Session 2: Managing your timber for sap production

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Why we manage

How many trees per acre

Treatment options
Why we manage our woodlots

- Maintain tree health and vigor
- Maximize volume and sugar content of sap
- Reduce production costs
Where do we start

- Remember – Your IQ drops 50 points the moment you start up a chainsaw!
- Always have a management plan
  - Know your property boundaries
  - Identify your sugarbush stands
    - Size of trees, drainage area, past history.
2016
air
photo
LIDAR

- Hillshade
~9.5 acres

-1 plot per 2 acres
- Random start point
- Maintain standard distance (to avoid bias)
- Refer to Page 56-57 in forestry reference handbook for data collection method (IN vs OUT trees)
Data to collect by plot

- For all “IN” trees
- Species
- DBH (diameter @4.5ft above ground)
- If previously tapped is there tap hole closure in 1 - 2 years
- Live crown ratio
- ~ Crown width
Live crown ratio

Higher LCR = More sap and more total sugar produced

LCR 50-75% increase sap yield 25% vs. <50LCR

Crown width impacts
30ft width = 100% more sap vs. 20ft (typical closed canopy forest conditions)
After data collection

- Calculate average DBH, BA, Live crown ratio, Trees/acre
- Decide where you need to go and how you are going to get there.
- Aim for 60-70 trees per acre. 25ft spacing
  - Hypothetical data shows
    - Ave. DBH = 12”
    - Ave BA = 120 sq. ft.
Crop Tree Release

- To promote tree canopy growth by reducing crown competition.
  - Maintain Live crown ratio @ 50 - 60%
- Produces more leaves, sap and to a lesser extent sugar content.
Crop Tree Release

- The smaller the size class of trees the greater the potential impact on sap sweetness (influence genetics)
- Most common for size class 6-10” or above
- Give each of the 60-70 trees/acre a SS# and Name
- Evaluate every 10-20 years
Crop Tree Release
Crown Needs Room To Grow
Mark Crop & Remove Trees
Eliminate Competition
Cut, Double girdle or girdle/treat
Advantages of CTR

Crop Tree

- Given space to grow but density is maintained
- Focus all efforts on best trees / limits labor
- Potential influence genetics into the next rotation
- Each CTR event removes more % of overall remaining stand overstory
Disadvantages of CTR

- Can stress trees if too aggressive
- Moves stand closer to monoculture
- Repeated entry is tough on tubing lines if not timed properly