



Nursery News

July 2014

ANNOUNCEMENT: NEW PROGRAM NAME

The State Nursery Program received a new name early in 2014 and now is recognized as the **Reforestation Program**. The fresh moniker reflects the broader spectrum of services provided to our partners and customers.

The *Nursery News* name will remain intact and information about reforestation can still be found at dnr.wi.gov, search “tree planting”.



SPECIES FOCUS: RED PINE (*Pinus resinosa*)

Information Source: DNR Silvicultural Handbook

Red pine (*Pinus resinosa*), also called Norway pine, is a “bread and butter” species for the Reforestation Program representing about a third of its total sales volume. As one of the most extensively planted species in Wisconsin and in the Lake States and northeast Canada, it provides a significant wood resource for forest industry for pulpwood and timber. Red pine also contributes to recreational, wildlife and watershed benefits.

Red pine is shade intolerant, typically grows on dry, nutrient poor to medium sands that have a pH of 4.5 to 6.0. Typically a tall, slender tree with a smooth, straight, clear bole of little taper and bark

having a red tinge, it is a long-lived species with lifespans up to 200 years. Young trees have long pyramidal crowns of stout horizontal branches. By maturity heights of 70-80 feet and diameters (dbh) up to 36 inches can be realized. The wood is lightweight with a close-grained, pale reddish coloration.



Recommended planting densities range from 500-1000 trees per acre and should be maintained at this level while in the seedlings and saplings diameter ranges. If seedling mortality

is excessive and minimum stocking levels are not maintained, then supplemental planting is recommended and should be implemented within the first two years.

During the first summer, seedlings develop taproots 6 to 18 inches long. Most root elongation takes place in the spring and early summer with a second spurt in early fall; prevailing soil moisture and temperature conditions influence the timing and intensity of growth.

Red pine seedlings grow slowly, usually requiring 4-10 years to reach breast height (4.5'). Height growth usually increases once trees are 5-10 years old, and dominance in dense stands is often expressed by age 12.



First plantation thinnings generally occur at 20-25 years of age when basal area is 100-180 sq. ft. per acre with subsequent thinnings recommended throughout the life of the plantation to maintain health and vigor.

Red pine provides habitat and shelter for wildlife. New plantations should consider some areas of different vegetation, either openings allowed to regenerate naturally or intentionally planted clumps of different appropriate species, to promote diversity.

As with any plant species, it has its insect and disease nemeses including sawflies, Saratoga spittlebug, Zimmerman pine moth, red pine shoot moth and white grubs, scleroderis canker, needle cast diseases, Annosum root rot and pocket decline. During high population peaks, damage may occur from snowshoe hare, cottontails and white-tailed deer. Porcupines can girdle red pines from sapling to mature trees.



High quality, red pine bare-root stock is available for purchase from the state nurseries beginning in October.

Map: Range of native red pine



SEED COLLECTORS NEEDED

Like to get outdoors? Planning a college fund for your child? Need extra “fun money”? Become a [seed collector](#).

Each year, the Reforestation Program purchases quality seed from locally adapted native trees and shrubs to meet reforestation goals in Wisconsin. A large portion of this seed is purchased from local collectors, like you. Species being accepted, along with purchase prices, are posted on our [web page](#) in August. A Seed Collector’s Newsletter, also on the web page, provides additional information.



Sue Hanneman, forest technician, buys cones at the nursery
DNR photo

Before collecting, please contact Griffith State Nursery manager Jim Storandt (715-424-3702) in Wisconsin Rapids or Wilson State Nursery manager Joe VandeHey (608-574-4904) in Boscobel for guidance and to determine if quotas have already been met.

Closed jack pine cones are accepted year round at the Hayward State Nursery.



COST SHARING AVAILABLE

[Cost sharing](#) for afforestation, reforestation and a number of other resource management practices is available to Wisconsin landowners through the Wisconsin Forest Landowner Grant Program (WFLGP). Advocating private landowners to manage their lands in an environmentally sound manner is the thrust behind the funding. The program allows qualified landowners to be reimbursed up to 50 percent of eligible cost of eligible practices. Tree planting is a **priority #1** practice for funding.

Private Wisconsin landowners are eligible for WFLGP funding if they own at least 10 contiguous acres of non-industrial private forest, but less than 500 acres within the state. A forest stewardship plan is required and also can be funded through WFLGP dollars. A [fact sheet](#) explains the eligibility criteria. Federal cost share programs also support reforestation projects.

Contact your local [DNR Forester](#) now to ensure access to available funds.



