

Adding a Pine Component to Your Property

By: Matt Yancey, *Virginia Cooperative Extension*

Forest landowners in Virginia have a variety of options and opportunities for managing their land. Many landowners take a hands-off approach and allow hardwoods to grow naturally. Some favor the other extreme and practice highly intensive silviculture, growing pines with frequent thinnings, fertilizer and herbicide treatments. Other landowners choose a path somewhere in the middle, with some active hardwood management, and some acreage devoted to pine management. The nice thing about owning land is that these are the landowners' decisions to make. The decisions made are based on goals and objectives, whether they are for hunting, providing an income, or simply sitting back and enjoying.

Adding a pine component to a land base is a good option to consider, as pines grow faster than hardwoods and produce income in a shorter time frame, as well as provide another wildlife habitat component. Loblolly pine is the most commonly planted species in the south, due to its fast growth rate and straight form. The Virginia Department of Forestry (VDOF) offers several varieties of loblolly pine covering a range of genetic qualities.

A hybrid between loblolly pine and pitch pine has been developed to allow a favorable fast growing pine tree to be planted in colder areas of the state. Shortleaf pine is also a preferred tree to plant for high quality sawtimber and other benefits. The pines mentioned below will be planted at Shenandoah Valley Agriculture Research and Extension Center in 2010 on 14 acres that were clearcut in 2009-2010:

Pitch x Loblolly Pine (*Pinus rigida* x *Pinus taeda*) – This hybrid combines the cold hardiness of pitch pine with the fast growth of loblolly pine, making it a viable plantation tree on poorer sites in the Appalachian mountains. Work in the U.S. on this hybrid began in 1945 by USDA Forest Service, with prior work starting in Korea.



Crown form of planted shortleaf pine.

Shortleaf Pine (*Pinus echinata*) – *P. echinata* is a valuable tree for the sturdy lumber it produces. Shortleaf pine numbers in Virginia have steadily decreased since the 1940's, and there is an effort to bring those numbers back. It is a suitable tree for managing in a mixed hardwood stand, and can be planted throughout Virginia.

Elite Loblolly (*Pinus taeda*) – VDOF took their top two producing families and combined them into one seedlot. The resulting mix will give folks a 45% gain in productivity over unimproved seedlings. This is the highest producing open pollinated seedlings that can be obtained for planting in Virginia.

Premium Loblolly (*Pinus taeda*) – The premium loblolly pine is a combination of VDOF's 3rd and 4th fastest growers, with a yield around 35% greater than unimproved.

2nd Generation Loblolly (*Pinus taeda*) – This is a random mix of all the remaining seed collected from VDOF's second generation orchard. They yield around 20% better than unimproved seedlings.

These pines will be planted in one acre blocks, using three spacings: 8' x 10' (544 trees per acre (TPA) 12' by 12' (302 TPA), and 6' x 10' (726 TPA)). The 8' x 10' spacing is the general spacing recommended by VDOF Area Foresters, for optimal pulpwood and sawtimber production, allowing for occasional thinning within the rotation. These foresters also recommend the 12' x 12' spacing for landowners interested in wildlife habitat. The seedlings will be arranged so that visitors can see the difference between the growth of each species and variety. Interspersed within these blocks will be three unplanted areas, which will be allowed to regenerate naturally in hardwoods. A large block of hardwoods is reserved on the northern end of this planted area. These hardwoods add to the landscape diversity of the area, a direct benefit to wildlife. The interspersed developing hardwood stands will also demonstrate the difference in growth potential of pines versus hardwoods.

Pine planting is eligible for cost share payments to private landowners through VDOF's Reforestation of Timberlands Program (RT). Rates vary depending upon the species planted, and there is financial assistance for site preparation for planting, as well as future release of the pine seedlings from competing vegetation. Lands protected under a conservation easement are eligible for additional funds too.

The total cost of this planting project, without cost share assistance, is \$1,435. This project would be eligible for RT Practices 1 and 3 (Practice 1: planting loblolly or Virginia pine at \$25/acre; Practice 3: planting shortleaf, pitch-loblolly, white, or longleaf pine at \$60/acre). With cost share assistance (state owned lands are not eligible), the total cost would be \$1,045. The RT Program is paid for by the state forest products tax paid by forest industry, with matching funds from the Virginia General Fund. Landowners who participate in federal or state cost share programs will receive IRS Form 1099-G, representing Certain Government Payments. RT is among programs that allow landowners to exclude a portion of the payment from gross income. Determining this excludable amount is cause for another article entirely (stay tuned!).

***Matt Yancey is a Forestry & Natural Resource Extension Agent in the Northwest District.
yancey@vt.edu 540/564-3080***