PLANTS SUITABLE FOR GUADALUPE

Revised April 2008

Adaptable to sandy dune soils and moderate to extreme windy conditions

Plants marked with an asterisk ("*") are also adaptable to the heavy, clay soils scattered throughout Guadalupe
Plants lined out have been removed from the list because of their invasiveness.

Windbreaks --
(Trees and large shrubs to plant where the wind is at its absolute worst)

*Acacia longifolia**	COAST WATTLE	
~~*Albizia distachya (A. lophantha)*~~	~~PLUME ALBIZIA~~	(invasive)
Allocasuarina verticillata	DROOPING SHE-OAK	
Banksia praemorsa	CUT-LEAF BANKSIA	
Banksia verticillata	GRANITE BANKSIA	
*Callistemon viminalis**	WEEPING BOTTLEBRUSH	
Casuarina cunninghamiana	SHE-OAK	
Casuarina equisetifolia	HORSETAIL TREE	- potentially invasive, not for use adjacent to open space or natural areas
*Casuarina glauca**	BLUE SHE-OAK	
Cistus x skanbergii	HYBRID ROCK ROSE	
Cupressus arizonica	ARIZONA CYPRESS	
Cupressus macrocarpa	MONTEREY CYPRESS	- potentially invasive, not for use adjacent to open space or natural areas
Eucalyptus conferruminata (E. lehmannii)	BUSHY YATE	
*Eucalyptus robusta**	SWAMP MAHOGANY	
Hakea adnata	RUSTY HAKEA	
Lavatera assurgentiflora	TREE MALLOW	
~~*Leptospermum laevigatum*~~	~~AUSTRALIAN TEA TREE~~	
Leptospermum scoparium	NEW ZEALAND TEA TREE	
*Melaleuca nesophila**	WESTERN TEA MYRTLE	
*Melaleuca quinquenervia**	PUNK TREE	- potentially invasive in wetland areas, not for use adjacent to wetlands or riparian areas
Melaleuca styphelioides	BLACK TEA TREE	
Pittosporum crassifolium	KARO	
Rhus integrifolia	LEMONADE BERRY	
*Westringia fruticosa**	COASTAL ROSEMARY	

Large Trees --
(not for areas of strongest wind unless also listed under windbreaks)

*Araucaria bidwillii**	BUNYA-BUNYA
Casuarina cunninghamiana	SHE-OAK
Casuarina equisetifolia	HORSETAIL TREE
Cupaniopsis anacardioides	CARROTWOOD
Cupressus macrocarpa	MONTEREY CYPRESS
*Eucalyptus robusta**	SWAMP MAHOGANY
*Lophostemon (Tristania) confertus**	BRISBANE BOX
Pinus attenuata	KNOBCONE PINE
Pinus contorta	SHORE PINE
Pinus nigra maritima	CORSICAN PINE

Small Trees --
(not for areas of strongest wind unless also listed under windbreaks)

*Agonis flexuosa**	WILLOW GUM
Albizia distachya (A. lophantha)	PLUME ALBIZIA
Arbutus 'Marina'	HYBRID STRAWBERRY TREE
*Banksia integrifolia**	COASTAL BANKSIA
Banksia serrata	SAW BANKSIA
*Callistemon viminalis**	WEEPING BOTTLEBRUSH
*Chamaerops humilis**	MEDITERRANEAN FAN PALM
Eucalyptus leucoxylon	WHITE IRONBARK
Eucalyptus polyanthemos	SILVER DOLLAR GUM
Eucalyptus pulverulenta	SILVER-LEAVED MOUNTAIN GUM
Geijera parviflora	AUSTRALIAN WILLOW
*Lagunaria patersonii**	QUEENSLAND PYRAMID TREE
Leptospermum laevigatum	AUSTRALIAN TEA-TREE
*Leptospermum petersonii**	LEMON-SCENTED TEA-TREE
Livistona australis	AUSTRALIAN PALM
*Melaleuca armillaris**	BRACELET MYRTLE
*Melaleuca quinquenervia**	PAPERBARK, PUNK TREE
*Melaleuca styphelioides**	BLACK TEA TREE
*Melia azedarach**	CHINABERRY
Metrosideros excelsa	NEW ZEALAND CHRISTMAS TREE
Phoenix theophrasti	CRETAN DATE PALM
Pistachia lentiscus	MASTIC
Pittosporum crassifolium	KARO
Rhus lancea (standard)	AFRICAN SUMAC
Salix lasiolepis (standard)	ARROYO WILLOW
*Tristaniopsis laurina**	WATER GUM
Yucca aloifolia	SPANISH BAYONET
Yucca gloriosa	SPANISH DAGGER

