



WALNUT NOTES

Multicropping

Multicropping involves planting crops between wide-spaced rows of planted black walnut. Soybeans, winter wheat, and other crops can provide early financial returns that may help offset the cost of establishing a plantation and provide some income through this phase. An additional advantage for some growers is that more of the land is used, increasing the yield per acre.

Obviously, the walnut grower's first concern should be to produce veneer logs, timber, and possibly nuts. Consider the following points before planting other crops in your walnut plantation:

- Small plantations may not be large enough to economically accommodate multicropping as an alternative to walnut alone.
- An ultimate spacing of 40 x 40 feet is desirable. However, this spacing provides for only 27 trees per acre at the end of the rotation and eliminates the opportunity to select crop trees early in the rotation. Therefore, an initial spacing of 10 feet between trees in the row, with rows 40 feet apart, is a good starting point.
- Multicropping does not eliminate the need for pruning, weed control, and good tree growth (see Notes on these subjects elsewhere). In addition to the usual required pruning, branches may need to be removed to prevent them from interfering with the operation of equipment. Walnut trees also benefit from fertilizer applied for planted crops. Cultivation of the planted crop will help control weeds along the rows of walnuts. Weeds within the row can be controlled by spraying Roundup¹

The type of crops you plant will be determined by the growth rate of the trees. Walnut trees will occupy more and more of the plantation area as they develop, decreasing your multicropping options. Because most black walnut sites are also good soybean and wheat sites, these three crops are logical companions. However, shading will probably limit soybean production after 7 years. Winter wheat could possibly be planted over a longer period because black walnut leafs out late. Both soybean and wheat yields will probably be a little smaller than under normal cropping systems.

Planting fescue for hay and grazing livestock could be another use for your plantation towards midrotation. The number of cows or other grazing animals and the amount of hay per acre depend on the site quality, growing conditions, and length of grazing period. It may be necessary to protect the walnut trees from animals.

Multicropped black walnut trees will probably produce commercial nut crops by age 15, and many will produce nuts by age 10. Consistent nut crops could provide income for most of the remaining rotation period.

¹Mention of trade names does not constitute endorsement by the USDA Forest Service.

References

- Ferrell, R. S.; Bentley, W. R. 1969. Plantation investment opportunities in black walnut. *Journal of Forestry*. 67: 250-254.
- Garrett, H. E.; Kurtz, W. B. 1980. Black walnut multicropping management. *Walnut Council Bulletin*. 7: 15-19.

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