Appalachian Hardwood Center Fact Sheet

Grapevine Control in Woodlands

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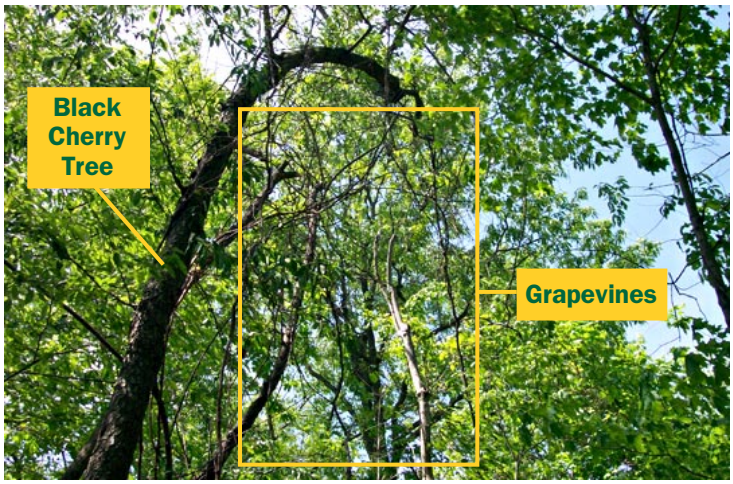
Vol. 04-1

Grapevine Problems

Perhaps one of the simplest, but most critical forest management practices is the control of wild grapevines in woodlands. Keeping this vine species in check is important for several reasons. If not controlled, wild grapevine can attach to the tops of trees, especially sapling and pole-size trees (trees less than 12 inches in diameter at breast height *dbh*). Once the grapevines become attached, they can pull the tops of affected trees toward the ground, which can cause a tree to grow in a u-shape. This results in a loss of tree form, quality, volume, and value for seed and wood production.



Grapevines pulling over a black cherry tree by the top and smothering that tree's leaf-producing area.

Where numerous, wild grapevines can suffocate the foliage or leaf-producing areas on trees, which reduces the ability of affected trees to put out foliage. This lessens the trees' ability to feed, thus reducing tree diameter growth and seed production. Less diameter growth means lower wood production and structure stability for an affected tree as well as more time to grow that tree to a harvestable age.

Reduced seed production equates to less food for wildlife and tree regeneration. Additionally, wild grapevine can grow in mats that cover a ground area, which reduces the ability of tree seedlings and sprouts and other types of plant species to become established, grow, and survive.

Wild grapevine often becomes a problem after trees or other plant species are harvested from woodlands, because of the increase in available growing space, sunlight, and moisture. One way to prevent this problem is to conduct grapevine control practices two to five years before a planned timber harvest or other such disturbance.

Possible Solutions

Methods of control include both physical removal like cutting and the use of herbicides. If manual cutting is performed, the grapevine stem should be cut both at ground level and at least 3 feet from ground level. This creates a gap that will reduce the ability of any new grapevine shoots produced by the stump from reattaching to the cut-off stem and using it as an avenue to reattach to a tree or other plant. Some recommend cutting grapevines during dormancy because they are more easily located, but the majority of the grapevines sap is then stored in the root system, which can give rise to new growth the following spring. However, this problem can be remedied by applying herbicide on the stump of a cut

grapevine or by browsing in areas with high deer populations. A plus to cutting grapevine stems in the growing season is that most of the sap is in the upper vine portions and will drain out, killing the vine. However, the stump can still produce new shoots that may need further treatment.

If ground mats of grapevine are present, a solution could be to first apply foliar-based herbicide followed by basal or stem treatments. An alternative would be to physically remove the vines, which could prove to be more time-consuming.

Resulting tree and forest area condition 5 years after grapevine removal.

Whatever the treatment selected to control grapevines, all of the methods described are helpful if a grapevine problem exists. However, if a woodland owner has wildlife management objectives, leaving some grapevine does provide food and cover for wildlife.

In addition, before a landowner decides to treat grapevines in a woodland, it is advisable to have a vegetation inventory conducted to determine the extent of the problem, if in fact one does exists.

References

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