Spreading shrubs, Ground Covers, Vines --

Arctostaphylos pumila	DUNE MANZANITA
Arctostaphylos uva-ursi (especially 'Emerald Carpet', 'Point Reyes')	BEAR-BERRY
Artemisia stelleriana 'Silver Brocade'	BEACH WORMWOOD
*Baccharis pilularis** 'Santa Ana', 'Twin Peaks'	DWARF COYOTE BRUSH
Banksia blechnifolia	TRAILING BANKSIA
Capparis spinosa inermis	CAPER BUSH
Ceanothus griseus horizontalis 'Yankee Point'	CALIFORNIA LILAC
Cerastium tomentosum	SNOW-IN-SUMMER
Coprosma x kirkii*	TRAILING COPROSMA
Drosanthemum floribundum	ROSEA ICEPLANT
Epilobium (Zauschneria) canum	CALIFORNIA FUCHSIA
~~*Erigeron karvinskianus*~~	~~SANTA BARBARA DAISY~~ (invasive)
*Ficus pumila**	CREEPING FIG
Gazania rigens leucolaena	TRAILING GAZANIA
Grevillea crithmifolia	SPREADING GREVILLEA
Grevillea lanigera 'Coastal Gem'	SILVER SPIDER FLOWER
~~*Hedera helix**~~	~~ENGLISH IVY~~ (invasive)
Hibbertia scandens	GUINEA GOLD VINE
Juniperus conferta	SHORE JUNIPER
*Kennedia rubicunda**	DUSKY CORAL PEA
Lampranthus productus	PINK ICEPLANT
Lampranthus spectabilis	SHOWY ICEPLANT
Lantana montevidensis	CREEPING LANTANA
Lathyrus japonicus	JAPANESE SHORE PEA
*Lathyrus latifolius**	EVERLASTING PEA
Leucophyta (Calocephalus) brownii	CUSHION BUSH
*Myoporum parvifolium**	SPREADING SANDALWOOD
Pelargonium peltatum	IVY GERANIUM
Pinus contorta 'Wilson's Weeper'	TRAILING SHORE PINE
*Phyla nodiflora**	LIPPIA GRASS
*Rosa banksiae**	LADY BANKS ROSE
Rosmarinus officinalis prostrate forms	TRAILING ROSEMARY
Scaevola aemula	BLUE BEACH BERRY
Sedum spp.	SEDUM
Tanacetum douglasii	CALIFORNIA BEACH TANSY
Vitex rotundifolia	BEACH CHASTEBERRY

Lawns (and low grasses) --

~~*Cynodon dactylon**~~	~~BERMUDA GRASS~~ (invasive)
Distichlis spicata (to mow a few times a year)	SALTGRASS
Paspalum vaginatum 'Excalibre' (lawn; to mow)	ADALAYD GRASS

Winter/spring naturalizing annuals --
For fall-winter sowing

Calendula officinalis	POT MARIGOLD
*Clarkia bottae**	BOTTA'S GODETIA
Echium platagineum	BUGLOSS
Eschscholzia californica maritima	SHORE CALIFORNIA POPPY
Gilia capitata	THIMBLE GILIA
Lasthenia chrysotoma	COMMON GOLDFIELDS
Layia platyglossa	TIDY TIPS
Limonium sinuatum	ANNUAL STATICE
*Lobularia maritima**	SWEET ALYSSUM
Lupinus bicolor	ANNUAL LUPINE
Lupinus hirsutissimus	RED LUPINE
Lupinus nanus	DWARF LUPINE
Malcomia maritima	VIRGINIA STOCK
*Matthiola incana**	STOCK
Matthiola longipetala bicornis	NIGHT-SCENTED STOCK
*Nemophila menziesii**	BABY-BLUE-EYES
*Scabiosa atropurpurea**	PINCUSHION FLOWER

AREA COMMERCIAL WHOLESALE SOURCES OF SPECIALIZED PLANT MATERIAL

Australian Natives Nursery
Jo O'Connell, President
9040 North Ventura Road
Casitas Springs, CA 93001
805-649-3362, F: 805-649-4080, e: ausnat@west.net

Las Pilitas Nursery
Bert Wilson, President
3232 Las Pilitas Rd.
Santa Margarita, CA 93453
805-481-5992, e: frontpage@laspilitas.com

