



# Windbreak Cloth

## Standard or Heavy Duty



*Windbreak Cloth is designed to reduce the effect of wind inside the area protected. Great for protecting crops and trees from wind damage, creating temporary work site barriers or a relaxing area around the BBQ.*

Windbreak cloth can be installed on frames, poles, posts and wire structures.

### Applications:

- Construction site fencing
- Boundary fencing
- Temporary fencing
- Seasonal fencing
- Fencing off newly grassed areas
- Protecting horticultural plantations

### Specifications:

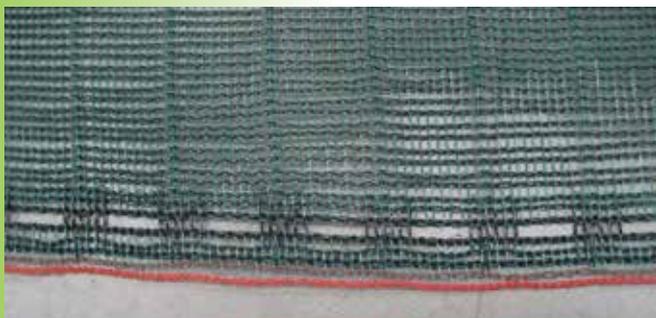
- Available in green or black
- Heights from 0.91m to 3.66m
- Sewn in fabric eyelets
- UV stabilised
- Attach using nail plates to posts and butterfly clips to crosswires

#### Standard

- Weight 110gsm
- Wind porosity 65%
- Lifespan 5-7 years

#### Heavy Duty

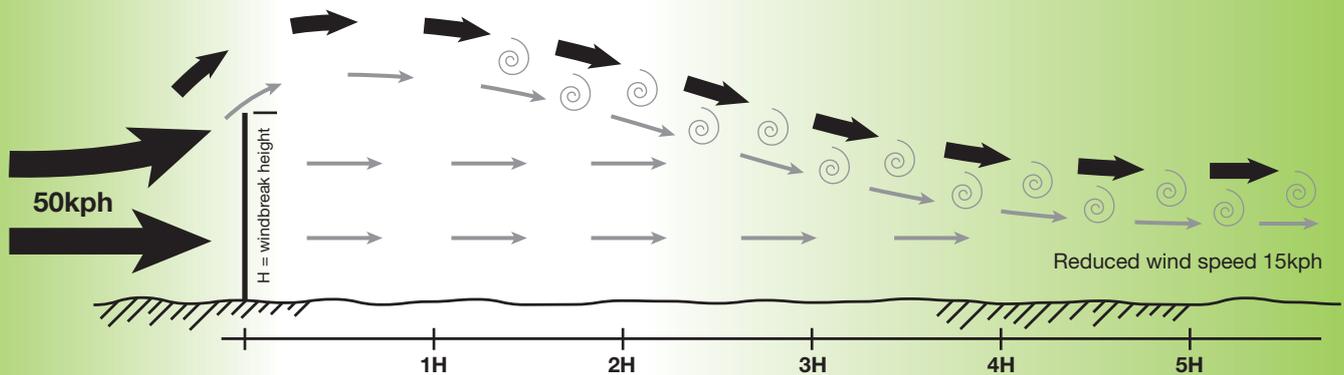
- Weight 140gsm
- Wind porosity 45-55%
- Lifespan 10+ years



Sewn in fabric eyelets

Supplied by

# Effects of Windbreak on Wind Speed



In essence, when the wind encounters a porous obstacle such as a windbreak or shelterbelt, air pressure increases (loosely speaking, air piles up) on the windward side and (conversely) air pressure decreases on the leeward side. As a result, the airstream approaching the barrier is retarded, and a proportion of it is displaced up and over the barrier, resulting in a jet of higher wind speed aloft. The remainder of the impinging airstream, having been retarded in its approach, now circulates through the barrier to its downstream edge, pushed along by the decrease in pressure across the windbreak's width; emerging on the downwind side, that airstream is now further retarded by an adverse pressure gradient, because in the lee of the barrier, with increasing downwind distance air pressure recovers again to the ambient level. The result is that minimum wind speed occurs not at or within the windbreak, nor at its downwind edge, but further downwind - nominally, at a distance of about 3 to 5 times the windbreak height  $H$ , or up to 15 times dependent on what is planted behind the windbreak. Beyond that point wind speed recovers.

Not only is the mean (average) wind speed reduced in the lee of the shelter, the wind is also less gusty, for turbulent wind fluctuations are also damped. As a result, turbulent vertical mixing is weaker in the lee of the barrier than it is upwind, and interesting secondary microclimatic effects result. For instance, by day heat rising from the ground due to the absorption of sunlight is mixed upward less efficiently in the lee of a windbreak, with the result that air temperature near ground is somewhat higher in the lee than on the windward side.



Standard 110gsm



Heavy Duty 140gsm



Butterfly clips



Nail plates