

Dairy Effluent Management Assistance Project

The primary concern of the Dairy Effluent Management Assistance Project was to assist dairy farmers in the Mary River Catchment to meet effluent disposal guidelines set by two agencies, the Environment Protection Agency (EPA) and the Queensland Dairyfarmers Organisation (QDO), while still maintaining farm viability. The project aims to demonstrate the cost effectiveness of incentives for voluntary action as opposed to regulatory control.

The projects objectives are to improve the water quality within the catchment; to reduce the risk of algal blooms by decreasing nutrient entering surface and groundwater; to reduce municipal water treatment costs; and to minimise the impact of dairying on the fragile riparian and floodplain zones.

The Property and it's History

Located in the lower end of the Mary River Catchment, fifteen kilometres outside of the township of Gunalda, lies the 346-hectare property of Norm and Helen Stanton. Their dairy farm is one of the largest in the catchment and is located in the Tiaro Shire, bordering on the Mary River.

Norm and Helen have owned the property for 10 years after moving from their property at Strathpine on the Pine River. The Stanton family run approximately 270 milkers and the milking yards are approximately 195 metres from the Mary River.

Approximately one third of the total property is used for dairy grazing, while the rest of the dry country is used for grazing a herd of 80 beef cattle.



Above: Norm Stanton, landholder

Problems Faced by the Landholder

Effluent that sits in a paddock or flows into water has the potential to pollute the environment. In concentrated form this effluent has the potential to cause serious environmental problems. While the Environment Protection Act requires farmers to prevent the flow of effluent into waterways, the major on-farm problem of not managing effluent is a loss of a valuable resource which can improve farm productivity.

As the Stanton dairy was located reasonably close to the Mary River, it was imperative that improvements were made to their currently overloaded effluent system, which was simply "never going to do the job". A user-friendly system that requires little maintenance was needed to cut down the amount of time spent on this task.

Why undertake a grant project?

The Stanton family has received a Dairy Effluent Assistance Management Project Grant. Mr Stanton had two main objectives from the Dairy Effluent grant. He wanted to open up unimproved land for grazing, and meet the Quality Assurance guidelines by improving his existing effluent system.

By undertaking the Dairy Effluent Grant Mr Stanton was able to utilise effluent on pastures which weren't in the past being irrigated, while protecting the Mary River from occasional run-off from the dairy.



Above & Right: The Stanton Dairy Farm

What are the solutions?

IRRIGATOR'. This included an effluent pond (30×53×4m) with drainage from the dairy and connection to the existing irrigation system. The washdown is piped underground to the collecting pond and from there the effluent is distributed through the existing irrigation system to the grazing yards.

This pond system allows for effluent to be stored and disposed of when conditions are suitable and when time can be allocated to this type of work. The effluent is irrigated onto a 8ha block and a 29ha block via a hard hose irrigator system.

This work was conducted at a cost to the landholder of \$12 524 of in-kind labour and materials, along with a grant of \$3 000 from the Dairy Effluent Scheme.



Above: The dairy holding yards



Above: Effluent pond

What are the benefits?

The previous pond size was too small and spillage represented a threat to the Mary River. Basically it was “never going to do the job”. Also the time spent maintaining the previous system was too great. “Now it is just a matter of turning on the tap to allow the effluent to be distributed over the pastures – it is much easier now” said Mr Stanton.

The new system is cleaner and easier to use. Also with the bigger pond and a better system for irrigating, the likelihood of overflow into the Mary River is much reduced. The new effluent system also allows a larger area to be irrigated, and therefore opened up for improved pasture.

In today's modern society there is an increasing emphasis on the need for sound farming practices that have minimal environmental impact. Nutrients that enter waterways can result in reduced water quality and increased algal activity. In the medium term, continuous improvement of effluent management across rural industries will result in lower water treatment costs for towns such as Tiaro and Maryborough further downstream, as nutrient levels are reduced.

Left: Anaerobic breakdown in effluent pond

Below: Effluent pumped through mainline irrigators

Further Information

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