

# ↓ Use Thinning to Improve Growth of Remaining Trees

- Reduce competition for light and other resources through single tree selection, group selection, crop tree release, timber stand improvement, variable density thinning
- Sources recommend removals of <25% BA over 20 years (between A and B line for fully stocked stand)

## Benefits

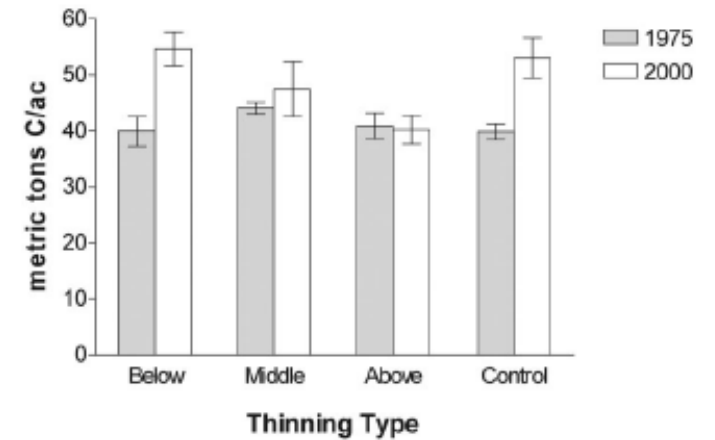
- Increases sequestration of remaining trees
- Can flux carbon to other forest pools (deadwood)
- Greater tree vigor can flux more carbon to soil pool (via root exudation)
- Promotes forest resilience -- can increase age/species diversity and stand complexity, reduce competition for light and resources (may help with drought) and to disturbances (wind firmness, insects)
- May result in higher proportion of wood for durable wood products

## Considerations

- Will reduce carbon stocks in the short term
- Pre-commercial thinning vs commercial thinning
- Costs, markets (pulp, fuel wood)

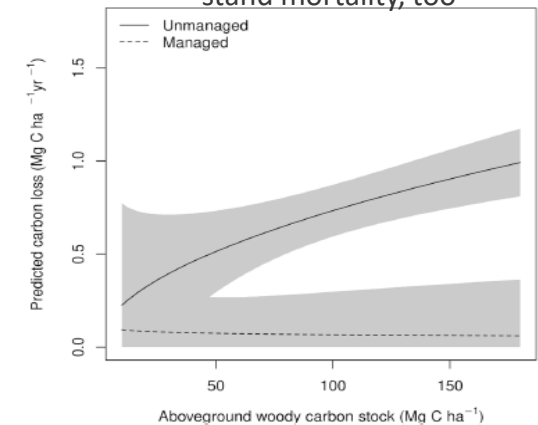


Thinning can result in similar carbon stocks to no management



Source: Hoover and Stout (2007)

Management can decrease stand mortality, too



Source: Kern et al. (2021)