

Argentina

Select

In Argentina, citrus is grown primarily as fresh fruit for the export market. In the northeastern part of the country, growers have been contending with canker for many years and use living windbreaks extensively for not only canker management, but for windscar reduction. The primary plant species used as a windbreak is Casuarina cunninghamiana, but growers also have experience with Eucalyptus. In the northwestern part of Argentina where lemons are the major crop, canker is relatively new to the area and windbreaks are not as important.

(Photos provided by Cecil Taylor, Florida growers who have visited Argentina)



Fig. 1. A young windbreak combination of Eucalyptus trees (left) and Casuarina cunninghamiana trees (right).



Fig. 2. Citrus trees planted very close to established Eucalyptus windbreak trees.



Fig. 3. A windbreak of *Cupressus lambertiana* (a.k.a. *Cupressus macrocarpa*?). This plant is not well known in Florida and while it has some desirable traits, it apparently is susceptible to cypress canker.



Fig. 4. A double offset row of 2-year-old C. cunninghamiana trees.



Fig. 5. An older windbreak of Eucalyptus trees.



Fig. 6. A windbreak arrangement in which Eucalyptus trees are used in "perimeter" locations and the interior windbreaks are *C. cunninghamiana*.



Fig. 7. Older trees of C. cunninghamiana interplanted with citrus trees.



Fig. 8. A different windbreak planting arrangement whereby pairs of *C. cunninghamiana* trees are planted at the ends of rows. Such an arrangement may be practical in Florida's flatwoods bedded groves where limited space is available along lateral drainageways.



Fig. 9. Another view that shows the end-of-the-row arrangement illustrated in Fig. 8 and the nearby use of Eucalyptus trees around the perimeter of the block.



Fig 10. A young seedling of C. cunninghamiana after 3 months after sowing the seed.



Fig. 11. In some instances, Elephant grass (or Napier grass as it is also known as in Florida) has been used as a windbreak.



Fig. 12. An established windbreak of slash pine interplanted with new trees of *C. cunninghamiana*. The likely intention of the grower is to eventually remove the pine trees.



Fig. 13. A windbreak combination of bamboo (front) and Eucalyptus trees (rear). Bamboo is not considered particularly useful because the plants form thickets that are too dense and block too much wind.



Fig. 14. A *C. cunninghamiana* windbreak planted very close to a row of citrus trees without any obvious effect on tree development by comparison to the nearby rows of citrus trees.

Fig. 15. Female Casuarina cunninghamiana trees with copious quantities of seed cones. Photo provided by Héctor Zubrzycki.

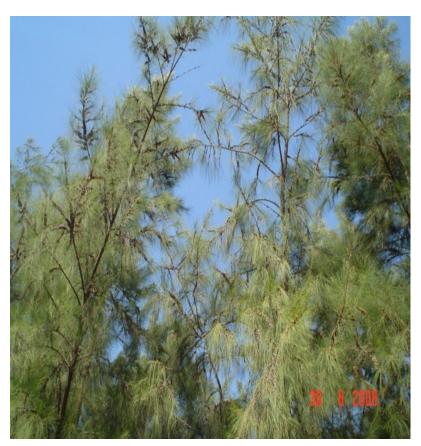


Fig. 16. Female Casuarina cunninghamiana trees with copious quantities of seed cones. Photo provided by Héctor Zubrzycki.



Fig. 17. Female Casuarina cunninghamiana trees with copious quantities of seed cones. Photo provided by Héctor Zubrzycki.