

## SELECTIVE TIMBER HARVESTING IN HARFORD COUNTY

Harford County promotes sustainable forestry management using sound silvicultural practices. Silviculture is the theory and practice of controlling forest establishment, composition and growth. Sustainable forest management recognizes the importance of other products and services provided by the forests, such as protection of water quality, soils, and biodiversity. In selective logging, harvesting is the main practical silvicultural tool where professional forester's inputs can be provided to ensure sustainable forest management.

A selective timber harvest is part of a silvicultural system used to create or maintain an uneven-aged forest. Such a forest contains at least three well-defined age classes. For example, an oak-hickory forest with a history of timber harvesting might have an overstory of 60-80 year old trees, a pole stand of 20-30 year old trees, and an understory layer of seedlings. A high stocking level is one of the characteristics of uneven-aged forest management.

One of the main differences between a good selective timber harvest and a poor one is what is left in the woods after the sale. An example of a poor selective timber harvest is where the buyer will select just the high value, large diameter tree species for cutting and leave the low value (culls, undesirable species) and small diameter trees in the woods. This type of "selection" harvest results in degraded woodland which has a much lower growth potential over time.

A true selection harvest takes trees in all diameter classes, especially those trees that are unhealthy, overmature, have poor form, or are growing on the wrong site. ***A true selection harvest leaves trees in all diameter classes, especially those that are healthy, vigorous, have good form, and are growing on the right site.*** Give careful consideration and professional attention to the selection of trees to be removed during a timber harvest. Selecting leave trees that are inferior, disease susceptible or poorly formed can severely reduce the potential of sustainable forestry from the site. A professional forester trained in leave tree selection is best suited to make these determinations prior to a timber sale.

Selective thinning and single tree selection harvests generally involve painting only the harvest trees. When painting trees, it is common practice to spray a horizontal band of paint the width of the tree bole at eye level on the uphill and downhill sides of the tree. Markers spray an additional spot of paint on the downhill side of the stem next to the ground. This butt spot of paint is left behind on the stump after a tree is harvested to inform the sale inspector whether that tree was initially marked for harvest or not.

While marking the timber, foresters commonly run a tally of some percentage of the trees to be removed to determine the volume of the sale accurately. Normally, foresters record the diameter at breast height (DBH), the total height, species, percentage of defect in recorded trees, and occasionally other data. This information is used to estimate the total volume on the timber sale. Tree marking is one of the most important steps of a timber sale, but often is one of the most overlooked.

If a selective harvest does not leave conditions favorable for natural regeneration, then mitigation measures may be required by both the landowner and the operator performing the timber harvest.