

Introduction

The Turn-Style milking principle, first built in 1969 by dairy farmer the late Merv Hicks in Taranaki, from about 1985 became very popular. Many of the country's first Turn-Style sheds (dairies or parlours in USA) were built in Taranaki, but now they are being built extensively throughout the country and many overseas.

An advantage of the Turn-Style is that almost no cows dung. They seem to relax and enjoy the ride in their individual secure bail, free of any jostling by others. A relaxed cow seldom messes during milking.

Avoid building internal rotaries. The vendors promote the benefits which are all theory. Very few have been built. One bankrupted a farmer because he could not train his cows to the system of having to turn around as they go in, so went back to a herringbone. Jerseys proven to be more intelligent and tamer, learn more quickly.

Herringbones, first developed by dairy farmer the late Ron Sharp at Gordonton near Hamilton in 1952, took more than 20 years to be widely accepted and is now about 80% of all farm dairies in New Zealand.

When Ron Sharp built the first herringbone, he had a bucket behind each cow to catch the dung, but these were condemned by the dairy inspector as being "too dirty".

It took him years to get government approval for his system.

Layout

Rotaries can be almost anywhere, but herringbones must not have the cold wind blowing in on one side which cows will learn to avoid and will make the whole building cold.

Never have the cows walking downhill into a herringbone, because they don't like walking or standing down hill, and never face it toward feed troughs from where hungry cows in the herringbone can see others eating.

Ask a User

The question in the minds of farmers planning a new shed is whom to believe. The sales person is pushing a sale, and the consultant has seldom milked and doesn't have to.

Most consultants are aiming to save money for their client, to justify a fee, but they may be costing the client more in the long run if recommending a herringbone, because of their higher annual labour costs.

The solution is to use the universal purchasing rule of asking users their findings. If any sales person can't give the names of several local users, forget the product until they can. Don't be a guinea pig in anything.

Right Decision

Shane and Kathy Ardern, Opunake, say they had many negative comments about building their new Turn-Style, but are convinced they made the right decision. The main reasons, according to Shane, are milker comfort, efficient milking, and one person milking. "The negative comments about mechanical reliability do not apply to today's models of Turn-Styles", says Shane.

Turn-Style users Brian and Robin Petch, of Wardville near Matamata, say that capital costs should not be the only consideration when researching milking choices. Further reasons they gave for their choice are the facility for automatic bail and cluster cleaning during milking, and the fact that washing up time is half that of herringbones.

If it saves a person it could save a farm house.

Benefits

Paul and Helen Reymer, sharemilkers of Ohinewai, have milked on farms with herringbones and rotaries, and believe that the latter add to the efficiency of dairy farming as a whole, and they have nothing but praise for owners who build rotaries to allow sharemilkers to take advantage of the benefits they give.

Paul says that when one person can milk 240 cows an hour in a rotary, and only 120 an hour in a herringbone, the savings are substantial, because the 14 hours saved each week add up, and give a lot more time for farm work, which, if kept up to date, is where he sees increased production coming from.

Paul believes that it would be better for farmers to build a smaller rotary, which one milker can operate, rather than a larger herringbone, which always requires two operators.

He also points out that, if two labour units are required to run the farm, then the extra person is better doing farm work, rather than being tied to the milking shed twice a day, seven days a week.

Cost Differences

Differences in cost between the larger Turn-Styles and larger herringbones are not great. Yards, buildings, and milking equipment costs are much the same.

The main differences are in the platform and bails, and total about \$1,100 per bail extra for the Turn-Style, although quite often fewer bails are necessary and faster milking is achieved.

If feeding grain, one dispenser can do it, instead of one per cow which can mean 60 more. I'm not in favour of feeding grain even in small amounts, but in short droughts when no other forms of feed are available, grain may be the only one.

Floors

Slippery concrete surfaces cause stress for the animals and operator. Concrete can be grooved but it will be harder to clean. A rubber floor can give cows traction and be soft to walk on and some are easy to clean. Top quality rubber lasts and there is less risk of injuries. Many are available.

Easy Herd Testing

The Turn-Style system allows easy AI and herd testing. In Malcolm and Penny Webster's shed at Hoteo, near Wellsford, the herd tester collects the milk and works in a special area under the Turn-Style, out of the way, but in a position where the cows' ear tag can be seen.

Automatic cow identification can be simple because each cow puts her head into a fixed bail.

Easy Training

Training of cows on to the Turn-Style is exceptionally easy, so much so that few users run the heifers through before calving. Once they have calved, users just walk behind each heifer, holding a piece of rope stretched behind it, with their hands apart, so that she can see the rope. The rope extends beyond their hands, so they can flick the heifer to encourage it. First calvers often walk straight into the bail, and after three milkings they are like the rest of the herd, pushing to get on to the platform.

Because the Turn-Style milking system uses a low line, the vacuum need be only 42 - 45 kPa, which the cows appreciate, and still gives faster milking.

Automatic Washing

The Turn-Style system has a water jet which sprays the clusters after they have been taken off the cow. This keeps the clusters clean, so, with automatic bail washing, time is saved on a tiresome task.

Continuous automatic cluster washing on a Turn-Style improves milk hygiene saves time.

Parts Unavailable

If age is the culprit of faulty milking, a new plant is the only solution. When researching a new milking machine, farmers are advised to buy from an established company, and not end up like purchasers over the years of brands like GVB, Simplex, Orb, Treloar, International, Hayward, King, Ridd, Gane, McEwan, and in more recent years the two Ruakura milkers and NDA, all of which are no longer available. DeLaval kindly took over the spare parts and continued to supply them for years.

Liners & Claw Tubes

The maximum life recommended is 2,500 cow milkings, or six months, whichever comes sooner. The average situation in New Zealand is about ten cows per cluster per milking, e.g., 150 cows through a 15 a side herringbone, giving 20 milkings per liner per day. Dividing this into 2,500 gives 125 days or four months. Very, very few farmers in New Zealand change their liners every four months.

At the other end of the scale, in the USA they change their liners after about 1200 cow milkings, or every three months.

Reasons for changing liners regularly in the USA are that their grade penalties are high, and their relatively higher milk production and payout makes it profitable to do so.

Coliform and thermaduric grades can be caused by old rubberware.

One of the reasons for having to change liners regularly in the USA is that they apply penalties if germs per ml exceed 100, while in some European countries the grade figure is 500 germs per ml.

Froth

Apparently, when it has been found that one lot of milk froths, and another lot doesn't, and the milks have been analysed, the chloride content of the frothing milk has been higher.

As we know, frothing and bloat usually go together, as does the high application of potash. Muriate of potash contains 48% chloride, so, when a farmer complains about frothing, he should be asked about his fertiliser programme, and whether he is using high amounts of potash, and enough salt (sodium chloride), and whether he is using them in balance with all other elements. Correct liming, fertilising and feeding minerals are essential.

I have never found any farm that needed more than 15% potassic fertiliser, while most apply 30% or greater. Some farmers think it is high octane, but there is no such thing.

When there is uncertainty, or a discrepancy of opinions, then a pasture analysis should be taken, and, if the potassium level is above 3% in the pasture, then trouble can be expected. Most potassium levels in the South Auckland area are well above 3. I recommend that it should be only 2.7, and the highest producing farm I know, producing 740 kg per ha, and 230 per cow, has an average potassium level of 2.3% in the pasture. In USA when feeding total mixed rations that are scientifically blending following decades of planning, the potassium added is only 1%, but pasture needs more to grow clovers.