

Weaning: starting them early

Moving from milk to solid feed is stressful for any mammal. Offer your calves concentrates from just a few days old to ease their transition

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Offer a high-quality, palatable starter concentrate to bought-in calves as soon as they arrive. Refresh the feeder each day. The feed should contain 17-18% crude protein and have an energy value of

at least 12 MJ/kg (greater than 0.95 UFV/kg). Avoid finely ground, dusty feeds which will reduce intake.

Calves fed coarse starter mix initially eat more and have higher weight gain and generally make the transition better. Calves should only be weaned once they are eating a high volume of meal.

The amount of concentrates a calf

will eat depends on the availability of concentrates and the volume of milk it's being fed. Ideally, calves will have been consuming at least 1.5kg of starter concentrates or more per day for at least three consecutive days prior to weaning. This level of intake is usually reached by eight weeks of age.



CASE STUDY: Gareth Peoples

DairyBeef 500 farmer Gareth Peoples farms full-time in Tullyannon Carrigans Co Donegal. Gareth operates a calf-to-steer beef system and is coming close to weaning his group of spring-born calves.

Eighty calves were reared this year on the farm, a mix of autumn- and spring-born Holstein Friesian male calves, all of which will be slaughtered as steers at approximately 24 months of age. The plan is to increase to over 100.

"All calves on the farm are sourced locally," says Gareth. "This means less stress for young animals; minimising any potential disease outbreak. My preference is for a calf that is at least three weeks of age as at that stage immunity has increased and they are less vulnerable."

Two days after arriving on farm calves get a vaccine for pneumonia and a drench to prevent coccidiosis. Calves are fed a 750g of a 23% crude protein milk replacer twice daily from arrival until they are about five weeks.

They are then cut back to once-a-day feed and from then on the quantity of



Teagasc advisor Gary Fisher and Gareth Peoples. \ Clive Wasson

milk replacer fed will be reduced until weaning.

"From five weeks, calves are fed 400g of milk replacer in three litres of water and are kept on that regime until they reach their targeted weaning weight of 90kg at generally 55 to 60 days," says Gareth.

From arrival, calves are introduced to a highly palatable coarse ration. The ration contains 19% crude protein and is

made up of high quality ingredients soya bean, barley, flaked maize, soya hulls, distillers and molasses. It also contains an acid buffer and yeast to prevent digestive upsets.

"In my experience, calves can be slow enough to consume any significant levels of concentrates," says Gareth. "But once they start, intake increases rapidly especially when they are reduced to once a day milk feeding."

"Keeping the troughs clean and feed fresh, from the start, is vital to get calves to start consuming reasonable levels. Generally at weaning calves would be consuming over 2kg of concentrates per day and they are kept on this level until turnout."

Straw is the fibre source and calves have access to clean fresh water at all times. When calves are first let out to grass they are put out to stronger and stemmy covers. Gareth says this ensures extra fibre and that the grass isn't too lush, reducing the risk of summer scour.

"We continue the concentrate supplementation for the first few weeks post turnout and once calves get accustomed to the diet concentrates are reduced and the quality of grass that they are grazing is improved," concludes Gareth Peoples.

Research recommends a concentrate to roughage ratio by weight of 8:1 or 200g/head/day of forage to pre-weaned calves. \ Clive Wasson



Forage

Calves need small amounts of roughage in order for the rumen to develop. Forage supplementation aids rumen development, but is not nearly as fundamental as concentrates.

Straw is an easy roughage for calves

to digest and is preferable to hay. High consumption of hay will decrease intake of concentrates, and the young calves will often develop 'pot bellies'.

Don't allow excessive consumption of straw either as it will reduce the overall energy density of the diet and performance will be reduced.

Research recommends a concentrate to roughage ratio by weight of 8:1 or 200g/head/day of forage to pre-weaned calves.

Ensuring successful weaning

At weaning, calves should be healthy and not stressed. If there are any 'issues' with them, continue milk feeding.

Stressful events such as castration, disbudding or vaccination will cause upsets and potentially cause a growth check after weaning.

Step weaning

Calves can be either 'abruptly' or 'step' weaned. Stepped weaning is when the amount of milk being fed and the number of feeds/day are steadily reduced.

Generally, stepped or gradual weaning is achieved by reducing the volume of milk fed over seven to 10 days. If calves are being fed milk twice a day, weaning can be achieved by cut-

ting down to once a day feeding.

Both stepped weaning and abrupt weaning can work well provided the calf's rumen is adequately developed and that they are eating at least 1kg of calf ration per day.

However, stepped weaning reduces the stress at weaning and helps avoid temporary setbacks in growth rate

Preventing post-weaning growth check

The post-weaning growth check found in many calves is due to three factors:

- Low intake of dry feed up until weaning, resulting in limited rumen development. This results in a growth check for about two weeks while the rumen becomes accustomed to digesting significant quantities of dry feed.
- High intake of bulky roughage such as grass and hay. Calves are physically unable to eat enough roughage to sustain rapid growth weights with their small, developing rumen.
- Calf stress when feeds are changed. Feeding concentrates before, during and after weaning should limit the level of any growth check. If a growth check does occur, the lost growing time will never be made up and it will take longer to attain target weights.

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