

# Management of Stand Growth and Yield

- Objectives
  - Pruning to control wood quality and form
  - Thinning practices to control stand growth and yield

# Management of Stand Growth and Yield

- Pruning

Self Pruning



Artificial Pruning



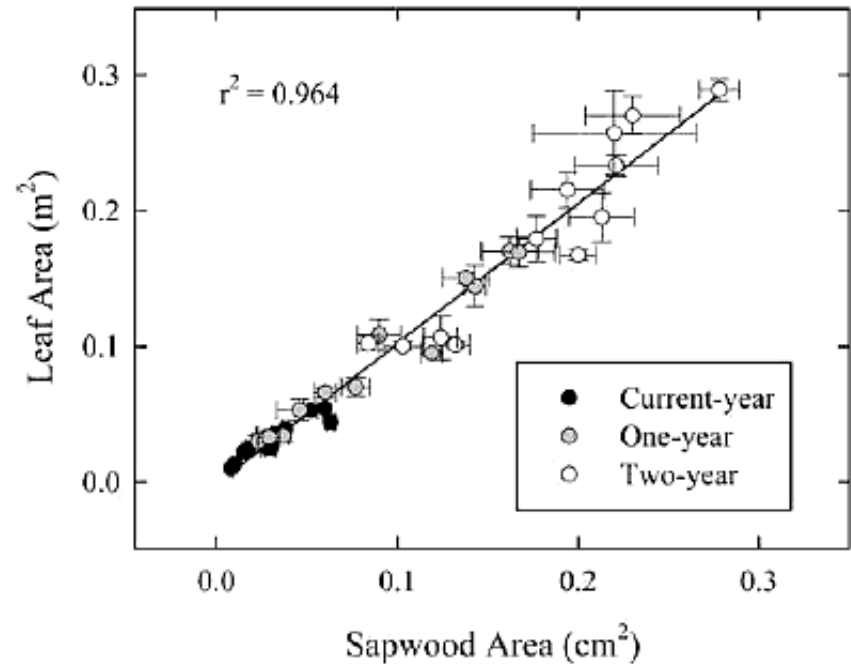
# Management of Stand Growth and Yield

- Thinning



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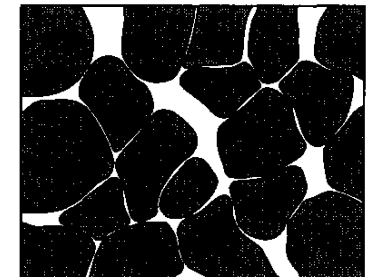
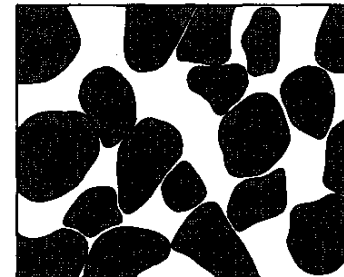
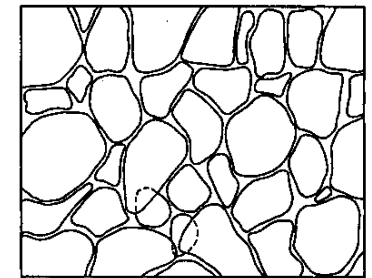
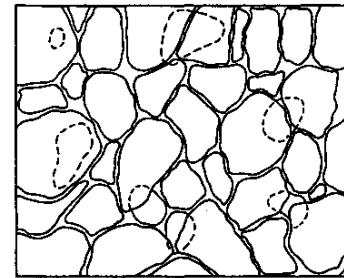
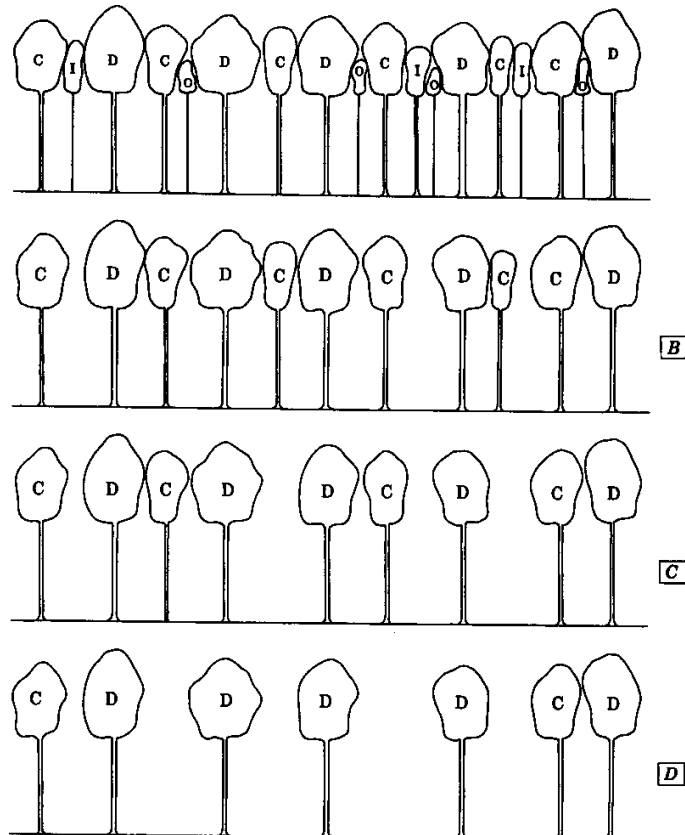
- Thinning

