Minnesota’s Ash Resource and Markets 2/5/09

Ash Range and Prevalence
Ash species are very common in the eastern hardwood region, and also on the west coast. Minnesota has the third-highest ash population of any state in the U.S, behind only New York and Michigan. Three species of ash are found in Minnesota: black, green and white.

Lowland Hardwoods Cover Type
Much but certainly not all of the ash in Minnesota is found in the lowland hardwoods cover type*. The lowland hardwoods cover type is diverse, and could actually be classified as two distinctively different species associations: black ash-dominated stands, often located on organic soils; and silver maple-cottonwood dominated stands, often located in broad or narrow floodplains near rivers.

The lowland hardwoods cover type in Minnesota is dominated by late “middle age” stands. A common rotation age for black ash is 90 years, although stands can be managed on shorter or longer rotations, depending on site conditions and landowner objectives.

Ash Species
Ash volume is significant in Minnesota, comprising 7.3% of the total for all species across all ownerships, and 6.6% of the total on DNR lands. Of the ash species found in Minnesota, black ash has by far the greatest volume.

Black ash grows largely on lowland sites, but can also be found in association with northern hardwoods on mesic upland sites.

Green ash thrives in a wide range of site conditions, and is found in the mix of species for many cover types. Green ash is also a very significant resource in urban areas.

White ash is a minor species statewide. It grows best on mesic upland sites in southeastern Minnesota, where it is found as a fairly minor species in the mix of several upland cover types.

*Forest cover type: A classification of forest land based on the species forming a plurality of live tree stocking.
Harvest Levels
Management of lowland hardwood stands dominated by ash has been very limited in the past, due largely to a lack of markets for smaller-diameter material. Harvest levels for ash began to rise in 2002 as “pulpwood” or small-diameter log markets improved. Some of these gains have recently been lost due to the closure several Oriented Strand Board (OSB) mills.

Net Growth and Mortality
Net growth of all ash species in the state is about 609,700 cords, and annual mortality about 35,000 cords, according to the 2005 FIA inventory.

Markets
Minnesota’s black ash resource is dominated by small diameter material, although a very modest amount of high-quality sawlog and veneer ash is grown here. Tree size and quality has an impact on markets and processing opportunities: much of the black ash resource is a good fit for “pulpwood” or smaller-diameter log markets.

Pulpwood Markets: Ash did not have a significant pulpwood market until approximately 2003, when several OSB and pulp & paper mills began using more of it. With the Ainsworth OSB mills currently shuttered, by far the largest ash pulpwood market in the state has been lost, but some “pulpwood” sized material is still used at two of the state’s pulp & paper mills and at one hardboard mill.

Sawlog Markets: A fairly small portion of the ash resource in Minnesota is suitable for use in sawlog markets. Ash is used in relatively low volumes in common hardwood sawlog markets such as cabinets, furniture and pallets. Ash is often a “substitute” for more popular species such as red oak when demand and prices for oak get very high. Ash sawlog markets are currently very weak.

Veneer Markets: Black ash export veneer markets are currently poor.

Fuelwood Markets: Ash has a significant residential fuelwood market, where it is now the species of second highest use in Minnesota behind oak. It also is a significant component in woody “biomass” energy markets that have grown significantly since 2003.

Specialty Products: Ash is used in small volumes in several “special” or non-traditional forest products, including "burls" for making specialty furniture, and strips used in weaving baskets.

Imports
Some ash is imported to Minnesota from adjacent states and Canada for primary forest product mill use. DRAFT 2006 pulpwood mill survey figures indicate that around 7,000 cords came into Minnesota from Wisconsin, 1,500 cords from Canada, and 1,600 cords from Michigan. These volumes may have dropped recently under current market conditions. Additionally, a small volume of ash sawlogs flow from Wisconsin border counties to sawmills in southeastern Minnesota. Fuelwood import volumes are unknown, but are probably modest.

Market Potential
Ash has potential for future market increases in the pulpwood, sawlog, fuelwood and specialty product sectors. It would take effort and resources to develop these markets, but it is technically very feasible.

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