

Irrigation Information – Interface Chemistry

Key Points

- It is generally accepted that 3 irrigation application runs will apply 150kg/hectare of Nitrogen.
- 150kg N/hectare is an accepted maximum application for grazed dairy pasture within most NZ Regional Plans (always check your Regional Plan first).
- Many paddocks will need a number of irrigator passes (i.e. side by side) for full cover.
- If effluent is being irrigated from the storage system it will be diluted, so the full nitrogen allowance will not be applied during an irrigation run.

Keeping records

It is important to identify when all the runs in a paddock have been completed this would indicate one irrigation application under most regional plans.

If you are irrigating stored and probably diluted effluent and you are worried about nitrogen loads, collect a sample for analysis by a laboratory. The laboratory that tests your soil samples should be able to help with this. You may find you need to top up with nitrogen for the best growing results.

Types of records

- How many irrigator runs in a paddock.
- When the paddock has been irrigated, include the runs and when three complete irrigation passes have occurred.
- The dates of irrigation and by whom.
- Comments; i.e. if irrigated from storage system, any leaks breakdowns or other.
- When you test your irrigator performance, at least once per year.
- Upgrades to the irrigation system and repairs and maintenance, this can be considered a record of best practice for future reference.

Worthwhile modifications

Installing a high/low pressure detector in your irrigation line, ideally just after the pump and fitting a flashing red warning light, is a good addition to let staff know there is a problem.

- If you have a leak, pressure will drop and the detector will turn off the pump and the warning light will activate.
- If you have a blockage (e.g. at the irrigator nozzles), pressure will rise, turning the pump off and activating the warning light.

Fitting an automated storm water diversion system will save time and costs by reducing effluent volumes. SAFE at www.groundwater.co.nz is an example of an off the shelf system.

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Effluent irrigation for dry weather conditions

During wet conditions the easy option is to irrigate the dryer paddocks; you can run at higher application rates than for wetter paddocks so don't have to move the irrigator as often.

When dry conditions arrive, generally the dry paddocks have had all their maximum irrigation cover, so can't be irrigated for moisture. Think about irrigating the wetter paddocks at a faster irrigator speed (lower application rate) during wetter times, if this is possible so that dry paddocks benefit from the irrigation during dry periods.

Paddocks close to the shed can often be over utilised for irrigation and stock holding. As they are close to the shed its an easy option to use them during the cold and wet when you don't feel like going to the end of the farm. Remember to keep an eye on these paddocks.

