

10 Steps

Reducing the carbon footprint of Tasmanian dairy

8



# Keep Cows Comfortable and Plant Trees



Supported by:



**A healthy cow produces more milk for a similar emissions output. Any cow compromised by lameness, mastitis, heat/cold stress or poor feeding will compromise emissions efficiency and farm profitability.**

### **Animal welfare, good business management and emissions management**

Many parts of farming are like a jigsaw. Increasing climate variability and more climate extremes mean the jigsaw is constantly changing. So many things must come together to keep all cows in the herd performing at their optimum. It is attention to detail across all parts of the business that makes a difference: good stockmanship and gentle handling of the cows, good stock watering, laneway maintenance to avoid lameness, farm layout so cows aren't walking too far, calving pads for easier calving in wet conditions, shade structures to avoid heat stress, shelter to protect cows from cold winds, good record systems for tracking treated cows, vaccination programs, good bull management, monitoring body condition score, sprinklers in hot yards.... so many simple things make a big difference.

Farmers don't usually associate these things as reducing the emissions intensity on their farms, but caring for cows, good business management and emissions management go hand-in-hand. For some farms, it is important to consider if this can be achieved at scale. "Milk less cows, milk healthier cows" might be worth considering.





## Trees on dairy farms is a win for carbon, animal welfare, biodiversity, plus economic benefits

Trees on dairy farms provide shade, shelter, carbon sequestration, biodiversity and water quality benefits. The Economic Benefits of Shelterbelts ([EBONS http://www.basalttobay.org.au/projects/ebons](http://www.basalttobay.org.au/projects/ebons)) is an excellent report outlining the benefits of trees for shade and shelter. Some highlights from EBONS:

- Sheltered areas have up to 17% estimated increase in dairy milk production.
- On a 27°C day, unsheltered cows have 26% less milk production than shaded stock.
- Milk yields are depressed by cold at a rate of up to 1.34 kg per day (4% fat-corrected milk).

### Protect first, plant next

Planting trees takes time, money and commitment. While the carbon sequestration benefits begin immediately, it may be several years before trees provide good shade and shelter. **The golden rule is to first protect and conserve the existing bush on your farm. This is particularly important around waterways.**

Remnant bush areas should be fenced off from stock access. Fencing to keep wildlife off pastures might be required if you live in an area with high browsing pressure. Ongoing management for weeds and fire may be needed.

“

The trees and the bush just make it a nicer place to be for everyone, us, the cows and the native wildlife. ”

Suzanne Cowley,  
Mengha

“

The true meaning of life is to plant trees, under whose shade you do not expect to sit. ”

Nelson Henderson





## Planting trees on the farm

- Prevailing weather conditions should be taken into account in whole farm planning
- Plant to block out the cold or hot winds which can impact cow comfort
- Orientate shade plantings north-south where possible. Aim for 4m<sup>2</sup> of shade/cow at midday
- A single row of unfenced trees with no understorey will not grow well and will not be successful as a long term shade/shelter planting with multiple benefits
- Seek recommendations on suitable tree and shrub species from local nurseries. Local species will often perform best because they are adapted to the conditions. Local species should be used for riparian plantings. High fertility areas of the farm might not be suited to Australian natives. Deciduous trees will allow sunlight to penetrate through canopies and allow laneways to dry out quicker in the winter
- Planning and preparation is the key to a successful revegetation project. Generally autumn is the best time for planting, but spring might be better in regions with heavy frosts. Start planning your project 12-18 months out from planting - order the plants, control weeds and fence out the planting area
- Some plantings might require guards and additional fencing for protection from browsing animals
- Maintenance is needed in the first years of establishment, especially weed control
- Locate feed and drinking water 20-30m away from trees so that there is not a build up of manure

## Where to get more advice?

Private Forests Tasmania Tree Alliance can advise on design of farm forestry woodlots and shelterbelts. **ph. 1300 661 009** or [www.treealliance.com.au](http://www.treealliance.com.au)

## Tasmanian Nurseries

- Redbreast Plants, Flowerdale and Margate. Max Roberts. P: 0419 871 784. Native plants. [www.redbreastplants.com.au](http://www.redbreastplants.com.au)
- Lanoma Forest Nursery, Westerway. Richard Clark, P: 0438 254 376. Pine seedlings. [www.lanoma.com.au](http://www.lanoma.com.au)
- Forico Pty Ltd, Somerset Nursery P: (03) 6435 0755. Plantation and native seedlings.
- Hills Transplants, Don. Pines and eucalypt seedlings. P: (03) 6424 8796. Plantation seedlings.
- Sustainable Timber Tasmania nursery, Perth, P: (03) 6398 7000. Plantation and native seedlings. [www.sttas.com.au](http://www.sttas.com.au)
- Woodlea Nursery, The Sideling, Scottsdale. P: (03) 6352 7262 Plantation and native seedlings. [www.woodleanursery.com.au](http://www.woodleanursery.com.au)
- Conservation Volunteers Understorey Network Nursery. P: 03 6231 1779. Native plants. [www.understorey-network.org.au](http://www.understorey-network.org.au)
- Rock Hill Estate, Ellendale. Todd Rayner, P: 0418 881 124. Open rooted pine seedlings
- Oldina Nursery, Oldina. Jim Mcleoad P: 0417391417 <https://www.facebook.com/Oldina-Nursery-749185258432701/>. Native plants
- Habitat Nursery, Liffey. Herbert Staubman, P: 0408 973 400. [www.habitatplants.com.au](http://www.habitatplants.com.au) Native plants

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