

Acer 2021 Enriching Maple in Appalachia Sugaring Operation
Assessment Checklist

Sugaring operation:

Location:

Operators:

Assessment conducted by:

Date of Assessment:

Description:

Operators Goal(s):

Operator expectations from this process:

Tapping

- ☐ Are you considering historic Freeze/Thaw cycles in your area to help determine when to tap?
(wetherunderground.com)
- ☐ Are you looking at the weather forecast before beginning tapping?
- ☐ Depth of taphole (1/75-2 inches)
- ☐ Stop on drill
- ☐ Spacing of previous tapholes
- ☐ Tapping zone (reasonable overhead)

Woodlot Assessment

- ☐ Stand composition
 - 40-80 maple trees/acre
 - Species composition/diversity
 - Diameter distribution
 - Density (26 ft between trees)
- ☐ Tree health
 - Broken or dead tops
 - Bark damage at the base
 - Tree form – single or multiple stems
- ☐ Understory
 - regeneration – present/absent
 - excessive ferns
- ☐ Site conditions
 - Slope
 - Aspect

Access (repairs and sanitation)

Sap Collection system

☐ Mainlines

- tight (no sags)
- slope (3% minimum- Unless you live in Ohio)
- clean
- connectors (plastic or SS)
- End line gauges

☐ Bucket Collection system

- Food grade plastic
- No galvanized or solder repaired buckets
- Lids (with collection indication system)

☐ Gravity systems

- Tightness of lines (no sags)
- Number of taps/ lateral (20 – 25)
- Repairs
- Sanitation – evidence of mold buildup

☐ 3/16 Tubing System “natural vacuum” - Gravity

- slope appropriate.
- taps per 3/16 line (slope dependent)
- Tap and dropline replacement schedule
- Dropline length
- Evidence of mold
- Repairs
- Top of line gauges
- Sanitation system (chemical or water)

☐ 5/16 Tubing system “pump and releaser”

- proper Slope and no flat spots that might interfere with sap flow
- Tubing condition (animal chews, age deterioration)
- Number of taps per lateral (5-7)
- Loop at mainline (leak check)
- Plan for replacement
- Pump sizing (NYS Tubing Manual)
- Evidence of mold
- Dropline length
- System sanitation method (chemical, dry vac, water)

Sap Storage (woods and sugar house)

- ☐ Volume (2 gal/tap)
- ☐ Cleaning procedure
 - Sanitation
 - Periodicity
- ☐ Cooling measures

Sugarhouse

- ☐ Consistent with Best Management Practices/Inspection guidelines or regulations (WV Facilities review manual)
- ☐ Inspect for possible lead contamination (brass is a no no, mostly)
- ☐ Ergonomics and sap flow efficiency
- ☐ Head tank location
- ☐ Record keeping
 - Dates and
 - Sap volume
 - Sap brix
 - Dates and
 - length of time boiling
 - volume of syrup produced.

RO Operation

- ☐ Brix
- ☐ Pump pressure
- ☐ Permeate volume _____ Concentrate volume _____
- ☐ Frequency of desugaring
 - catching sugar from desugaring
- ☐ Frequency of soap wash
- ☐ Acid wash
- ☐ Membrane storage
- ☐ Permeate conductivity (less than 10 ms/cm)

Filtering and Bottling

- ☐ Brix (66 – 68)
- ☐ bottle at 185 degrees F
- ☐ Sediment and Clarity
- ☐ Sanitize tops (on their side)
- ☐ Taste (absolutely delicious)

