



# Living On A **FEW ACRES**

## Controlling Weeds in New Tree Plantations

You've just picked up your seedling trees and transplants, and you're excited about getting outside and planting them around your property. They don't look like much right now, but in a few weeks they'll kick into high gear. Unfortunately, so will the weeds!



*Seedlings and transplants ready for pick-up from the Washington Conservation District.*

Weed competition is probably the greatest reason why tree plantings fail. Why put all the time and effort into planting these tiny trees if you don't have a plan for managing the array of nasty weeds that will inevitably appear? Uncontrolled weeds dramatically reduce the growth of your new trees, and may even kill them.

It is important that new trees have a weed-free area that reaches out several feet surrounding the stem. If you place a seedling tree or transplant into existing sod – a lawn

or pasture setting – without scalping away some of the sod, good luck. Bluegrass sod or other established, perennial grasses are very aggressive in the spring. Unchecked, they generally out-compete your trees for water, nutrients, and light.

People who place their transplants into newly-tilled soil generally are quite pleased with the results until several weeks later. As the soil warms, there are a multitude of weed seeds that will begin to germinate. Unchecked, these weedy plants can outgrow your trees in a matter of a month or so. Don't expect bare soil to stay bare very long; sooner or later something will grow in this spot.



*This heavy sod will aggressively compete for water and nutrients. Remove the sod from around these trees and keep weeds in check*



# Weed Control Strategies

- **Cultivation**

It's not the most exciting thing to do, but this tried-and-true method can be very effective. If you have a tractor, you can pull a small disk between rows of trees that were planted into bare soil. Just keeping the weeds suppressed between the rows can make a big difference. You may still have to hoe or hand pull weeds that grow up close to the trees.



*Shallow disking or cultivating between rows should be done 3 or 4 times a season until the trees take hold.*

Be careful with cultivation and hoeing not to dig too deep or too close to the trees; their newly forming roots are quite close to the surface. Hoeing and hand-pulling weeds is most effective (and easier to do) on tiny weed seedlings. If you're taking out weeds with a chainsaw, it's too late.

- **Mowing and Weed Whipping**

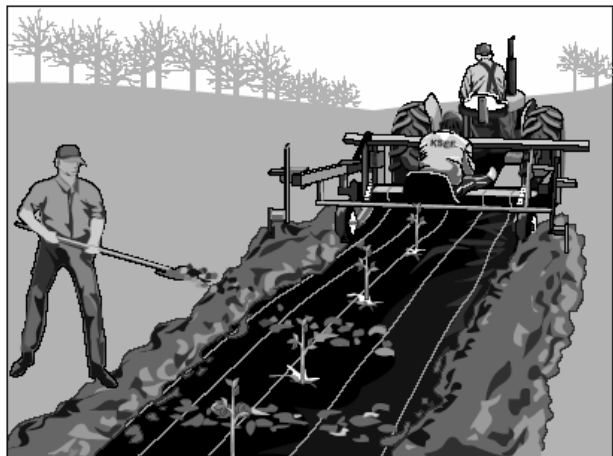
Sites that have established vegetation between the rows can be managed quite effectively by mowing. Remember, however, that your trees should have a weed-free area surrounding each plant. Weed whipping may be necessary for those sites that you can't mow, but weed whips have probably killed as many trees as they have protected. It's hard

to whip tiny weeds, so if you're taking out weeds that are three feet tall, your planting is already stunted.

- **Weed Barriers**

In recent years, we have seen an increase in the use of physical weed barriers in tree plantations. These physical barriers come in a variety of types and materials ranging from synthetic woven fabrics to natural products like discarded wool. The purpose of these materials is to prevent or reduce weed emergence, yet permit water and air to penetrate.

In large projects, rolled fabrics are laid down prior to planting the trees. Then you make a slit and insert your seedling or transplant right through the material. The fabric is highly effective in preventing weeds from penetrating, as long as the fabric is laid over weed-free soil to begin with. If the fabric is laid over perennial vegetation you will occasionally see the perennials lifting the fabric right off the ground as they grow.



*Large projects can make use of a single-pass mulching/transplanting machine.*



Synthetic fabrics can be somewhat costly, so to reduce expense you can cut up the long rolls into smaller sheets, perhaps three feet by three feet. Make sure to anchor the sheets with long staples or stakes. Under most conditions these weed barriers will give effective control for five years or more.



*Individual mats can be placed around each tree. These mats must be anchored to the ground with stakes or landscape staples.*

Old newspapers are another readily available resource that can be used as a weed barrier when laid down in multiple sheets. They have to be anchored down with staples or stakes; otherwise your neighbors will be reading last week's headlines that blew off your site.

- **Mulching**

Wood chips, sawdust, compost, and other types of organic mulches can give you a year or two of weed protection. As they decay, they become less effective. When using organic mulches remember to place them over weed-free soil to begin with, and make sure that the mulch is not mixed into the soil. Keep the mulch depth rather shallow, not exceeding 4 inches. If possible, keep the mulch from contacting the stems; otherwise the decaying mulch could injure your plants.

- **Herbicides**

Chemicals used to kill weeds are called herbicides. In agricultural settings, over 95% of

the major crop acreage is treated with herbicides, and there are literally hundreds of products to pick from. In tree establishment, however, the number of options is severely limited. Making matters worse, some of the most effective herbicides for tree planting situations have been pulled from the market because the manufacturers can't sell enough of the product to remain profitable.

All herbicides are federally registered by the Environmental Protection Agency (EPA). One of the steps in the registration process includes rating the product for toxicity. Pesticides are placed in one of three categories of toxicity; **Danger** (highly toxic), **Warning** (moderate toxicity), and **Caution** (low toxicity). These terms, called Signal Words, are listed in bold letters on every pesticide label.

For homeowner use, we would not recommend the use of pesticides in the "Danger" category, and we would prefer that you avoid "Warning" products whenever possible. The use of "Caution" products, when label directions are followed, should pose no adverse effects.

The Washington Conservation District has developed a separate fact sheet, "Herbicides for Tree Sites" for more information.

Living on a Few Acres is a cooperative project of the Washington Conservation District and the University of Minnesota Extension Service.

