



Stock (cattle & horses): Increase your productivity

How? Shelter! Shelter! Shelter!

Strategically placed shelterbelts have many farm productivity benefits:

- protecting livestock from cold winds, rain, frost or heat stress in summer
- helping prevent soil erosion, nutrient loss and salinity
- conserving soil moisture, which extends the pasture growing season
- reducing bio-security hazards to stock from neighbouring land
- providing firewood, posts, timber, fodder, honey and homes for insect eating birds
- acting as a firebreak
- increasing medium to long-term land values

Shelterbelts can be:

- A filter to reduce wind force while allowing some air movement. The height of the shelterbelt determines the size of the sheltered area; taller trees protect a greater area.
- Grassed shelters that can reduce wind chill.
- North-south facing hedges offering the best protection.
- A tree only shelterbelt which provides shade on hot days and will reduce some wind chill but is not as effective as trees and shrubs.
- A single tree in a paddock which can create adequate shade on hot days but will not reduce wind chill.



Shelter benefits:

- ✓ Through reducing the level of exposure of stock and pastures to harsh conditions, shelterbelts can improve the productivity levels of a livestock enterprise. One of the most important roles a shelterbelt can play is the prevention of the death of livestock due to exposure during harsh weather conditions.
- ✓ Shelterbelts do this by providing shelter and reducing the effects of 'wind chill'. Wind chill is the combined effect of low temperatures and wind. The wind increases the loss of body heat from the livestock. During wet conditions the impacts of wind chill combined with wet stock can be lethal.



Shelter benefits:

- ✓ The provision of shelter can reduce the effects of hot, cold and windy conditions. The energy stock would normally expend on maintaining their body temperature can then be utilised for increased wool, meat and milk production.
- ✓ Higher rates of pasture productivity and lower amounts of energy expended on body temperature maintenance by stock can lead to higher levels of condition, higher birthing rates, higher stocking rates and/or lower requirements for supplementary feeding.
- ✓ The provision of shade research has found that cattle within sheltered paddocks have an average 2% higher calving rate and that the amount of feed required to maintain body temperature is substantially reduced.
- ✓ In serious droughts, the foliage from shelter belts (lucerne trees and salt bush plants) can be harvested and used to feed stock. Use of appropriate tree species may encourage bees, especially in early spring, and predators or parasites of crop pests. Shelter belts also provide habitats for birds, and native trees may attract native birds.



For information about potential incentives to plant trees and shrubs for shelterbelts contact the Goulburn Broken CMA on 5822 7700 or via our website www.gbcma.vic.gov.au

References:

Linden (2015) *Profitable biodiversity assets – making \$ from the shade and shelter on your property.*

The Economic benefits of native shelter belts report by Basalt to Bay Network issue 3/2015

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Shelterbelts for Livestock Productivity Note number: LC0138, October 2009 Agriculture Victoria

<http://agriculture.vic.gov.au/agriculture/livestock/sheep/victorias-sheep-meat-and-wool-industry/sheep-health-andwelfare/shelterbelts-for-livestock-productivity>

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<http://www.teara.govt.nz/en/shelter-on-farms/page-2>