FOREST HEALTH SURVEYS PROVIDE MANAGEMENT TOOLS TO STATE NURSERIES

The Reforestation Program collaborates annually with the Forest Health Program to survey for pathogens which can impact stock quality. Current research projects encompass a jack pine gall study (initiated in 2009), blister rust treatments (initiated in 2013), diplodia testing (started in 2006), and a fungicide application study. Each study follows established protocols. Reports are provided to the Reforestation Program which influences management practices applied to the nursery beds and growing stock.



Kyoko Scanlon, DNR forest pathologist, inspects seedlings as part of a forest health survey. DNR photo



HOW TO BUILD A DEER EXCLUSION FENCE

Deer browse on planted and naturally regenerated seedlings is one of the greatest obstacles to seedling establishment and survival in Wisconsin as well as many other locales. A 2014 Purdue University Extension publication on [deer exclusions](#) provides the basic steps for building an effective, cost efficient deer deterrent.



Photo credit: Purdue Extension



TEACHER OPPORTUNITIES

Teachers – Start planning now for a fun 2015 Arbor Day event! All Wisconsin 4th graders are eligible to receive a free seedling from the DNR’s Reforestation Program. Beginning in December, teachers can apply [on-line](#) with seedlings delivered to a centralized county pick up point in April.

It’s an excellent venue to discuss the ecological benefits trees provide and offers a fun interactive opportunity for kids to connect with the out-of-doors. Educational tools also are available on our web page.



SPECIAL EDUCATION OUTREACH

In May the Reforestation Program proudly participated in a DNR sponsored program for special needs students at Bradford High School in Kenosha. On the big day, developmentally disabled high schoolers planted seedlings, got hugs from Smokey, donned life vests to practice canoeing in the middle of their classroom, hooked a few rubber fish swimming in plastic buckets and enthusiastically touched wildlife pelts. It was an educational and personal growth experience for all who participated.



Photo credit: Joanne Haas

FOR SALE SURPLUS WIRE SCREENING

**48” wide x variable lengths
1/4” mesh opening
Wooden boards attached**

**\$2/roll without shade cloth
\$4/roll with black shade cloth**

Checks payable to DNR

Pick up only

Hayward

715-492-1204

Wisconsin Rapids

715-424-3702

Boscobel

608-574-4904



IMPORTANT UPCOMING DATES

Aug – Sept	Seed buying begins Seed collectors needed!
Oct 1 st	Tree seedling and shrub sales begin
Dec - Mar	Teachers – sign up for the 4 th grade Arbor Day free seedling program
Ongoing	Sign up for tree planting cost sharing





WISCONSIN SECURE PROGRAM FACILITY

Initiated in 2011, the Wilson State Nursery and the Department of Corrections, Wisconsin Secure Program Facility (WSPF), both located in Boscobel, joined forces to develop a work oriented partnership for inmates. During the four years the agreement has been active, inmates have graded and packed approximately 400,000 tree and shrub seedlings annually for the state's Reforestation Program; nursery stock is subsequently distributed to customers for reforestation projects within the state.

During lifting and distribution season, stock is transported daily to the prison and goes through high security check points both when entering and exiting the facility. Two prison crews, totaling 16 inmates, process the seedlings. The highly prized project lasts three to four weeks with participation confined to inmates who have demonstrated good work habits and are interested to have an opportunity to excel. While working within a specially designed secured work area, one inmate shared that he valued the privilege to be outdoors for several hours a day. Inmates are paid a nominal fee for their work; funds are deposited into their prison account.



WSPF inmate packs seedlings for a special planting project Photo credit: Wisconsin Secure Program Facility

The local nursery manager noted, "Working with the Wisconsin Secure Program Facility to grade and pack seedlings has been a great partnership. This grading team has complemented our own operations at the nursery and allows us to be more flexible in scheduling." The partnership enables the Reforestation Program to process about 40 percent more stock in any given day at this location. He added, "This also helps us get state produced seedlings to customers during optimum planting conditions".

Management at the correction facility added, "We are very pleased with the way things have worked. It gives our inmates something to look forward to doing and they feel like they are giving back". The team-like work inmates exhibit fosters better communication between groups. This, coupled with the satisfaction of a day's work, fosters better relations between all. "Having inmates sort trees is a huge motivator for us; for our general population inmates it might be the biggest one," he summarized.

The project strongly correlates to WSPF's goal of providing a controlled increase in privileges and responsibilities to promote acceptable conduct all the while helping to keep nursery production costs in check. Opportunities to expand the project may be explored for the 2015 distribution season.

2014 Statistics:

Graded 360,000 seedlings in 15.5 work days
Daily production average = 23,000 seedlings
Best production day = 41,000 seedlings
Processed 12 different conifer & hardwood species

Nursery News is published in January and July with the intent to keep individuals abreast of regeneration topics.

State Nurseries

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www.dnr.wi.gov, search "tree planting"

Photos from internet unless otherwise noted