*Thinning represents the primary means by which the yield of stands can be increased beyond the best that might be achieved under purely natural conditions.*



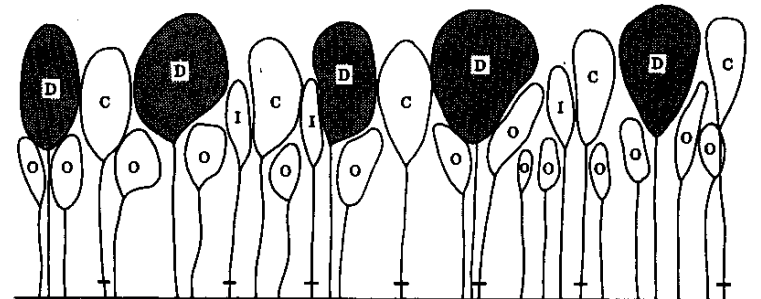
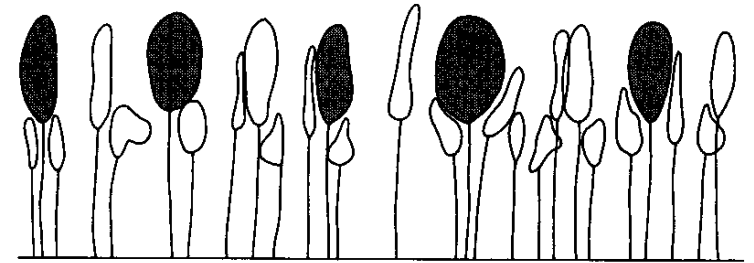
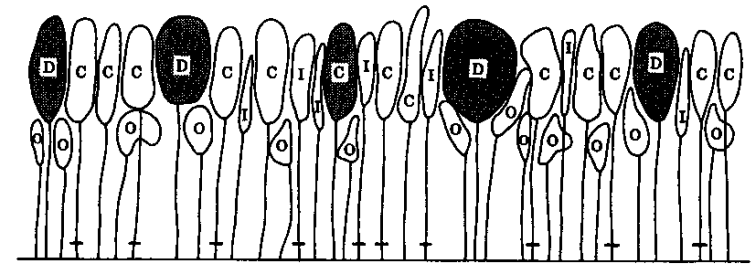
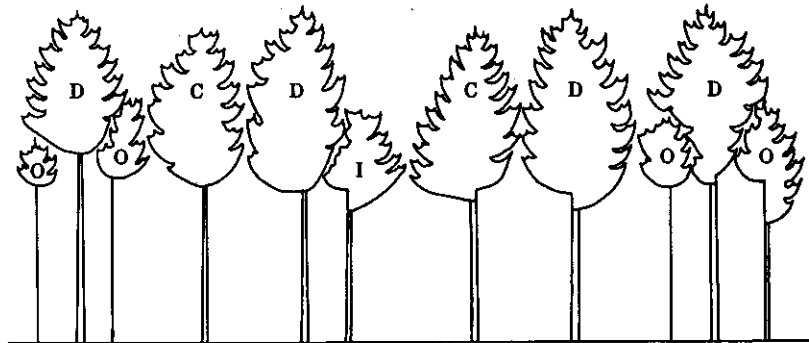
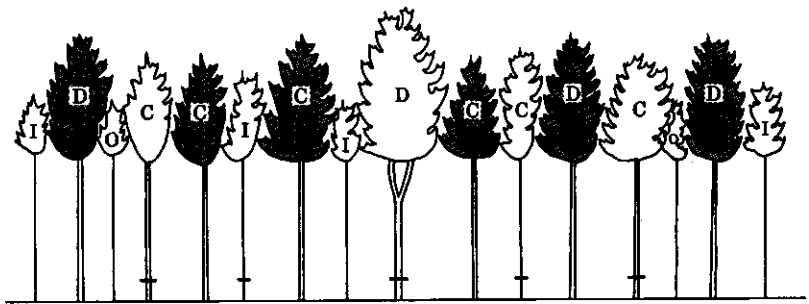
# Management of Stand Growth and Yield

