

The keen rearer is the best

Glenys Christian

The best calf-rearer is the person who wants to do the job, according to Poukawa scientist Paul Muir.

"Empathy with calves and experience are the two most important things," he told the DairyNZ Farmers' Forum.

And he cautioned farmers about moving a good calf-rearer on to other tasks in the dairy in the new season.

"Leave them in the calf shed – experience is critical," he said.

Another option was to employ an experienced contract rearer would take the calves away and rear them, being paid on performance.

Muir said, with 1.5 million dairy heifers and bull calves reared each year, it was important the job was done well, as lost weight gain was always hard to make up. He said calf sheds didn't need to be elaborate or expensive, but they should be warm, dry and draught-free with at least 1.5 sq m/calf of floor area.

Calves had to have enough colostrum in their first 24 hours as after that time they could no longer absorb its antibodies...

"The more you pack calves in, the dirtier the bedding gets and the greater the ease of spread of disease."

At Poukawa, Hawke's Bay, a shed built in 1996 where a hedge blocked out the southerly wind was still working well for rearing calves on milkpowder. A second, more enclosed shed, was built five years



Paul Muir – you can't beat experience.

ago where wholemilk was fed.

Muir said the open shed was still the best to rear calves in, with sunlight keeping pathogens at bay. A 23 percent lower death rate had been recorded.

Similar experiences had been shown overseas, where calves were quickly moved outdoors to individual sheds in Ireland or into the snow in Denmark to cut animal health problems.

But he believed a lot of New Zealand dairy farms push their calves out on to pasture too early.

"Keeping them indoors enables a more rapid transition to meal and enables you to sleep better when that southerly blast comes through at 2am," he said.

There were now a lot of UV-resistant plastic-roofed calf-rearing sheds in Hawke's Bay, which had been easy and cheap to construct. The bedding in them could be of bark chips, sawdust or shavings, but these needed to be untreated.

Calves had to have enough colostrum in

their first 24 hours as after that time they could no longer absorb its antibodies to protect them from disease.

"Don't assume they've had enough from their mother, as research consistently shows 25 percent of calves collected on a daily basis haven't had any colostrum at all," he said.

Colostrum

A survey of 500 calves showed those which hadn't been fed colostrum ranged from 10-44 percent with 12 percent losses recorded overall. Lack of colostrum intake could be due to the calves taking several hours to stand, their mother having sore teats, or they may have crawled under a hot wire.

Muir said two litres/calf of day one colostrum should be fed to the animals when they came into the rearing shed unless they were obviously full. The rate at which calves absorb its antibodies halves every six hours so it is critical they receive day one colostrum as early as possible.

"Calves with poor colostrum intake grow slower as well as being more likely to get sick," he said.

If calves were going to die they would usually do so in the first 10-14 days because of the pathogen challenge.

Calves fed a lot of milk so they didn't need to eat meal or grass had very slow rumen development with low microbial populations. Muir said surveys showed dairy farmers rearing calves fed them twice as much milk, at an average of 316 litres/ calf as rearers, and could feed up to 100kg of pellets in some cases.

Growth check

There was a risk that when milk wasn't available freely to farmers and they didn't





Calves respond to good-quality care.

want to take milk from the vat, they would restrict feeding levels so calves were weaned, resulting in a serious growth check.

"Better to see this coming and restrict milk intake earlier, so that calves have to eat hard feed," he said.

Once-a-day (OAD) restricted wholemilk feeding could be successful with some rearers feeding two litres/calf morning and night for a week, then three litres/calf/day for a further three weeks.

With Friesian milk at eight percent solids, worth 48c/litre at \$6.10kg milksolids (MS), cheaper options were skim milkpowder (SMP) at 37c, budget milkpowder at 27c or whey milkpowder at 32c. Muir said there was a trend towards cheaper options when vat milk ran out, but calves often did poorly on products which didn't curdle and there was a higher risk of bacterial problems, especially in younger calves.

Wholemilk was better by 20 percent

but cost 25c/megajoule of metabolisable energy (MJ ME).

SMP cost 18.6c, budget milkpowder 13.7c and whey 163c.

Pellets bought at \$650/t cost 6.4c and grass costed at 15c/kg dry matter (DM) 1.5c.

Muir said European milkpowders and meals had to have their contents listed.

"Here you buy a bag of white powder and hope it's got the right stuff in it," he said. ➡ 110

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Farmers also needed to be careful with feeding meal if their calves were to be weaned early so they could digest grass at an earlier age.

Unpalatable

Copra meal, tapioca and palm kernel were unpalatable to very young calves and if incorporated into meal pellets, intake would drop.

This could mean the whole early rumen development process could fall over.

Muir advised farmers to chose pellets the colour of grain. A light colour should show a high grain count but his preference was to buy loose meal to be sure of exactly what was in the feed as manufacturers rarely specified what was in their pellets.

"If it's chocolate-coloured, be suspicious," he said.

He recommended compartment feeding with one person supplying feed and the other checking for wet tails. Coloured bands used for tying up roses could be placed around calves' necks as a reminder to check them again the next day.

"It's an invaluable tip," he said.

"It allows you to see what goes on."

Muir said calves could be weaned off milk if they we eating 1kg of meal which could be as early as at six weeks of age or 63kg liveweight for a Friesian calf. "Weigh the calves at five weeks of age and do the first wean based on a 20kg weight gain from when they come in," he said.

"Be aware that if the mob is eating 1kg/ head some will be eating much more than others. So watch carefully after weaning as some calves may have to be put back on milk – these will be the ones that weren't eating enough meal."

Coloured bands used for tying up roses could be placed around calves' necks as a reminder to check them again the next day...

Meal feeding needed to be continued after milk feeding for up to six weeks while the calves were moved to grass.

"If calves are just being fed milk and pasture the weaning time has to be much later, with weaning targets as high as 90kg."

The energy in grass was harder to digest and it also had a high water content, of up to 85 percent.

"This means that it's bulky so young calves simply cannot fit in enough grass to meet their energy requirements," he said. "As calves get older they can be switched to crushed grain."

While grain prices were low, a supplement of 0.5-1kg/head of crushed maize/day could be a good way of keeping calves growing through their first summer.

Muir said soy meal was the best-quality feed with peas, crushed maize and barley all being OK. Brassicas were also a good option to boost calves' summer growth rates but Muir warned farmers not to let their calves graze into the plants' stems, so rotational grazing was best.

A trial in 1995 showed growth rates of over 1kg/day and a more recent one in 2007 gave a variation between 0.7-1.1kg/ day. Some of the old cultivars such as Winifred were still the best.

At a cost of 40-50c/kg liveweight (LWT), brasicas beat any other supplements on cost.

"But you've got to plan for it," Muir said.

"If you're regrassing next autumn it's a good option."

Muir suggested farmers seek independent advice on calf rearing "rather than from someone who is trying to sell you a product".

Newsletters produced by the Poukawa Research Station are available by emailing Muir at *paul@on-farm.co.nz* or by phoning 06 874 8757.



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