

Pasture and crop: Increase your productivity

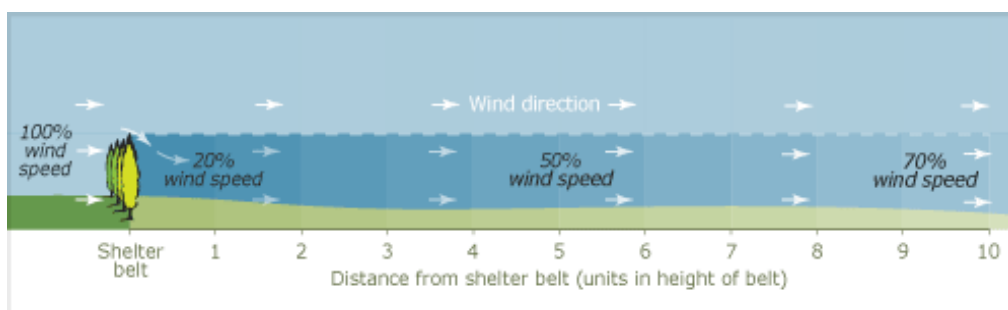
How? Shelter! Shelter! Shelter!

Strategically placed shelterbelts have many farm productivity benefits:

- helping prevent soil erosion, nutrient loss and salinity
- conserving soil moisture, which extends the pasture growing season
- 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.



The best shelter belt is moderately permeable, so some wind flows through as well as over the trees. Effective shelter will be provided on the lee side for about 10 times the height of the shelter belt.



Shelter benefits:

- ✓ Planted shelter belts slow down the wind. This reduces moisture loss from soil and plants in summer and autumn, and helps delay the effects of drought. It limits buffeting of fruit, shoots and flowers by strong wind, and makes it easier for insects to pollinate plants.
- ✓ Depending on crop type, soil moisture levels, rainfall and wind speed, sheltered crops may produce 5–15% more than those without shelter.
- ✓ Shelter belts around orchards help reduce drift of horticultural sprays to about 12% of that from unsheltered areas.
- ✓ As well as enhancing productivity, shelterbelts can improve the sustainability of a farm through reducing erosion and the impact of salinity.
- ✓ Shelterbelts can improve the aesthetic and capital value of a property as well as providing an improved working environment.
- ✓ Through reducing the level of exposure of pastures to harsh conditions, shelterbelts can improve the productivity levels of a livestock enterprise.



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:

- The Economic benefits of native shelter belts* report by Basalt to Bay Network issue 3/2015
Economic Development, Jobs, Transport and Resources
website <http://agriculture.vic.gov.au/agriculture/farm-management/soil-and-water/erosion/shelterbelts-for-control-of-wind-erosion>
- 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-and-welfare/shelterbelts-for-livestock-productivity>
- Gillingham, Allan 'Shelter on Farms - Benefits of *shelter*', Te Ara – The encyclopedia of New Zealand,
<http://www.teara.govt.nz/en/shelter-on-farms/page-2>

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