

# Integrated Effluent Management System Gets Reviewed

**Like a lot of dairy farmers, Steven & Leanne Wieland's business has grown over the past decade and their feeding system has changed from pasture based to partial mixed ration. Investment in a covered feedpad in 2013, along with growth in cow numbers has meant that the Wieland's have more cows, more concrete and therefore more wastewater.**

Their effluent management system which consists of a two-pond system, functioned quite well when it was first built. They irrigated out of the second pond using a Monoflow pump with application through a travelling irrigator. The results the Wieland's saw from the application of this nutrient-rich water astonished them, growing excellent ryegrass with a significant reduction in their granular fertiliser usage.

During 2013, an increase in herd size and an investment in a feedpad fitted with a flood wash system put a large amount of manure and wastewater in the effluent system. Investment in a slurry tanker to help with the increased amount of effluent initially worked well, but it became a larger job especially when ponds weren't maintained to keep grass and weeds away.

The floodwash on the feedpad worked effectively, with recycled wastewater being used to reduce water use. The feedpad also had sprinklers installed which meant greater cow intake and lower heat loads during summer. This provided great results for cow performance throughout hot periods. But the presence of residual feed left by cows and the larger amounts of faeces from the herd spending longer periods on the feedpad, meant the effluent ponds were starting to fail and it was becoming a big job to keep the system functioning.

Steven recently started to dry scrape manure off the feedpad to reduce the solids input into his first pond. Although it was a trial at first, his management decision was recently supported by accredited effluent designer, Ryan Francis from EnviroAg, in a farm visit and his subsequent report on the system. This gave Steven the confidence to continue with this management practice, along with the reassurance that no additional capital investment was needed at this stage.



*Field day participants listen to Mick O'Keefe discuss effluent management systems*

The report also put a dollar value on the pasture response that the Wieland's had visually seen through the application of effluent water and spreading solids. It was estimated that the second pond effluent had an equivalent fertiliser value of \$463 per ML and the sludge and solids from the feedpad estimated to have a value of \$6,734 per ML. Following this visit, the Wieland's feel more confident about how to manage their effluent system to maximise the benefits from this valuable fertiliser resource. ■■



*Wieland's second effluent pond with irrigation pump for distribution*

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**For more information regarding effluent management, please visit <http://www.dairyaustralia.com.au/Environment-and-resources/Soils-nutrients-and-effluent.aspx>**