To Plant, or Not to Plant: a Question of the Forest

Forest regeneration is always a topic of discussion among forest landowners. Many have recently had a timber sale, or want to increase the diversity of the trees they have, while others would like to convert some of their pastureland to forest. But, how do you know whether natural regeneration is the right path for your forest? Natural regeneration, new seedling growth, comes from the seed bank in the soil as well as seeds from surrounding trees. Some seeds can travel quite a distance, so if you have mature trees of your desired species in the area, odds are there should be some of their seeds around. If you don’t have good natural regeneration, or you don’t like the species that are regenerating another option is planting seedlings. Seedlings of almost every species can be purchased for planting.

So, how do you know if you have good natural regeneration? If you can go into your woods and see seedlings and saplings of all sizes and many different species, your forest has good natural regeneration and you don’t really need to plant.

If you don’t see any smaller trees, those less than one half inch in diameter, you have poor natural regeneration and could consider planting. Some of the reasons for poor natural regeneration are: wildlife pressure (deer browsing), closed canopy (no light reaching the forest floor), or a large fern or other “weed” population in the understory. You will have to take steps to correct any of these problems you may have before planting, and often by doing so, natural regeneration will come in on its own.

Another reason for planting forest trees is to increase the number of species growing in your forest to increase diversity. Some forests may only have a few species growing in them, especially if they...
were planted. Forests with low diversity are more susceptible to problems from insect or disease outbreaks. You can also convert your forest from one type to another or improve wildlife habitat by planting trees.

Some landowners have fields they would like to convert to forestland. One way to do this is to let the field grow, and usually within several years, depending on deer impacts, woody plants will start to establish. However, this natural reforestation can take many years before large trees are visible, and they may not be the desired species. To jump-start the process, plant desirable trees. Planting in fields is generally pretty easy, as the ground is flat and mechanical tree planters can be used.

So, why wouldn’t you plant trees? Reasons include the desire for open habitats, the labor of planting, costs of planting, and the potential for mortality of seedlings.

A common barrier for landowners is usually the labor involved in planting. Planting in a field is simple enough, but planting in a forest is usually done by hand, and can be complicated by existing tree roots.

Cost is also a consideration, small softwood seedlings range between $30 and $60 per 100, and hardwoods $60 to $120 per 100. If you plant with an 8x8 spacing, that’s about 680 trees, or $400 per acre, plus the costs of planting and seedling maintenance.

Another concern is seedling mortality. Your seedlings should come with instructions; follow them. Many seedlings die due to improper planting, drought, wildlife damage, or damage caused by humans. Planting and care of the seedlings before and during planting is crucial. Seedlings are delicate and need proper water and storage, don’t let your investment be wasted. Wildlife browsing is also a big killer of seedlings. If you have a high population of animals (deer, rabbits, voles, etc.) that feed on trees during the winter, realize that you will probably lose some seedlings. Consider managing your wildlife population or protecting the trees with tree shelters, which is an additional cost.

When purchasing seedlings, make sure you buy plants that are suitable for your site and hardiness zone. Before choosing species, evaluate your site. Do you have areas of standing water; are there dry pockets; is there a lot of shade; what is your soil type? These are some of the questions you should ask yourself, and then find trees to match your specific soil conditions. To help with winter hardiness, buy
trees from a grower with a climate similar to NY. The NYS Department of Environmental Conservation and many county Soil and Water Conservation Districts also sell trees well suited to NY.

There are other great reasons to plant trees including for windbreaks, wildlife habitat, energy conservation, riparian buffers or aesthetics. Forests provide us with a myriad of benefits. Planting might be a good way to benefit your forest.

For additional information on forestland activities that will benefit your objectives, visit Cornell’s forestry website at www.ForestConnect.info, contact your local office of Cornell University Cooperative Extension, or join the New York Forest Owners Association through their website at www.nyfoa.org

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