

Lesson 8: Producing Walnut Timber

Producing Walnuts in Missouri

Missouri is one of the leading states in walnut production. Many of its soils are ideal for growing walnuts. The importance of walnut timber can be attributed to its outstanding physical properties along with the unparalleled beauty of its grain. The many uses for interior woodwork, paneling, furniture, gunstocks, and novelties attest to its popularity. Timber growers have found it profitable to manage walnuts for timber for many reasons, including the following:

- ◇ Walnut logs have brought consistently higher returns per thousand board feet than any other timber.
- ◇ Marketable quantities can be grown on a small area. One truckload and occasionally one tree, depending on its quality, makes a salable volume.
- ◇ While growing to timber size, walnuts produce crops of nuts that are valuable for home and commercial use.
- ◇ A walnut orchard, if it is protected and pruned, can produce a timber crop within the lifetime of the grower.
- ◇ On good ground, walnut is among the faster growing native hardwoods.
- ◇ Walnut trees on a farm add to its capital value, and make it a more attractive place to live.

Landowners who are fortunate to have existing stands of walnuts can find walnut production to be a profitable enterprise. Walnut production can also be profitable to those with suitable sites for planting and who are willing to wait for returns when trees mature.

TSI Practices Beneficial to Walnut Production

Walnuts require and deserve attention if maximum returns are to be realized. For this reason, walnut producers will find that their stands of timber will benefit from all TSI practices.

Particular attention should be paid to the practice of pruning young walnuts. Some general tips to follow are:

- ◇ Prune no more than 1/3 of the live crown each year. Prune all dead limbs.
- ◇ Try to start the pruning program early enough in the life of the tree to remove side limbs before they reach 1 inch in diameter.
- ◇ Be careful not to tear long strips of bark down the tree. To prevent this, double-cut the heavier limbs. That is, cut the heavy limbs off a foot or so from the trunk with the first cut. Then remove the remaining stubs flush with the second cut.
- ◇ Pruning is best done during the dormant season, winter or early spring. This reduces the incidence of disease and insects.
- ◇ Continue to prune until at least a 9-foot, clear stem has been developed.
- ◇ Always use a sharpened hand pruning saw.

Additionally, it is important to protect trees from the threat of fire and pasturing. Plow a fire lane around timber where it adjoins railroads, highways, and grasslands. Livestock grazing compacts the soil and retards the growth by upsetting the moisture balance of the root system. Livestock browsing will damage young trees, impairing good form and satisfactory development of the seedling.

It is also important to keep these high value trees free of metal. Use posts rather than valuable trees to support fences. Walnut buyers usually refuse to purchase trees to which fences were once fastened. Nails, staples, or other metal objects in logs damage saws and can cause serious accidents.

Planting Walnut Seedlings

Planting walnut seedlings is like a good savings account which can be withdrawn years down the road. Along with this, planting is important in existing stands to replace trees harvested or to fully utilize forest areas.

Plant walnut seedlings only in good ground. Walnut seedlings grow best in deep, well-drained, fertile soils. Walnut seedlings may grow on poorer sites, but growth will be slow and have poor quality. Soils and general growing conditions on north and east slopes are better suited than sites on south and west slopes. Sandy loam, loam,

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or silty loam soils are most desirable, but silty clay loam soils are also well-suited. Soils that are drab or gray with tight subsoils are poor places for walnuts. Neither poorly drained ground where water stands for considerable periods, nor barren, dry, sun-baked hillsides with heavy clay are good sites.

Along with replacement planting in existing stands of walnuts, there are many areas suitable for planting new stands. Unused ground along the lane or isolated areas that are too small to farm, such as sections of property cut off by highway streams, may be used. Choose rough or hilly areas, which are not suitable for agronomic crops, but which have deep, fertile, well-drained soils. Also, stream terraces or coves and lower north- and east-facing slopes can be utilized.

Walnut seedlings can be planted with one or more of the following species: white ash, red oak, white oak, and sugar maple.

To plant walnut seedlings refer to Lesson 3. It is important to pay particular attention to the weed control and fertility in walnut stands.

Defects Which Degrade Walnut Logs

The quality of walnut timber is essential to its value. A poor-quality log may have no value for veneer or lumber, while a high-quality log may be worth hundreds of dollars. A woodlot owner has a great deal of control in avoiding defects that degrade lumber quality.

It pays to harvest your trees at the right time, while keeping new crops coming on. The highest values are for trees 20 inches or larger in diameter. To be salable in markets as a sawlog, a tree should contain a log that is at least 8-1/2 feet long.

Defects are caused, they do not just happen. You can prevent many defects. Some common defects are:

◇ Insect damage – Prevent anything that might wound the trunk, including fire damage, pasturing, and careless logging. Areas containing heavy infestations may require control measures.

