WHAT ARE MY TREES WORTH?

By: John Withers, Procurement Forester for Meister Log & Lumber
Understanding the factors that determine the value of your trees

- Introduction
- Species
- Volume
- Quality Factors
- Harvest Costs
- Transportation Costs
- Inventory Costs
- Milling Costs
- Markets (Veneer, Lumber, Residues)
- Other
Species

• What type of trees do I have?
  • Different species have different values
    - Walnut
    - Hard Maple
    - White Oak
    - Cherry
    - Red Oak
    - Hickory, Ash, Soft Maple
    - Elm, Aspen, other
Volume

• Volume is a function of length and diameter
  • Trees are scaled by measuring DBH and merchantable height
  • Logs are scaled by measuring dib on the small end and length
    • Scale deductions are taken for rot, sweep, and other defects

• Different Log Rules
  • Scribner Dec. C- used in WI, MN, UP of MI
  • Doyle- Used in IA, IL and most other hardwood regions. Most walnut is scaled in Doyle
Quality

- Factors that determine quality
  - Past land use
  - Aspect
  - Soil type
  - Stand structure
Quality

• Quality is expressed by the grade of a log
  • Grades are determined by diameter, length, and number and type of defects
    • Veneer grades typically have the most value
    • Sawlog grades are derived from lumber grades
Harvesting Costs

- Operability
  - Road Work
  - Felling
  - Skidding
  - Landing sites
Transportation Costs

• Trucking Related Costs
  • Truck Costs
  • Fuel Costs
  • Repair Costs
  • Insurance Costs
• Prehauling?
Inventory Costs

• Cash Flow Management
  • What type of log supply is needed?
    • Winter
    • Breakup
    • Summer/Fall

• Down payments

• Interest rates
Milling Costs

- Capitol Investment
  - Buildings
  - Equipment
- Labor
  - Wages
  - Taxes
  - Workers Compensation
- Employee Benefits
- Other
Markets

- Veneer
  - Rotary vs. Slicer
  - Domestic vs. Export

- Lumber
  - Grades (Lumber, Ties, Cants)

- Residues
  - Sawdust
  - Bark
  - Chips
Other

• Sale Specifics
  • Volume
  • Species mix
  • Payment terms
  • Length of contract
  • Harvest restrictions
  • Potential hazards
Volume Estimate (Board Feet: Scribner Log Rule)

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<th>Species</th>
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* Cordwood Estimate: Mixed Hardwood 165 cords
* Cordwood estimate is derived from cubic yard data and from 1 cord/1000 board feet tally

General Harvest Description:
This 27-acre harvest is on level and moderately steep terrain on loam soils. The northern two-thirds of the area is marked as a group selection harvest to favor a future all-aged structure. The southern one-third is marked as an improvement thinning. A few small oak mortality pockets have been marked for salvage and to slow disease spread. Ash and elm have been targeted for harvest due to Emerald Ash Borer and Dutch Elm Disease concerns. Aspen has been targeted due to its mature/overmature condition. Marked pine, hardwood, and cattree will be felled during the harvest operation or by the landowner post-harvest. Oak quality is average to very good with an average volume per tree of 228 board feet. White oak quality is average to good and averages 156 board feet. Harvest access is generally very good. Some trail construction may be needed.

Conditions Specific to This Sale:
1. Legging operations are permitted only when the ground is dry or frozen.
2. Timber sale contract end date will be March 31st, 2020.
3. No harvest activity is permitted April 1 to July 15 due to oak wilt restrictions.
4. Harvest activity is permitted during the deer bow and gun seasons.
5. This sale is in the Managed Forest Law.

** HARVEST MAP AND LOCATION ON REVERSE SIDE OF THIS PAGE **
<table>
<thead>
<tr>
<th>Species</th>
<th>#Trees</th>
<th>14</th>
<th>16</th>
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**General Harvest Description:**

This approximately 15-acre harvest is located on moderately steep terrain on silt loam soils. All stands are marked as an individual tree/catch selection harvest. Approximately 75% of the volume is oak. There is also one good quality black walnut in the northwest part of the sale area. Access to harvest area is up driveway off Helgrenson Hill Rd., up driveway (Mickle Dr.) then east beyond the house and buildings and east out the ridge top. Access to entire sale area is good from the adjacent field. A potential landing is identified on map.

**Conditions Specific to This Sale:**

1. Logging operations are permitted when the ground is dry or frozen.
2. Timber sale contract end date will be March 31st, 2030.
3. Harvest activity is prohibited from September 1 through 21/31 annually.
4. Oak wilt restrictions apply (no harvest activity April 1 to July 15).
5. This sale is in the Managed Forest Law. MFL cutting notice has been submitted and approved.

**HARVEST MAP AND LOCATION ON REVERSE SIDE OF THIS PAGE**
Questions

John Withers-Procurement Forester
608-415-0618

midwesthardwood.com