Under Utilized Species

Biomass workshop
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Under Utilized Wood

- Historical Use
  - Waldorf Paper - St Paul
  - Chipping Facility - Kellogg
  - Shipped by Rail to Mill in St Paul
  - Environmental Concerns shifted the plant to recycled fiber in the 1970's
  - Mill now operated by Rock Tenn Corp

Under Utilized Species

- Today's markets
- Updated technology and process
- Changes in mill ownership
- Changes in the pulping process
- Increased use of bottomland species such as boxelder and elm
- Increased demand for urban wood

Under Utilized Species

- New equipment to harvest efficiently
- Updated sawmills that are more efficient
- More portable mills to process smaller amounts of logs
- Reduced reliance on aspen and spruce at some mills
- Alternative markets for pine and spruce as cabin logs and utility poles
Portable mills go where the logs are.

**Under-Utilized Species**

- Opportunities for forest management stand conversion
- Market for current cover type allows less expensive site preparation
- Convert low value and low quality species to higher value type
- Improves habitat and provides a benefit to the energy alternatives

**Stand Conversion**
- Any low value species
- Fit species to the site
- Marketing can offset some site prep costs
- May need application of herbicide or brush disk
- Neglected space management - reforest and wildlife habitat improvements
Boxelder Harvest

Under Utilized Species

- Market Development
- Pulpwood - Limited market
- Limited number of operators
- Transportation costs
- Pallet industry
- New technologies, NRE, Birch research
- Larex using tamarack
- Northern industries would use more of our southern wood - transportation issues

There are really no under utilized species in today's market. Nearly everything that we set up for auction is sold.