- ◇ Crooked logs – Prevent by removing competition that is causing walnut trees to grow out of shape.
- ◇ Dote or rot – Dote works down from the top of the tree and may extend its full length. Dead and dying branches in tree tops, butt scars, other large wounds, and large rotten stubs on the trunk often indicate dote. Prevention is the same as for insect damage. Sell trees as soon as possible upon discovery without sacrificing profit.
- ◇ Cat-faced knots – These concealed knots are generally more damaging to lumber than a knot from a sound live limb. Prevent by pruning walnut limbs when small.
- ◇ Lightning cracks – Sell tree immediately following lightning damage.
- ◇ Splits – Prevent by properly felling trees.

Selling Walnut Timber

Two general types of sale are usually open to the timber owner – a “lump sum sale” offer or a “price per board foot sale.”

The “lump sum,” or a price for all the trees to be sold, is most often used to sell walnuts. It causes the least trouble for the seller, who does not have to check any measuring, but simply takes the amount offered. However, unless the trees for sale have been marked, the buyer can take any tree he or she wants and the woodland may not receive maximum management benefits.

A “lump sum sale” allows the seller to receive the money before the trees have been harvested. It also encourages the buyer to make maximum use of the tree. The disadvantage of a “lump sum sale” is that the buyer has more risk involved and might bid conservatively where doubt about the tree quality exists.

Walnuts should be sold by bid, regardless of the method used. Where only a few trees are for sale, or quality is low, the seller may be able to attract only local buyers. Where tree numbers and quality are high enough to keep the cost of appraisal from being prohibitive, bidders may be attracted from greater distances.

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There are two types of buyers. Independent buyers work for themselves, buy timber, cut the trees, then resell the logs to one or more mills. The second type of buyer is a company employee who is on the company payroll. The employee's job is to buy a continual supply of timber to keep the mill operating.

Although it would appear that sellers could make more money by cutting and selling their own walnut trees, this is rarely the case. Few landowners have the skill or product knowledge to make proper judgments in harvesting walnut trees. They are also at a selling disadvantage once the trees are cut.

A bid notice should include the following:

1. Seller's name, address, and telephone number
2. Location of trees (legal description and directions from the nearest town)
3. Number of trees to be sold, average diameter, and how they are marked
4. Any special sale instructions (cleanup requirements, special periods of time that logging is to be excluded to prevent crop damage, etc.)
5. Latest date bids will be accepted (A minimum of one month should be allowed after mailing the bid notice for buyers to examine the sale area.)

The bid notice should state a definite date, time, and place when bids will be open and accepted. Only sealed bids should be accepted. The seller has the right to refuse all bids, but under no circumstances should verbal or late bids be accepted. All bidders should be notified as soon as the decision has been made.

All sales of timber should be covered by a timber sale contract. This should not be taken as a sign of distrust but as a good business practice. If all terms are set down on paper, it helps prevent misunderstandings.

The contract may be prepared by the seller with the advice of an attorney or forester, or it may be prepared by the buyer and an attorney. Standard contract forms are often used by buyers, or they may be obtained from professional foresters. No standard contract for selling

stumpage adequately covers all circumstances, but there are certain basic things that should be included:

1. Names and addresses of buyers and sellers
2. An accurate legal description of the location of the timber
3. The number of trees marked and how they are marked
4. The amount of the purchase price and how it is to be paid
5. Expiration date of the contract
6. Other responsibilities of the buyer such as: preventing fire, preventing excessive damage to young timber, and leaving roads, fields, and fences in good repair
7. Other responsibilities of the seller such as: guaranteeing to the buyer the right to sell the timber and granting right of way and entry into the land for the purpose of harvesting trees

Two copies of the contract should be dated and signed by both the buyer and seller with a copy going to each. Some contracts are signed in the presence of a notary public.

The seller should check the site for violations of contract provisions. This should be done several times while the operation is in progress. After the job is completed to the seller's satisfaction, the following items should be checked:

1. No unmarked trees were cut.
2. Fences, roads, and culverts were repaired to as good or better condition than before the sale.
3. There is no excessive or abnormal damage to the sale area.
4. Full payment has been received.

Summary

Walnuts have the highest return per board foot of any Missouri tree. Using good timber stand improvement practices, careful planting practices, and proper marketing techniques can make walnut production a profitable agricultural enterprise. Free technical assistance is available from foresters from the Missouri Department of Conservation and Extension.

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Credits

Schlesinger, R.C., and D.T. Funk. *Manager's Handbook for Black Walnut*. St. Paul, MN: USDA Forest Service, North Central Forest Experiment Station, 1977.

Slusher, J.P., F. Crouse, and L.R. Frye. *Selling Walnut Timber* (Guide G5051). Columbia: University of Missouri Extension, reviewed 1993. Accessed June 4, 2008, from <http://extension.missouri.edu/xplor/agguides/forestry/g05051.htm>.