- Low Thinning



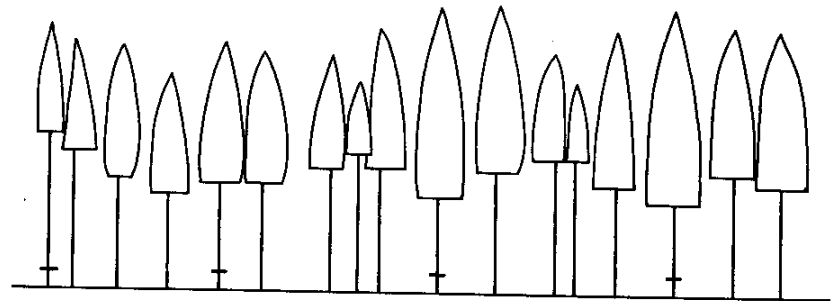
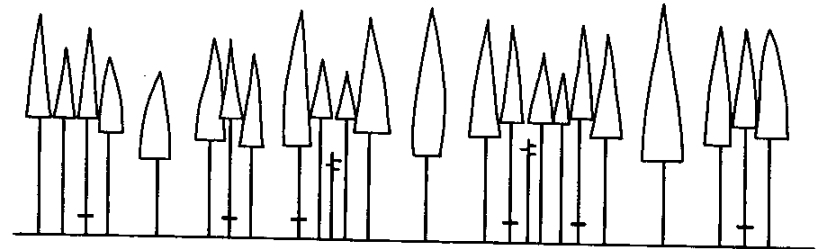
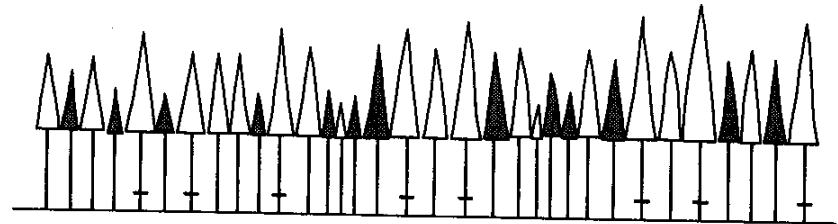
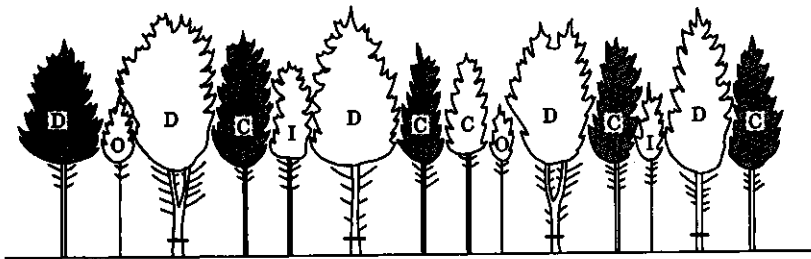
# Management of Stand Growth and Yield

