NITROGEN HOT SPOTS

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Trials conducted by the FutureDairy team at Camden, NSW monitored nutrient movement around the dairy farm, revealing 'hot spots' of nitrogen surplus within the system – in specific locations and during certain times of the season.

FutureDairy project leader, Associate Professor Yani Garcia, said the trials – conducted by postgraduate student, Santiago Farina – found that nitrogen hot spots occur in places that cows congregate that don't have growing pastures or forages to use the nitrogen; for example laneways and feedpads..

"Cows excrete excess nitrogen in dung and urine. The amount of nitrogen excreted in a particular area is directly proportional to the amount of time the cows spend in each spot," said Associate Professor Garcia.

Left unmanaged, these hot spots represent a waste of money and potential risk to the environment.

For example the study measured 2 tonnes of N/year lost as excreta in the laneways on a 22ha farmlet.

"The good news is that relatively simple management practices can cut the level of nitrogen at these hot spots," he said.

A good place to start is with strategies to encourage cows to move away from laneways and into the paddocks where nitrogen in excreta can be recycled back into the soil.

"Examples include providing more water troughs and shade inside the grazing paddock. These will be good for animal welfare as well as the environment," Associate Prof Garcia said.

The Cool Cows website (www.coolcows.com.au) has practical information and design guidelines for installing water troughs and shade on dairy farms.

For more information, contact Associate Professor, Yani Garcia, FutureDairy, ph (02) 4655 0621 email sergio.garcia@sydney.edu.au or www.futuredairy.com.au

Photo: Use same photo (with different caption) as for 'Nitrogen efficiency): Click here to receive a high res image by automatic email: fdN2HotSpots@monkscom.com.au

Caption: Santiago Farina identified a number of nitrogen 'hot spots' on a dairy farm.