

Windbreak Design: Fresh Perspectives
and Innovation



OVERVIEW

Pacific Islands windbreaks

NRCS windbreak practices

Benefits of windbreaks

Threats to windbreaks

Selection of windbreak trees

Windbreak basics

Group discussion

WINDBREAKS AND SHELTERBELTS

- **Common practice with a long history in the Marianas**
- **Provide important ecological and productivity benefits**
- **Offer endless opportunities to support multi-species barrier plantings (ecological and economic diversification)**

Please refer to the Windbreak/Shelterbelt Establishment Standard (380) included in the handouts

WINDBREAKS AND SHELTERBELTS

- **There are three different NRCS Standards addressing wind or wind related damage as a primary purpose**
 - **Windbreak / Shelterbelt Establishment (380)**
 - **If you don't already have one**
 - **Windbreak / Shelterbelt Renovation (650)**
 - **If you want to fix / improve the one you already have**
 - **Herbaceous Wind Barriers (603)**
 - **Herbaceous species on crop land**

Please refer to the Windbreak/Shelterbelt Establishment Standard (380) included in the handouts

THREATS TO WINDBREAKS

- typhoons**
- poor establishment**
- lack of proper maintenance**
- selection of wrong species**
- pests and diseases**

There is flexibility and a lot of options, but you need to be clear on goals and objectives and to plan ahead.





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Ironwood

Ifit



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WINDBREAK BASICS (eins)

- **Use high quality planting stock**
- **Prepare a proper planting hole**
- **MULCH, irrigate and fertilize during establishment phase**

WINDBREAK BASICS (zwei)

- **Plan for 50- 80% density**
- **Plan for future expansion to include second or multiple row or to include an understory minor forest product**
- **Protect from pests and fire**

WINDBREAK BASICS (drei)

- **Replace dead plants ASAP**
- **Keep bush cutters away**
–AND.....
- **MULCH... constantly for first 3 years**

A CALL TO FURTHER ACTION FOR CRAIG E.

With a SARE grant, Josiah gathered a wealth of information about the profit-making potential of trees on farms and taught farmers about how to grow and market new products like berries, nuts, and woody florals in conservation plantings.

“Instead of considering a windbreak or streamside buffer strip as land taken out of production, why not make it a new profit center?” Josiah said.

- **[For more information about this SARE project, go to snr.unl.edu/forestry/specialtyforestproductsintro.htm or go to www.sare.org/projects and search for LNC01-197 and ENC00-054.]**

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GROUP DISCUSSION POINTS

**What are some design innovations we can use for
PIA small farms and ranches??**

- **Minor forest products opportunities**
 - **Bee forage**
 - **Fiber**
 - **Mulch**
 - **Food**
 - **Wildlife**
 - **Cultural/medicinal**
 - **Landscape plants**
 - **Other??**