- Crown Thinning



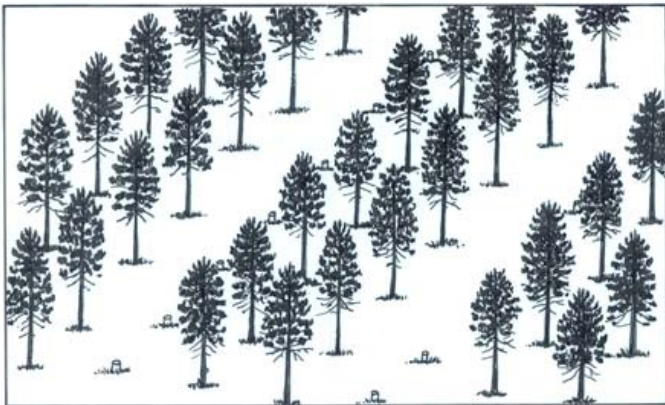
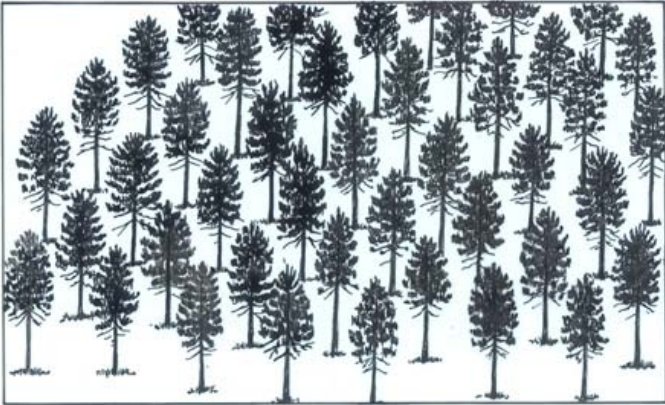
# Management of Stand Growth and Yield

- Selection Thinning



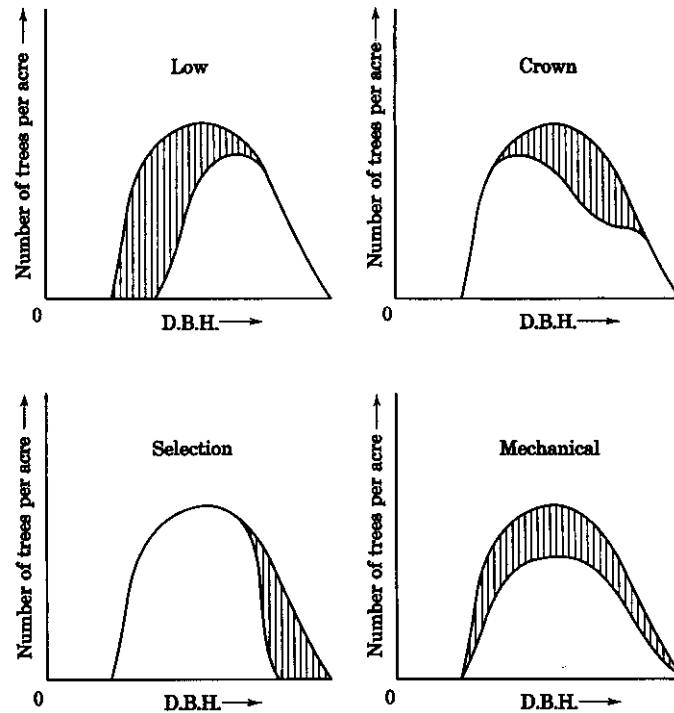
# Management of Stand Growth and Yield

- Geometric Thinning



# Management of Stand Growth and Yield

- Thinning



# Management of Stand Growth and Yield

- Thinning

- *The total cubic volume of wood that can be produced by a given stand in a given length of time may be reduced, but rarely increased by thinning*

