



## All-Age Management



### DEMONSTRATION WOODLOT, Stand D3

A Virginia LEAF site at: SHENANDOAH VALLEY AGRICULTURE RESEARCH & EXTENSION CENTER (SVAREC) & McCormick Farm

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Many forest owners value their forest for wildlife habitat, recreation, and aesthetics. Given accurate information, many want to manage their woodlot using sound silviculture but clear-cutting as a regeneration method may not be visually acceptable. While a profitable timber harvest is of interest, a visually pleasing residual stand may be more important. To meet this objective, Stand D3 of the SVAREC forests was selected to demonstrate All-Age Management using group selection silviculture and individual thinning of select trees to create four age classes.

#### STAND DESCRIPTION

**Forest Type:** 5.8 acres of mixed hardwoods

**Species:** Hickory, white oak, ash, red maple, cherry and black walnut

**Regeneration:** Sparse oak seedlings and small. Fair amount of larger hickory and ash seedlings.

**Size:** Scattered mature trees from 16-28 inches. The younger class is pole timber and small sawtimber. Defective timber about 15%.

**Trees/Acre:** Well stocked to overstocked – Basal area 60-130 sq. ft. before harvest

**Topography:** West facing near top of slope – 3-7%

**Site Quality:** Good oak site- estimated Site Index 70. Frederick Soils – Previously pastured

**Prescription:** Demonstrate all age- management. Take current three-age stand and create four age classes by a regeneration harvest.

- Harvest over-mature sawtimber – save vigorous trees in the older age class
- Harvest Crop tree thinning for vigorous pole timber in 35-45 age class
- Thin to a basal area of 70-80 sq. ft.
- Provide patch cuts to regenerate oak by creating openings of ¼ acres
- Thinned poles will go for pulpwood or firewood

**STREAMSIDE MGT. ZONE:** This stand contains the head of a small active stream. Best Management Practices must be demonstrated in this zone.

## 2009 HARVEST DATA

Age Classes: 0, 40-50- 80-90- 100 +

Volumes before cut = 27.3 (5/acre) MBF (Thousand Board Feet) Doyle & 35 cords pulpwood

Basal Area - Before cut = 60-130 Avg. 92 sq. ft./Acre

After cut = 0-130 Avg. 82 sq. ft./Acre

Value of Harvest	MBF (Doyle Log Rule)	Value
Red Oak	1,036	\$ 311
White Oak	6,005	\$ 1693
Hickory	2,907	\$ 436
Ash	964	\$ 145
Cherry	78	\$ 12
Maple	217	\$ 38
Walnut	176	\$ 140
TOTAL	11,383	\$ 2775
Pulpwood	6 cords	\$ 84

Saw timber volume left after cut = 15,928 MBF /Doyle or 2,895 MBF /acre

Pulpwood volume left after cut = 14.3 cords

Crop Trees Marked – 24 trees from 8” to 14” marked in red band

**Regeneration:** Adequate ash, hickory and oak seedlings can be found in the group selection and small openings in the canopy to create a new age class.

**Future Harvest:** The next harvest could be in 15-20 years when the 100 year + and a new age group moves into this mature class.

**Wildlife Benefits:** Den trees and snags are marked for squirrels and birds. Brush piles create a variety of conditions for various birds, mammals and new deer browse.

For more information about this site or the management of this forest contact: Adam Downing, Extension Forester – Northern District: 540-948-6881 [adowning@vt.edu](mailto:adowning@vt.edu)

For more on Woodland Management: <https://ext.vt.edu/natural-resources/woodland-management.html>

For more on Timber Harvesting: <https://ext.vt.edu/natural-resources/forest-harvesting.html>

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