

Tech Note

Hack-and-Squirt is Great Way to Enhance Forest Areas

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Trying to figure out how to manage and improve forestland can be a daunting task for landowners. There are various practices, techniques

and designs for landowners to decipher and then determine which one will accomplish the goals and objectives on their property. Depending on the site, forestland improvement may involve culling low-value or undesirable trees. Culling these trees will reduce competition for nutrients, minerals, water and space for the remaining trees as well as allow sunlight to reach forest floor, increasing growth of herbaceous vegetation and plant species diversity.

One timber management method that can improve forestland quality is called "hack-and-squirt." Simply put, an incision – or "hack" – is made in the bark of the tree with a sharp tool (hatchet, ax, tree injector, etc.) and then herbicide is sprayed – or "squirted" – into the incision. The cut bark will hold the herbicide long enough for proper absorption into tree.

Not only is the hack-and-squirt method simple, it is also a highly effective and selective method for timber thinning. Landowners are able to choose which trees are treated with herbicide and which trees will remain. Other chemical methods such as aerial spraying are also highly

effective. However, aerial spraying is not selective and does not give the landowner the flexibility to choose which trees to treat and which ones they would like to remain on the property.

Hack-and-squirt can be done any time of year. Even so, best results are typically found during periods of active tree growth, but not during the heavy sap flow of early spring. Similarly, rainfall can lessen the effectiveness of the treatment by washing the herbicide out of the incision. Because of this, it is not recommended to start treatment if rainfall is forecasted.

The age and size of the tree will also play a role in the effectiveness of the treatment and how much herbicide

should be used. Hack-and-squirt is not recommended for use on trees less than 2 inches in diameter. Trees greater than 2 inches in diameter are acceptable, and the number of incisions made will depend on the diameter of the tree as well as the herbicide used. Always check the herbicide label for proper dosages, mixing instructions, cut spacing and recommended personal protective equipment.

For a list of recommended herbicides and application tips, check out the below table from the University of Florida IFAS Extension. More herbicide application techniques for woody plant control can be found at: <http://edis.ifas.ufl.edu/pdffiles/AG/AG24500.pdf>



The hack-and-squirt method allows culling of trees by creating incisions and applying herbicides.

Herbicide Name	Active Ingredient	Application Rate	Application Tips
Arsenal AC	Imazapyr 4 lb/gal	6 oz/gal	One hack per 3" DBH
Garlon 3A	Triclopyr amine	50%	One hack per 3-4" DBH. Apply 1 ml of herbicide solution.
Velpar	Hexazinone	100%	One hack per 4" DBH.