- *Thinning merely concentrates yield in fewer, larger diameter, and more valuable trees*

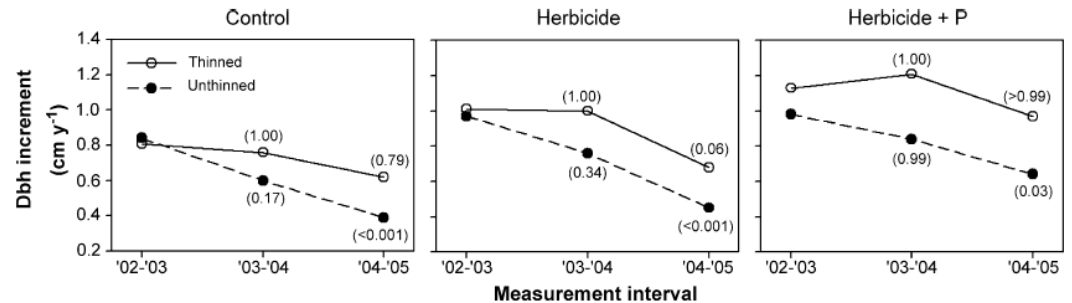
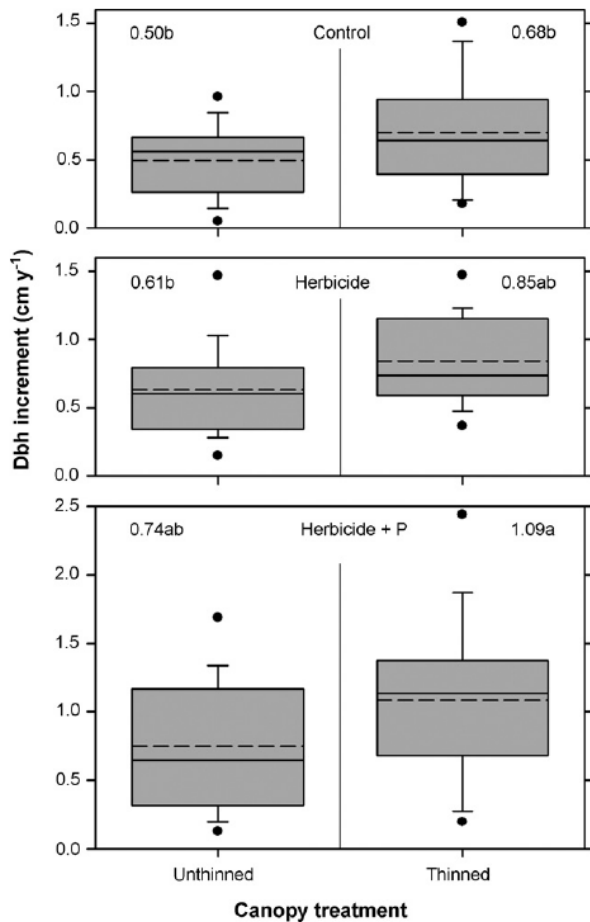
- *Exception being for selection thinning which maximizes the number of harvest trees and not large tree size*

# Management of Stand Growth and Yield

- Thinning - Does it work?
  - Scowcroft et al. (2007)
    - Crown thinning (crop tree) in 25-yr old secondary *Acacia koa* vs. Unthinned
      - Herbicide of understory grasses
      - Application of P fertilizer
      - Herbicide + P
    - Initial stand density of 955 trees ha<sup>-1</sup>, & 655 trees ha<sup>-1</sup> following thinning
      - Stand started at 20,000 trees ha<sup>-1</sup>

# Management of Stand Growth and Yield

- Thinning - Does it work?



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- Thinning - Does it work?

