

# FACT SHEET

No. 3

## Timber & Timber Harvesting in West Virginia

Winter, 2001

### West Virginia Timber Trees: Quality and Relative Value

There are approximately 100 different species of trees in West Virginia and they all have a value, but not all have value as raw material to be sawn into lumber. Some of the non-lumber trees can be sold as raw material for paper pulp, some for manufacture into oriented strand board, some are useful as ornamentals and some have been used for products that are no longer manufactured.

Several of the trees are limited in where they can grow and so are not plentiful enough to be sold as distinct species or even sold at all. An example would be the pines – white, red, pitch, Virginia, table mountain and shortleaf. White pine was once common in many of the eastern counties and scattered throughout several others. It is still harvested as a distinct species. The other five species are scattered sparingly and when harvested are sold under the collective name “hard pine” or “yellow pine.” Another example would be balsam fir, tamarack, red pine and arborvitae which are very limited in extent in West Virginia and so are not considered as timber. Still another would be the six species of hickory that are sold simply as “hickory” and still another would be the nine species of oak that are sold as “other oaks.”

Others such as mountain maple, striped maple, red bud, mountain ash, crabapple, and serviceberry are beautiful and useful small trees, but without a current commercial lumber use.

Consequently, the hundred plus species drops to the 25\* species and groups used by the U. S. Forest Service in their every ten year inventory, the 14\*\* species and groups used by the West Virginia Division of Forestry in its annual Timber Price Report and the 24\*\*\* species usually used in a consulting foresters timber cruise.

The value of *each species* varies according to tree size, tree grade (quality – fire burned, misshapen, short bole, etc), ease of access for logging, distance from processing plants or mills, time provided for harvest, overall size of the sale, number of board feet per acre, whether the timber has been professionally marked for sale or whether a stump diameter limit is being used, whether there are an excessive number of culls that will

have to be cut, whether the timber is being sold as trees (stumpage) to a broker, sold as trees to a mill, cut and sold as logs at the mill (gate wood), cut and sold at a concentration yard and the current price being paid by the end user for green and/or kiln-dried lumber. The log rule or scale under which the sale is made can also change the overall value as the yield can vary by as much as 50% depending on the rule used. Finally, it is important to specify in advance whether the landowner or the buyer will pay the 3.22% State severance tax. In summary, someone makes a profit at each level. He who knows the most or deals the sharpest makes the most. This is another reason that a landowner without a good knowledge of the forest product business needs his own forester to advise and/or represent him when timber sales are contemplated. Most businesses you will deal with have foresters working for them, but it is just good business to have your own representative.

In considering relative value, tree and log sizes are important because the larger logs yield a greater percentage of the better (knot free) grades of lumber. The larger unblemished logs of some species can be sold as veneer which results in the highest price of all.

In selling timber, it is necessary to think of the future. If you manage your land professionally, plan each operation, and build into and keep a well stocked stand (usually about 8,000 board feet per acre), the *average* increase in board feet per acre per year will be about 200. Some properties with a lot of yellow poplar or nice northern red oak may increase 500 or more board feet per year. If the property is in the high mountains of Webster, Nicholas, Braxton or Randolph, it will do even better. Timber companies are very pleased to be able to bid on 3,000 board feet per acre or more of high quality trees, which they would be able to do each 12-15 years on a well-stocked tract. In such professionally managed stands, each tree is marked before it is harvested and some trees are maintained in each diameter size category from 12 to as much as 40 inches. If the stand has been abused, it may take two or possibly three cycles to develop the proper stand structure, but it is profitable to do so and timber will continue to be sold during the process, but the trees will be smaller and of lesser quality. At the current (2001) across-the-board price for good quality timber, the income from the described well-stocked stand would be approximately \$80 per acre per year ( $15 \times 200 = 3,000$ .  $3 \times \$400 = \$1,200 \div 15 = \$80$ ). Inflation and scarcity will undoubtedly increase the price per Mbf that will be realized in the future when the stand is silviculturally balanced.

For additional pertinent information, see Fact Sheets 4, 9, 14, 15, 16, and 31

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\* Eastern red cedar, red spruce, white pine, Virginia pine, other yellow (hard) pines, hemlock, red maple, sugar maple, yellow birch, sweet birch, hickory, beech, ash, black walnut, yellow-poplar, cucumber tree, black gum, black cherry, select white oaks, select red oaks, other white oaks, other red oaks, basswood, and other hardwoods.

\*\* Black walnut, white oak, red oak, other oak, black cherry, hard maple (sugar), soft maple (red), ash (white), yellow poplar, basswood, hickory, white pine, other pine, and other hardwood.

\*\*\* Red oak, black oak, white oak, chestnut oak, scarlet oak, yellow poplar, basswood, white ash, hickory, sugar maple, red maple, American beech, black walnut, black locust, cucumber, sycamore, black gum, white pine, hard pine, hemlock, red spruce, yellow birch, miscellaneous.

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