Native Sons Nursery
Dave Fross, President
379 W. El Campo Road
Arroyo Grande, CA 93420
805-481-5996, F: 805-489-1991, e: dfross@nativeson.com

San Marcos Growers
Randy Baldwin, General Manager
125 South San Marcos Road
Santa Barbara, CA 93111
805-683-1561, F: 805-964-1329, e: sales@smgrowers.com

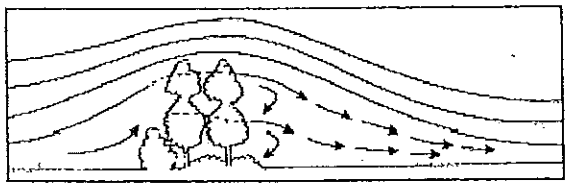
Sommers Wholesale Nursery
Stephen Sommer, President
1110 Paseo Almendra
Templeton, CA 93465
238-4245, F: 239-4006, e: nursery@thegrid.net

Design factors

To be effective, a windbreak needs to be carefully designed to incorporate the following features.

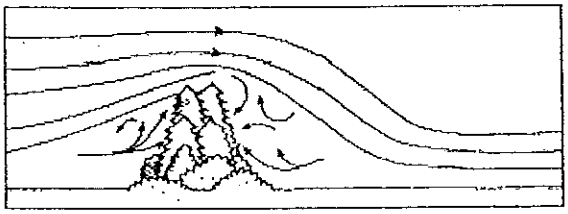
Permeability

Permeable windbreaks that let wind filter through them provide a greater zone of protection than solid ones. They are ideal for general protection of animal enclosures.



A permeable windbreak

Dense windbreaks that block all wind cause the greatest reduction in wind speed, but their effect is restricted to a narrow zone behind the break and they may cause considerable turbulence further down-wind. They may be useful however, for small areas needing special shelter -- for example, around buildings.



A dense windbreak

Height

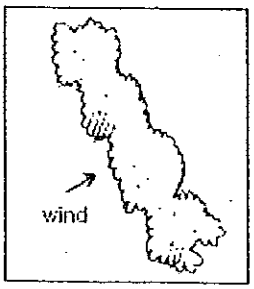
The higher the windbreak, the greater the zone of protection. On level ground a windbreak will reduce the speed of the wind for a distance of up to 25 times the height of trees in the windbreak. Maximum wind reduction is in the zone 5 to 15 times tree height away from the windbreak.

Length

As wind will swirl around each end of a windbreak, it will be most effective when it stretches for some distance without a break. If a windbreak is too short, wind is deflected around it leading to increased wind speed at the ends. Doubling the length of a windbreak can increase the protected area by up to four times. Minimum windbreak lengths should ideally be around 500 to 700 feet (200 meters).

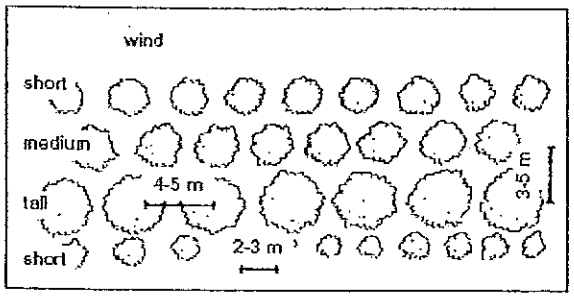
Orientation

Windbreaks should ideally be aligned at right angles to the direction of the main problem-causing winds.



Formation

Multiple row windbreaks are generally more effective than single row windbreaks. Although single row windbreaks can be effective if the tree species used have fairly dense foliage and retain it to the ground (e.g. pines, she-oaks, melaleucas), they have the disadvantage that if one tree dies a gap is created which reduces the effect of the whole windbreak. They may, however, be useful if space is very limited.



Windbreaks of between three and five rows are effective for most farming situations and are less affected by gaps caused by missing trees. A variety of tree species can be used, with a range of sizes, shapes and foliage. The combination of different rows can be used to create a permeable barrier from ground level up to the height of the tallest trees. Tall- growing trees are generally best in the center rows with smaller bushy trees and shrubs on the outside rows. In drier areas, two or three rows are sufficient. With any more than this, the inner rows will suffer severely from competition for moisture.

Another approach sometimes used for wider multiple row windbreaks is to plant the trees in a more scattered pattern rather than in strict rows. Trees and shrubs of different types are mixed across the area of the windbreak to create an overall effect of a permeable barrier. This approach can be beneficial where the windbreak is meant to also provide a wildlife corridor or habitat.