

# Stewardship Notes

Indiana Division of Forestry

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## Grapevines

Grapevines can be a major problem when growing timber in Indiana. Grapevines damage hardwood trees by breaking tree tops and limbs, bending and twisting tree trunks and uprooting trees. Grapevine leaves growing in treetops can significantly reduce sunlight getting to tree leaves, reducing tree growth and vigor.

There are many species of vines found in Indiana forests, such as poison ivy, Virginia creeper, Japanese honeysuckle and the moonseed vine. Kudzu, an aggressive vine widely planted in the South, is creeping its way into southern Indiana. However, this information will refer mostly to the woody grapevine (*Vitis* spp.)

Wild grapevines spread primarily from seeds, but will easily develop roots where the vine touches the soil. The vines sprout prolifically when cut and are intolerant of shade. Prolonged shade reduces growth and will kill the vines. Vines grow quickly from seed in clear-cut openings and climb up newly developing tree seedlings, and, like tree seedlings, grow best in rich soil.

The fruit of the grapevine provides an abundant food source for such wildlife as birds, raccoon, quail, grouse and turkey. Grapevines also provide nest-building materials for songbirds and squirrels.

Grapevine control must be consistent with management objectives. If high-quality timber is the only objective, then elimination of all vines may be the control treatment. If wildlife development is the main management goal, then grapevine growth and reproduction could be maintained or stimulated. However, most woodland owners have multiple woodland goals, which usually include both quality timber and abundant wildlife. The common choice is to cut vines from trees with high timber potential and leave vines in trees with little to no timber potential. Vines can also be left along a wood's edge in an area 20-50 feet wide where quality growth is minimal.

The keys to vine control are herbicides and canopy shading. Herbicides sprayed directly on the base of vines are highly effective in controlling vines. Also, since a vine needs ample light, any vine totally in the shade of the understory has little chance of survival. Vines should be cut from a young forest stand (8-12 years old, 10-15 feet tall) as soon as that stand begins to form a solid canopy. These forest stands develop from tree seed after a heavy harvest (regeneration cut). Vines also grow from seed and follow up the tree as it grows.

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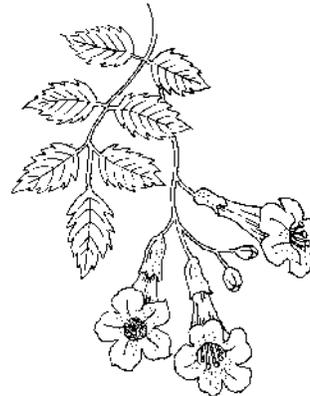
## Killing Vines

If the forest floor is heavily shaded, grapevines need only be cut off at any convenient height. If there will be a timber harvest within two growing seasons, or if the sun shines on the forest floor most of the day, then grapevines and vine loops should be cut and treated near the soil level with appropriate herbicide. (Sometimes vines are cut near the soil surface and at waist level, so the people doing the work can tell by the swinging end that the vine was cut.)

When sap is flowing out of cut vines, then the appropriate herbicide treatment will be the "basal treatment" on the herbicide label. Here the bark of the vine stump is soaked with the herbicide, which is usually mixed with oil or diesel fuel. Commonly recommended herbicides for vines are picloram (Pathway, Tordon RTU\* and glyphosate (Accord, Roundup\*). Do not use picloram near tulip tree. Always follow instructions and precautions on the herbicide label.

Vines do not have to be eliminated from a forest. In the case of vine tangles or concentrations, control of the tangle itself is usually not physically possible, due to the large numbers of vines and the presence of thousands of grape seeds in the soil. Control of the vines up to the area of the tangle is usually feasible.

**NOTE:** Vines that develop rootlets (hairs) that fasten onto tree trunks are not grape, and do not need to be removed because they do not grow over the top of tree leaves and branches. These vines are often poison ivy and wood vine, and are valuable for beauty, wildlife food and nesting places. Most vines start from a plentiful seed supply and grow up with the trees. their detrimental effects to tree growth can best be controlled when the stand is young (15-20 feet tall) and can be entered and the vines easily found and cut.



\*Mention of a specific product or brand name is not meant to be an endorsement of that product by the Division of Forestry or the state of Indiana, but is for identification purposes only.