

# Cool Cows farmer case study

17 November 2010

## HEAD: Plan before you plant (680 words)

Mark and Lynne Peterson's cows don't get heat stressed, despite summer temperatures regularly reaching above 40 degrees Celcius for several days at a time at their 108ha dairy farm near Nathalia in Victoria's Murray Valley.

During the summer, the 130-cow herd has access to plenty of shade from trees in the paddocks and laneways. At the dairy, a cheap garden sprinkler system is used to wet the yard cement before milking. On extremely hot days it can be left on to spray water on waiting cows.

Water troughs in paddocks, laneways and at the dairy exit have been recently upgraded to ensure the cows don't get thirsty either.

Mr Peterson said the water troughs and yard sprinklers were fairly quick and easy to set up and the benefits virtually instant.

"Providing shade in the paddocks had the most impact but it involved more effort, cost and time. We learnt a lot through experience so we got better at planting trees as we went along," he said.

Over the past twenty years, the couple has planted 28,000 trees. In this article they share some of the lessons about the keys to establishing successful shelter belts.

Mr Peterson says it's worth spending some time planning before planting. In particular, consider starting by planting a portion of the farm first; think carefully about farm layout, especially paddock aspect and select species of trees that thrive locally.

### Xhead: Starting up

Planting trees on the whole farm is a long term project. A good way to start is to plant about 10-20% of the farm, preferably milker paddocks closer to the dairy.

"Even a few paddocks with good shade can make a big difference. When hot weather is forecast, juggle the paddock rotations so that the cows can spend the hottest days in shady paddocks," he said.

### Xhead: Paddock direction

Before going to the effort of planting trees for shade, it's worth looking at the farm layout, particularly the direction of paddocks. Paddocks that run north to south lengthwise are ideal. Trees can be planted on the long sides, allowing cows to access shade all day; simply by spending the morning in the eastern side of the paddock and moving to the western side in the afternoon.

The Petersons were fortunate that most of their paddocks ran north-south. A few paddocks running east-west were initially planted with trees on north and south of fencelines.

"Once the trees grew tall we found the paddocks running east-west didn't get enough sun in the winter which led to problems with pugging and pasture growth. These days we plant more shrubs

and fewer tall trees,” he said.

#### Xhead: Tree species

The Petersons were initially advised to plant tree species suited to timber milling such as flooded gum, spotted gum, red gum, blue gums and ironbark, with the view to generating additional income. But over time they’ve realised their primary aims are to provide shade for cattle and habitat to encourage biodiversity.

“We noticed that the indigenous tree species thrived and were better able to cope with local conditions than the species that were not found locally. So now we plant mostly species that grow naturally in our area, such as wattles, melaleuca, box trees and red gums,” he said.

“I’m often asked what species grow the fastest. I always say, the one you should have planted five years ago!” Mr Petersen said.

#### Xhead: Shade options

Dr Steve Little, who manages Dairy Australia’s Cool Cows program says that *shade is king* when it comes to managing heat stress in dairy herds.

“Paddock shade works really well for the Petersons. Their farm size and layout is well suited to shelter belts. And of course they started 20 years ago so now they get the full benefits,” Dr Little said.

However trees may not work in some situations, for example on farms using a hybrid feeding system where cows don’t graze paddocks over the summer but are fed a total mixed ration (TMR).

“Consider setting up a ‘cooling centre on the farm. For example by building a shade structure over the dairy yard or feed pad or by juggling the paddock rotation so cows are in a shady paddock on hot days.”

*For more about planting trees and other cooling options, visit [www.coolcows.com.au](http://www.coolcows.com.au) or refer to the Cool Cows booklet, available through Dairy Australia’s memberline ph 1800 004 377 or contact Steve Little 0400 004 841 email [slittle@dairyaustralia.com.au](mailto:slittle@dairyaustralia.com.au)*

Cool Cows is one of many examples of the dairy services levy at work. For more information on this project and other levy investments visit the Dairy Australia website [www.dairyaustralia.com](http://www.dairyaustralia.com)

**ENDS**



**Caption:** Shade is king: tree planting over the past 20 years means that Mark and Lynne Peterson’s herd can always find shade on hot days.

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## About Grains2Milk (background information for media)

The Grains2milk program provides dairy farmers with the training, resources and support they need to make better decisions about using grains and concentrates in their businesses. The program is funded by dairy farmers through Dairy Australia.