

# TECHNICAL NOTES

U S Department of Agriculture

Natural Resources Conservation Service

TN - PLANT MATERIALS - CA-50

September 1997

## FINAL REPORT WINDBREAK PLANTING ANTELOPE VALLEY RCD NURSERY

The Lancaster Windbreak Field Evaluation Planting (FEP) was established at the Antelope Valley RCD Nursery during Fiscal Years 1980, 1981, and 1982. Species used in this FEP are commercially available. There was a total of **63** species planted over the three years.

After 15 to 17 years of evaluations, we have determined the 11 best performing species. This was determined based on the survival rate, vigor, plant height, and canopy width. The site is in Los Angeles County west of Lancaster in Major Land Resource Area (MLRA) 30, almost adjacent to MLRA 29.

Over the life of the FEP, there has been random watering and cultivation. From 1989 to 1997 there has been no watering and minimal cultivation. The survival and vigor of a given species has been dependent on the species ability to adapt to the high desert environment in the Lancaster area. During the past 3 years all species at this FEP have suffered greatly from the lack of water and cold winters.

Although species on the following list had stunted growth, limb die-back, and frost damage; under the conditions of the study, these species were good performers and can be recommended as windbreak species. The *Pinus*, *Cupressus*, and *Juniperus* species appear to have been least affected by the environment.

*Pistacia vera* was an outstanding performer. Because of the white bark, green foliage, and red seed, *Pistacia vera* may be an appropriate xeric landscape plant.

*Pinus sabiniana* and *P. coulteri* had a very open form and may need to be planted in multiple rows to make an effective windbreak.

*Juniperus virginiana*, *Juniperus communis*, and *Elaeagnus pungens* are shrubs or shrub-like under the conditions grown. These species could be used in a multiple row windbreak or in a xeric landscape.

The species listed on the following chart are best suited to MLRA Subareas 17f, 17g, 18e, 20e, 29f, and 30g. Special care and watering will be required for establishment, optimum growth, and plant health.

## BEST PERFORMING SPECIES

Scientific Name	Common Name	Acc. No.	Height (feet)	Canopy (feet)
<i>Cupressus arizonica</i> .....	Arizona Cypress .....	9021085 .....	18 .....	12
<i>Elaeagnus pungens</i> .....	Silverberry .....	9026962 .....	6 .....	6
<i>Gleditsia triacanthos</i> ...	Honey Locust .....	9021089 .....	20 .....	4
<i>Juniperus virginiana</i> .....	Skyrocket Juniper .. Eastern Red Cedar	9026974 .....	10 .....	8
<i>Juniperus communis</i> .....	Common Juniper .....	377822 .....	6 .....	3
<i>Pinus brutia</i> .....	Brutia Pine .....	9021097 .....	31 .....	20
<i>Pinus halepensis</i> .....	Aleppo Pine .....	9021100 .....	30 .....	17
<i>Pinus sabiniana</i> .....	Digger Pine .....	9021105 .....	32 .....	18
<i>Pinus coulteri</i> .....	Coulter Pine .....	9021099 .....	21 .....	18
<i>Pistacia chinensis</i> .....	Chinese Pistachio ..	9021106 .....	10 .....	10
<i>Pistacia vera</i> .....	Pistachio .....	9042514 .....	15 .....	10