

# Best Practices for Bamboo Establishment

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# Take home message

- Site preparation
- Bamboo species selection
- Planting density
- Mulching practices
- Irrigation practices
- Fertilization

# Site preparation

- Good tillage, disking, loosen the soil
- Adding soil amendments e.g. compost, wood chips, biochar etc to increase soil organic matter

# Bamboo species selection

- Clumping vs Running varieties
- Clumping varieties recommended for Florida
  - Dendrocalamus asper
  - Dendrocalamus lataflorus
  - Dendrocalamus giganteus
- Running varieties, considered invasive and not recommended e.g. Moso bamboo (*Phyllostachys edulis*)

# Examples of clumping varieties



**A *D. asper* in Wauchula, FL.  
Photo: C. Januarie**



**A *D. giganteus* shoot in  
Loxahatchee, FL. Photo:  
Tropical Bamboo Nursery**



**A *D. latiflorus* bamboo plant  
south Asia. Photo: Plants for  
the Future**



# Planting Density

- Ideally between 80 to 250 plants per acre for shoot production
- 80-150 plants per acre for timber and wood production. Row middles of **25 ft to 30 ft** good for mechanized operations!
- Don't plant too dense: >250 plants per acre **not** recommended!



**Some D. Asper bamboo shoots.  
Photo credit: K. Barley**

# Mulching practices

- Use mulch e.g.
  - Plastic fabric,
  - Plastic mulch
  - Wood chips



**Weed pressure with no mulch (left) and better weed management with plastic mulch (right). Photo credit: Cyrus Januarie**



# Irrigation Practices

- Microsprinkler irrigation ideal for bamboo production:
  - 10.5 gph, 13 gph jets
- Drip irrigation could also work where there is plastic mulch
  - 2-4 gph emitters



# Fertilization Practices

- Below 150 lbs N per acre for <1 yr-old young bamboo
- 150-200 lbs N per acre for 2-3 year old bamboo
- Still evaluating rates for >3 yr-old bamboo



**Davie Kadyampakeni  
collecting bamboo leaf  
samples in Frostproof,  
FL. Credit. C. Januarie**

# Fertilization Practices (2)

- Slow or controlled release fertilizer can be applied
  - 2-3 times per year (First in Feb, the 2nd in April and then finally in Aug/Sept)
- Conventional granular
  - Apply 4-6 splits per year, February to October
- Liquid fertigation (February-October)
  - Weekly, biweekly, monthly

# Conclusion

- Site preparation, good land preparation
- Bamboo species selection, clump varieties
- Planting density, <250 plants per acre
- Mulching practices, soil amendments and plastic covers
- Irrigation practices, microjet and drip irrigation
- Fertilization, slow or controlled release, conventional granular and liquid fertigation



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