Bamboo Production and Its Potential

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Today's Presentation

Overview of bamboo as a crop

- Global bamboo production and value
- Opportunities for FL bamboo industry growth
- Brief intro to bamboo production practices in FL

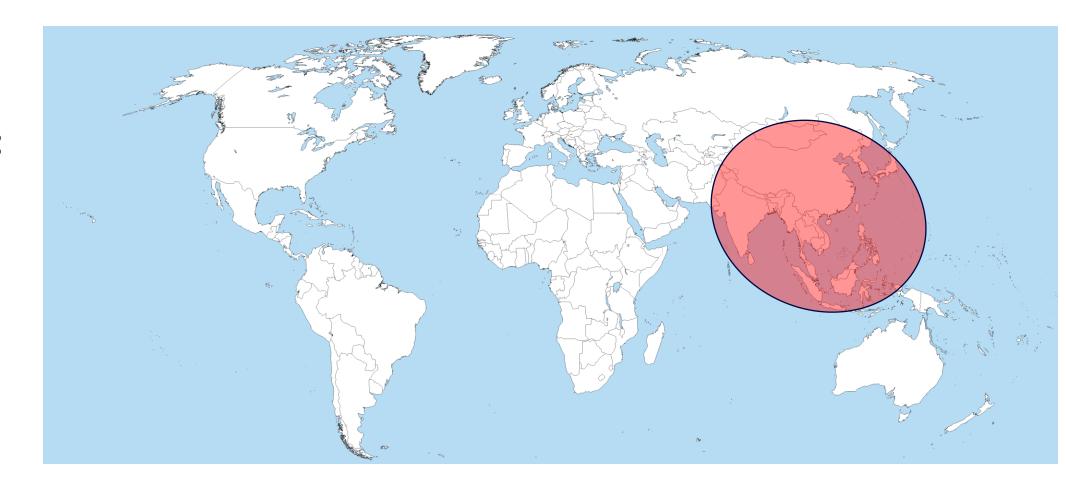


Global Bamboo Production

69% of global bamboo acreage is in the Asia-Pacific region

Top 3 Producers:

China India Indonesia





Global Bamboo Market (Value)

Global bamboo market revenue (finished products)

• 2024: \$67.4 billion **2033:** \$102.4 billion (Straits Research)

North America Market

• 2023: \$12 billion 2032: \$17 billion



Bamboo Uses (Global Trade Volumes)

Industrial Products (35%)

• Plywood, flooring, pulp, paper, textiles, etc...

Bamboo articles (23%)

• Kitchenware, tableware, furniture, etc...

Bamboo Shoots (12%)

Fresh, canned, other food products

Biodegradable Packaging Market (fastest growth)

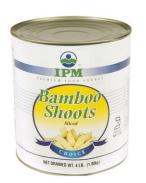
• Cartons, bottles, bioplastic containers, etc...



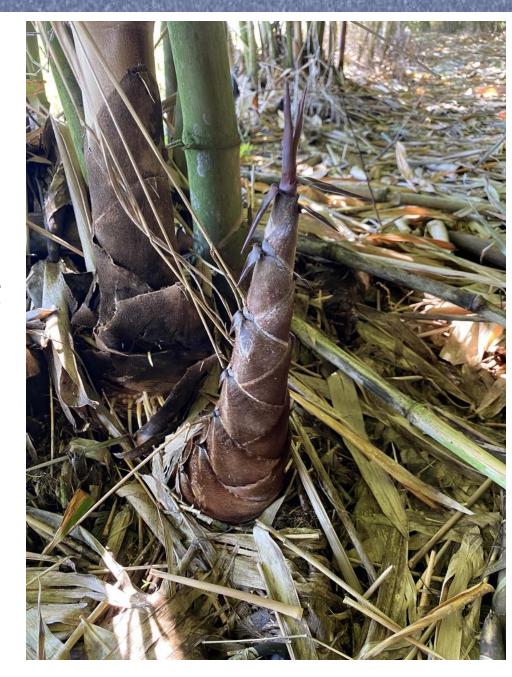
North America Bamboo Imports

Bamboo shoots (food)

- US is the 3rd largest market for bamboo shoots (12% of global supply)
- Canned shoots are the predominant import
- Fresh shoots are less than 1% of imports due to shipping/handling constraints









North America Bamboo Imports

Raw bamboo (poles)

- 2019: 23,000 metric tons
- 2023: 14,700 metric tons

Reasons for import decline:

- Growing global demand
- Cost to ship to U.S.
- Global trade policies
- Brazil now the fastest growing exporter to the U.S.





Florida Bamboo Production Opportunities

- Florida is well-positioned to become the source of raw bamboo materials for the US market
- Demand for raw products exists (in Florida/US)
 - *Edible shoots:* fresh, canning, other food uses
 - Culms (poles): Timber, textiles, pulp/paper, biochar, bioplastics, etc...
- Processing facilities established (FL) with more proposed:
 - Fresh shoot packing/canning
 - Culm (pole) processing facilities
- Future growth of the bamboo market in the U.S. will be determined by how much product Florida can supply



Growing bamboo as a crop





Bamboo Forest (Taiwan)

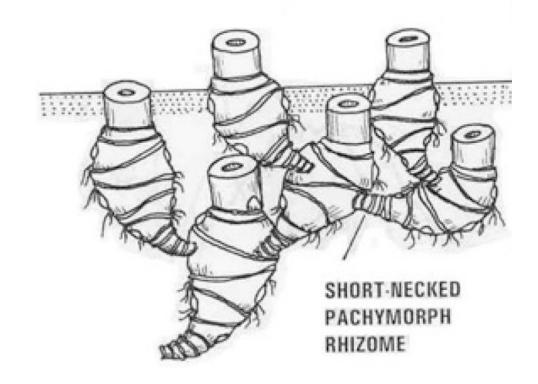
- Phyllostachys sp.
 - Running bamboo
 - Invasive
 - Not legal to plant in FL





Clumping Bamboos

Non-invasive

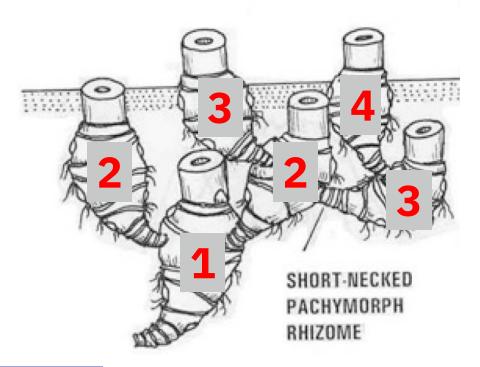






Clumping Bamboos

Culm diameter increases each year







Clumping Bamboos

Can be managed in rows

Similar to citrus tree spacing





Bamboo species selection (FL)

Dendrocalamus asper

- High quality edible shoots
- Superior quality wood
- Edible shoot harvest begins year 4 or 5 (rainy season)
- Harvest of culms (poles):
 start year 5? (dry season)









Questions addressed in the next presentations:

- How to grow high quality bamboo in Florida? (Kadyamapakeni)
 - Soil prep, planting density, nutrient/water management, weed control
- Is bamboo production profitable in Florida? (Barley)
 - Data from Florida Bamboo Growers Association on current yields, profitability, and future outlook
- How do I get the product from the field to the processor? (Hoffstetter)
 - Mechanical harvesting of mature culms (poles)



THANK YOU

