NEFF Regen and Mills Crop Trees

Si Balch and John Mills
July 2013
All plots results - the graph of these results is on the next page.

453 plots - 99 with 0% removal, 101 with 5 - 25% removal, 102, with 30 – 50% removal, 85 with 55 – 75% removal, 93 with 80 to 100% removal.

Plots are grouped by the commercial value and shade tolerance of the species of the regeneration.

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<th>SPECIES</th>
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<th>ro</th>
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Categorized by % stocking removed during harvest.

- The % of the plots successfully stocked with high commercial value species rose from 21% in stands with 0 – 25% removal to 45% in stands with 75 – 100% removal.
- The % of plots with low commercial value species hovered around 30%. It rose slightly and then declined as more of the stand was removed and more light reached the forest floor.

There is a clear message here.

➢ The stocking % switch between low value and high value species is dramatic, as % removal increases and more light falls on the forest floor.

Without the higher light levels available in stands with over 50% harvest removal, the species that will dominate the future stands will be the lower commercial values ones (Beech, Red Maple, Hemlock, Balsam Fir, Red Spruce).
All Forest Types

% Harvested Stocking Removal Categories

Regeneration Stocking %, 5-10 years after harvest

by commercial value group

- high $ value = wp,ro,sm,yb,bb,bc
- mid $ value = wb,wa,wo,hi
- low $ value = be,hm,rm,bf,rs,as
Data from Brooks Mills Land

• On three wood lots Brooks installed two CFI plot sets and designated over 1400 individual crop trees.
• He started recording DBH growth in the early 1980’s and continued until 2007.
• Torturing both myself and the data has yielded a few observations
Home Place Red Oak Crop Trees - DBH average annual increase over different measurement periods by initial DBH in INCHES

Initial DBH in INCHES vs. annual dia growth in INCHES

4 yr ave is .260
17 yr ave is .277
Poly. (4 yr ave is .260)
Poly. (17 yr ave is .277)
Brooks Mills Sweet Lot - DBH ave annual increment by initial DBH - INCHES

- Red Oak ave .22
- White Ash ave .14
- Sugar Maple ave .17
- White Birch ave .12
- Yellow Birch ave .13

Average Annual Increment - INCHES

Initial DBH - INCHES
Brooks Mills Sweet Lot Basal Area Ave Annual Increment by Initial DBH - sqft/ac

- Red Oak ave 0.21
- Sugar Maple ave 0.13
- White Ash ave 0.10
- White Birch ave 0.10
- Yellow Birch ave 0.09
- Poly. (Red Oak ave 0.21)
- Poly. (Sugar Maple ave 0.13)
- Poly. (White Ash ave 0.10)