

Turning effluent into cash

By a Special
Correspondent

Mt Gambier and Warrnambool are like sister cities, having both beauty and function but like all siblings there are differences. Warrnambool is blessed with a reasonable rainfall and Mt Gambier is an area that needs constant irrigation.

Several farmers in the district believe it is God's little acre and some have flown from New Zealand for the privilege. Such are the likes of John Hunt who manages a dairy farm growing their own pasture and a bit more.

John Hunt is a thick set New Zealander with a beard, and a voracious appetite for farming. He lives, eats and breathes farming and almost knows all his cows by name.

John and his crew maintain what is called a low-cost option in paddock enrichment. "The cows need to be good converters of grass and we're trying to do that here as well as maintaining our pasture with a low-cost option," said John.

The Hunts cleverly optimised their paddocks to produce not only more pasture but by introducing higher yielding nutrients through a planned introduction of effluent to their irrigation endeavours.



John Hunt in front of the pond

By distributing through their irrigation systems they have been able to grow pasture with a whisker under 20 tonnes per Ha on the twenty seven hectares irrigated by Hard hose. The system feeds effluent from ponds into the irrigator, mixes with the water to produce a 'shandy' of effluent of about five percent to the rest of the water. The amount of effluent is adjustable with the variance determined by soil testing, periodically checked to ensure a quality feed for the cows.



The sprinklers must maintain a constant flow across the pasture and John says that with his use of the Bauer irrigator, it can keep up the flow rate of a pivot.

The Bauer Rainstar A3 is hard hosed and fitted with Bauer manufactured PE pipe in a length of 400 metres, with a pipe width of 55mm. It is a slow reverse sprinkler covering a wetted strip of up

to 70 metres wide and a maximum length of 400 metres, ample spread for most small area operations.

"This machine is well suited to our block especially as it allows us to input effluent into the system.

One person can operate the Rainstar A3 easily and safely due to the 180 degree swivel of the pipe reel, creating a second strip to be irrigated opposite the initial

run and thus actionable without altering the position of the unit, a saving in efficiency and labour costs. The reel turntable itself is made of hot dipped galvanized steel for strength and durability.

“Effluent is a resource — you want to use it, not get rid of it,” John says.



The farm’s effluent adjunct consists of a series of steps designed to separate the liquid from solids deposited by the cows at the milking shed. Ponds created by this gravity-fed system from the cows to the pump, can be emptied in six days which is done monthly during the irrigation season. “We don’t have to put on fertiliser, saving us a whopping \$17,000 per year for what we’d normally do,” explained John. But we do soil tests to confirm we’re right — and sometimes there are adjustments required to reduce potassium levels, commonly found in the cow’s by-product.

Rick, Mary, Belinda and John Hunt with the bike

John Hunt gained his experience in Ashburton, NZ’s north island, where he worked on dairy farms, became a stock agent and then sold farm chemicals, which when combined, says John, ‘gives him a better appreciation of low cost pasturing and obtaining better results with cows than people!’ Australia offers more opportunity for John and his family but you can’t persuade him away from his beloved New Zealand rugby team. New Zealand is a lot stricter than Australia in farming and particularly in the use of effluent and its



separation of solids and liquids. “Effluent is a resource — you want to use it, not get rid of it,” John says.

After the liquid is separated by being washed down from the milking stalls, it is deposited into the ponds, and later pumped out and recirculated to combine with the water before it is turned on at the irrigator end. Adjustment is simple as is the technology but the results are phenomenal. The Rainstar is thus pulled out ready, and when the valve is turned on, the combined liquid does its job by spraying vast areas of pasture, now proven to be not only cost effective, but a boon to quality pasture and good for the cows. The cows go through a genetic breeding program using bulls who are good converters of pasture-to-milk also working on good components. “We are low-input using between 400 & 700 kg per grain per cow, depending on the year. The cows have to work with a stocking rate of 4.5 cows/Ha. John emphasised the ‘great service he receives from Think-



Water, the dealers who sold him the equipment. “The project went well and on time, great help with setting up effluent.

Oamamaru Dairies has put in a second Rainstar for another property, designed with the effluent process in mind.

The track width of the sprinkler cart is adjustable from 1000–1500mm for added stability. Once the PE pipe has been fully retracted the system shuts off automatically. Speed control and layer compensation operate automatically too as soon as the irrigation run is completed, with the sprinkler cart mechanically lifted on to the pipe reel, the machine is thus ready for transport. It is a handy addition and does away with manual loading.

John and his wife Karen have become grandparents to Zavier from their daughter Melissa. They have one son Daniel about to marry Sam and a younger daughter Renae. They are happy with their new abode in Kongarong, and they have plans of continual improvement of their properties they look after.



High pressure water gun