

Milk Disposal

You may be in a position where your milk may need to be disposed of on your farm. Find out about your options below.

Land application

Milk can be applied directly to land. The following guidelines should be followed when applying milk to land (similar guidelines apply to the disposing of whey or any other liquid dairy products)

If you irrigate your effluent to land continue to add your milk to the effluent system and apply to land as you would with your effluent.

Dilute the milk with at least the same volume of water (i.e. 1 : 1 dilution) before applying it directly to land

- Dilutions up to 10 : 1 water to milk should be considered to reduce the possibility of odour problems and pasture damage
- Do not apply more than 50,000 litres of the diluted milk per hectare to pasture (i.e. 5 litres per square metre of land). Use as much land area as practically possible. If possible use land that can be worked following application
- Irrigate onto recently grazed pasture and following irrigation, flush with fresh water to rinse milk residues from foliage.

Do not apply milk to:

- Land within 20m of a drain or waterway
- Land close to public areas or neighbours where odour problems may arise
- Paddocks which are likely to flood, have steep slopes, are pipe drained or mole ploughed.

Under no circumstances should milk reach waterways.

Discharge to effluent ponds

Milk can be control-fed into a pond system, though land application is preferable to discharging to a waterway.

Odour problems may occur 5 days after milk has entered the system. Be aware that a mixture of milk and effluent can give off lethal or explosive gases. Do not mix them in confined spaces or buildings, or enter any enclosed effluent storage facility.

Properly designed 2-pond systems (adequate size and correct construction) can cope with milk from four consecutive milkings. After this, another option should be used, as additional milk will cause rapid deterioration in the quality of the discharge.

Ideally the treated effluent from the ponds should be spread onto land as soon as possible, (e.g. using a contractor) to reduce any impact on the receiving waterway.

Here are the following recommended disposal options:

- Using a slurry tanker spread the milk onto a paddock as if it was liquid fertiliser

- Set aside a paddock you intend to cultivate for a crop – e.g. Maize, and spread the milk onto the paddock. Take precautions to avoid runoff into waterways e.g. choosing a paddock that is flat, away from waterways, has a wide (20m) grassed margin between the application area and any drainage and streams
- If these options are not available to you, dig a ditch, preferably in an area where the water table is not high, and empty the milk into the ditch. Allow the milk to soak into the soil and cover the ditch with soil at a later date to avoid odour issues.

Please note in Northland your regional council does not recommend you discharge any milk into your oxidation ponds. They would prefer that where possible you apply to land and if this is not possible you dig an appropriate ditch as described above.

If you need help, contact your dairy company, the regional council or DairyNZ for advice.

Feeding milk to livestock

If at all possible, feed the surplus milk to livestock. Nutritionally, milk is low in dry matter content (i.e. approximately 13%), and is high in energy (i.e. 20 to 23 MJME per kg of DM), protein and fat.

Dairy cows can be fed up to 10 litres in a day. The milk could be fed via water troughs or spread on silage if it is suitably contained. The milk must be fit for purpose (i.e. must not contain antibiotics).

Calves can consume between 8 and 12 litres of whole milk per day before weaning. After weaning, up to 4 litres per day can replace 1 kg of concentrate feed. However, the use of milk should be limited to minimise the risk of digestive disorders. It should be introduced to the calves slowly, and be supplemented with digestible fibre-based feed to encourage proper rumen function. Ad-lib access to hay is advisable while milk is being fed.

Milk may also be transported to neighbours with piggeries or commercial calf rearers.

Milk is best fed consistently fresh or consistently sour to dairying stock. Souring in a storage facility can be prevented for up to one week by adding citric acid or acetic acid. Commercial yoghurt starters can also be used to make a coagulated yoghurt from the milk, and the yoghurt fed to stock. If in any doubt about the feeding of milk to stock, consult a veterinarian.