

LAND MANAGEMENT

CONSERVATION TREES

Matsudana willow (*PMC 227 Safix matsudana*)

Main points

- rough bark
- some drought tolerance
- may split in very windy conditions
- fast growth

Description

Salix matsudana develops into a spreading, multi-leader tree 15-20 m high. The bark becomes very rough by 5 yrs and the foliage is attractive with long (9.5-12 cm) narrow leaves. NZ clone has female catkins only. Spring bud break begins in early August and leaves fall by the end of May.

Site tolerances

Grown widely throughout New Zealand, but grows best where soil moisture is high (not stagnant water) throughout the summer. Once established, *S. matsudana* can withstand drought conditions better than most *S. matsudana* x *alba* hybrids.

Uses

- Soil conservation - has been widely planted for soil conservation since the arrival of poplar rust. It establishes well on a wide range of sites from wet gullies to upper hill slopes, provided summer rainfall is adequate.
- Shelter - used for farm and horticultural shelter but needs regular side trimming.
- Fodder - livestock can be fed on leaves which are very palatable and a valuable source of emergency feed during droughts. Leaves are harvestable until mid-late May.

Establishment

Very easy to grow from poles or cuttings of all sizes. Small cuttings (<1 metre) should have good moisture and weed control to establish

well. Poles 2-3 m long have better reserves because of their larger diameter. Soil moisture is also less critical.

Where cattle are grazed, only 3 m length poles should be planted and cattle should be removed for at least 1 yr following planting. The rough bark enables large diameter poles (75 - 100 mm plus) to be planted without sleeves in some situations. However, this should be carefully managed.

Management

Trees grown from poles produce multiple leaders. This in combination with the very dense timber appears to be the cause of breakage and splitting of trees in very windy areas. The problem may be prevented by pruning to leave a single leader after 2-3 years growth. If grown in a shelterbelt, regular trimming will also overcome the problem.

Pests and diseases

Lemon tree borer often attacks *S. matsudana* without ill effect, but late spring flights of grass grub and manuka beetle can severely defoliate isolated trees. They usually recover quickly. *S. matsudana* is palatable to possums. Damage is controlled by either protecting the tree using one of several sleeve designs or direct possum control.

For further information

For information on planting poplars or willows, ask for the other titles in this series or contact Hawke's Bay Regional Council Land Management Officers for advice.

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