: 1
- Slipperiness score: 1

Calf Observations

Average stress level as a result of handling: 1

Forage and water access:

Bedding	Straw	Forage Score	Water	Water Availability
Y	Y	1	Y	1

Behavioural Observations

Scan	No. of calves	Breed	No. lying	No. vocalising	No. sleeping	No. ruminating	No. cross sucking/ sucking/ fittings	Notes:
Pen 1								
1	6	Hereford	4	0	1	3	0	
2	6	Hereford	4	0	0	3	0	
3	6	Hereford	5	0	0	2	0	
4	6	Hereford	5	0	2	3	0	
5	6	Hereford	6	0	1	3	0	
Pen 2								
1	6	Continental X	0	0	0	1	0	
2	6	Continental X	1	1	0	1	0	
3	6	Continental X	1	0	1	0	0	
4	7	Continental X	2	0	0	0	0	
5	7	Continental X	4	0	2	2	0	
Pen 3								
1	5	Continental X	0	1	0	1	0	
2	5	Continental X	0	0	0	3	1	SF*
3	5	Continental X	0	0	0	1	0	
4	5	Continental X	3	0	2	2	0	
5	5	Continental X	3	1	2	2	1	SF*
Pen 4								
1	4	Continental X	2	0	2	1	0	
2	4	Continental X	2	0	2	1	0	
3	4	Continental X	3	0	2	1	0	
4	4	Continental X	3	0	1	0	0	
5	4	Continental X	3	0	3	1	0	
Pen 5								
1	3	Simmental X	3	0	2	1	0	
2	3	Simmental X	3	0	1	1	0	
3	3	Simmental X	3	0	3	0	0	
4	3	Simmental X	3	0	3	0	0	
5	3	Simmental X	3	0	3	0	0	

*Playing with gate latch with tongue - cannot be described as a negative behaviour

Behavior observations account to high welfare conditions, calves were calm and enabled rest in a comfortable environment. No negative behavioural indications such as cross sucking were observed and in the two cases where a calf appeared to suck on fixture, the calf did not exhibit a sucking motion and instead indicated play or inquisitive behavior.

Behaviour Observation Images:



Appendix: Scoring descriptions for collection centre observations

Animal handling by lairage staff/stress to calf

1	2	3	4
Animals moved easily - none or minimal levels of vocal and physical guidance	Animals encouraged to move with occasional use of mild vocal and physical guidance	Frequent shouting at, slapping or goading of animals	Excessive use of sticks shouting, slapping, striking animals. Forcing movements on most/all handling occasions

Access to water

1	2	3	4
Easy access for all	Easy access but may have to wait to drink	Access to drinker difficult (location or high stocking rates)	Insufficient/no drinkers.

Feed/bedding availability

1	2	3	4
Easy access for all to clean straw/feed	Very limited supply - not all can access at once	Limited or soiled bedding	No feed or edible bedding

Floor cleanliness

1	2	3	4
Clear of manure	Some manure on floor	Largely covered in manure	Covered in manure/slurry

Floor slipperiness

1	2	3	4
Dry floor, plenty of grip	Mostly wet but well grooved/bedding present	Potentially slippery (smooth or wet)	Wet floor, very slippery

Observations

Measure / score	1	2	3	4
Space allowance	all could lie	>2/3 could lie	<1/3 could lie	none could lie
Level of disturbance to calf in the pen	No humans or calves pass or enter pen	Minor disturbance from passers by	Handling or ear tag reading from outside the pen	Handling or ear tag reading from inside the pen
Condition of floor	Dry, clean bedding	Dry clean floor (bare)	Wet bedding or floor fairly clean	dirty/wet/bare
Calmness	Majority are calm and several or all are lying and/or ruminating	Most are alert observing and listening to activities in centre, <half are lying or ruminating	All are alert most of the time with some vocalising and moving around	None are lying, little or no ruminating - agitated, moving around a lot, vocalising