

## The Dirty Dozen

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On our Tree Farms, which we intensively manage for forest products including high quality timber (i.e., prime sawlogs and veneer) and wildlife (e.g., deer and turkey), we try to kill twelve species of trees, shrubs and other plants which have little or no future forest products value. These dozen plants will ruin the future of our Tree Farms both for timber and wildlife production. The twelve species are called “weed species”. We weed our gardens and flower beds, we weed our crop fields, and we should weed our woods to make them more productive for both wood and wildlife.

Let me explain what I mean.

The first group of trees are species that have very little forest products value and very little wildlife value. In this group of weed trees, I include honey locust, American elm, river birch, box elder, and sugar maple. Often I mark with paint the merchantable trees in a timber sale for a client, and we sell lump sum to the highest bidder (logger) the marked trees. The logger now owns these trees, and after the harvest most of these weed tree species are left standing. Many times a logger is within a few feet of these trees while harvesting a higher quality species but cannot afford to harvest such low value trees. Even though the logger purchased them, they have no market value. In other words, the bid price paid by the logger did not value these weed tree species, yet they were taking up growing space in the woods. You have to then ask, why am I growing something I usually can't sell and has little or no wildlife value. A forester friend and I have sold a considerable amount of timber for clients over the last 40 to 50 years. If we can sell any of the five listed tree species, we figure we average \$6.00 to \$8.00 per tree. A rare, very good tree of these species brings up to \$15.00. An average oak should bring \$20.00 to \$60.00 per tree at maturity depending on the species. A veneer quality white oak should bring \$100.00 to \$300.00 or more per tree. Sugar maple is a valuable tree in northeastern states, but not usually in Missouri where it averages \$8.00 to \$20.00 per tree. To make matters worse, most of these weed species produce wind dispersed seed whose seedlings are shade tolerant and spread new seedlings all over the woods. Remember, oaks are Missouri's most common, dominant, profitable, and wildlife friendly species (acorns). Oaks need sunlight to reproduce and grow. Shade tolerant species listed above can grow in the shade. Next time you are in your woods, look at the seedlings and saplings (the future woods), and if you see elm, maple, box elder, etc., and very few if any, oaks, ask yourself what is the future of your woods? The single most important deer, turkey, and other wildlife food is oak acorns. With few if any young oaks in your stand, what will the wildlife eat in the future?

The second group of trees are ash, hickory and ironwood. All three are shade tolerant and can take over the understory of an oak woods. Ash and ironwood have a light, wind borne seed which spreads all over the woods. Most ash I sell bring only pallet or blocking prices (\$8.00 to \$14.00 per tree). Ash is often a valuable species for timber in northeastern states, but usually not in Missouri. Ash also has very low value as a wildlife tree. The Emerald Ash Borer may kill them all as is happening now farther east in lower Michigan, Ohio, etc. Ironwood can't be sold (other than firewood) since a very large one may be six inches in diameter. Some wildlife biologists like ironwood catkins in the spring for ruffed grouse food, but that's about their only wildlife value. Now, it may surprise you that hickory is on my “hit” list. Generally, it is mixed in with oak trees; I would much rather have oaks than hickories for timber and wildlife. Thus, when I manage my trees, I favor the oaks (particularly white oaks) over hickories. Hickories are also about the slowest growing species in the woods. After most timber sales, many of the sale-marked hickories are left standing by the logger. Most hickory trees sold bring only \$8.00 to \$15.00 per tree. If you are a squirrel hunter, keep the best hickories; otherwise favor the better oaks.

The next two species (really shrubs) are invasive species (not natives) and are highly undesirable in your woods—bush honeysuckle and autumn olive. Since they are shrubs, they have no forest products value, but they are valuable for wildlife, particularly food value. That's the problem! Many birds and some animals eat the prolific berry crops and their droppings rapidly spread the plants all over your woods and other non-tillable areas. These shade tolerant, aggressive seedlings grow very rapidly and shade/crowd out native plants and tree seedlings which are more desirable for wildlife food and cover and offer greater potential as timber. The loss of tree seedling reproduction due to this undesirable competition hurts the future value of your woods.

Two other plants I kill are multiflora rose and grape vines. The multiflora rose is such a pain in many ways that I cut the canes off at the crown to keep it from spreading. This species does best in the open sunlight and slowly dies out in the shaded woods, but when I find a large or vigorous one, I cut it. Grape vines damage and even kill many thousands of trees each year and cause losses of millions of dollars in future timber products and loss of wildlife food production. I cut grape vines off near the ground at each loop and where it goes up in the tree. I also often cut and herbicide spray other vines such as trumpet vine, poison ivy and Virginia creeper. These vines cause minor problems compared to grape vines.

**AN IMPORTANT FACT**—To kill each of the twelve undesirable species, you must properly apply a herbicide immediately after cutting. Otherwise, these “weeds” will sprout back and very soon there will be more stems than in the beginning. We cut off all small (less than 3 inches in diameter) trees, shrubs and vines and immediately spray herbicide on the cut surface (stump). On trees larger than about three inches, we girdle (ring) the tree with a chain saw, cutting completely around the tree one-half to one inch deep. We then immediately spray herbicide into the cut (the girdle or ring). This kills the tree, shrub or vine every day of the year. The only exceptions are sugar maples, river birch, and grape vines which have tremendous sap flow usually during late February, March, April, and early May that flushes off much of the herbicide resulting in a poor kill. On these species, modify the timing of cutting and herbicide application in order to maximize the effectiveness of management.

The herbicide we use year around is Pathway, which is has the same label as Tordon RTU. Both have the same active ingredients—Picloram 5.4% and 2,4-D 20.9% We buy Pathway in 2.5 gallon jugs—half the price of Tordon RTU in quart bottles. The herbicide is applied undiluted straight from the container. We girdle, cut, and spray our weed trees waist high for easier cutting and herbicide application. These trees will be just as dead as those treated through the much harder work of bending over and girdling/spraying near ground level. We leave these trees standing rather than felling, which often flattens or damages young desirable seedlings or saplings or they can get hung up in pole- to small sawtimber-sized stands. Plus, dead and standing trees make great sources of woodpecker food. These dead trees usually fall piece by piece and do minimum damage to the existing stand.

In your area you may prefer to replace one or more of my “dirty dozen” species with one of your weed species. Several candidates come to mind—such as red cedar, blackjack oak, beech, etc.

**BOTTOM LINE:** Killing weed species will greatly increase your timber value, wildlife numbers, and increase wooded land value. A win-win situation.

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