

From Seed to Tree

December 27, 2018.

For more than 100 years, the New Hampshire State Forest Nursery has been serving the Granite State and the New England region by "growing and distributing quality, bare-root seedlings for forestry, conservation, and education purposes." In that time the organization has grown from first cultivating just three species of trees to now overseeing the growth of more than 50 different trees and shrubs on 16-plus acres. In spring 2019, they expect to have approximately 250,000 seedlings available for purchase and planting. "The State Forest Nursery cultivates and grows seedlings for conservation, reforestation, Christmas tree farms and wildlife habitat improvement purposes for the public and other government agencies," said Shaun Bresnahan, a regional forester and supervisor of the State Forest Nursery.

"The nursery gathers its seed from local sources, many of which are on the property, so our seedlings do well in New England." Originally, the state nursery provided seedlings for reforestation purposes at a time when, according to its website, "much land in the state was cutover, burned or otherwise needing forestation." Since then the nursery has adapted to the changing needs of the state forests, public lands, the people and the wildlife. "We provide quality seedlings at fair price so that public can realize their goals for their own forest or for public lands in New Hampshire and outside of New Hampshire," Bresnahan said. "This can be accomplished by purchasing specific species or by purchasing packages of seedlings that are suited for providing food for many wildlife species on particular planting sites. These packages contain five seedlings of five different species and are easily identified with color-coded tags." The 2019 catalog offers 15 varieties of conifer trees, including multiple spruce, pines and firs plus red oak, black walnut and both silver and red maple for hardwoods. Other options include bayberry bushes, dogwood trees, elderberry, pussy willow and winterberry holly, plus non-native species like crabapples and high bush cranberry. For those looking to accomplish a specific purpose, there are also specialty packages, such as a wetlands combination (silky dogwood, buttonbush, arrowwood, wetlands rose and pussy willow) that grow well in moist areas adjacent to ponds or streams; or the songbird and wildlife package (American



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hazelnut, gray dogwood, nanny berry, silky dogwood and juneberry), designed to attract birds or other small wildlife visitors. "Our seedlings help improve the aesthetics, wildlife habitat, and stabilize sensitive areas both in our forest and open spaces that the public interacts with on a daily basis. We provide Christmas tree growers with the planting stock they need to provide quality trees for their customers," Bresnahan said in response to how these plants benefit the state. To determine which specific species to cultivate, Bresnahan said they look at the availability of seeds, all of which are collected locally. While the softwood tree seeds can be saved and stored, and Bresnahan said they are still using some seeds collected in 1984, the hardwood and shrubs are much more difficult as their seed viability is quite short. "We do germination tests with our seeds to help determine the proper seeding rates each year," Bresnahan said. "We have approximately 12 acres in production each year. Every three to four years we take areas out of production and plant with cover crops to improve soil quality for future production. "In August we take soil samples in the areas we plan on planting. After we receive the results, we amend the soil, prepare the seed beds and plant the seed," he continued. "This usually takes place in the month of October. "During the spring after the frost comes out of the ground, we lift desired seedlings out with a specialized lifter and the seedlings are graded and sewn into a lined craft paper bag and placed in a cooler, so they remain dormant until our customers pick them up or they are delivered." Many of the shrubs are ready for new homes after only one season, while the hardwood trees take two growing seasons before they are mature enough for transplant and the softwood trees remain for a third year before being lifted. Since there is a desire for some of the seedlings to be slightly larger, not all plants are lifted on that schedule and some are held for an extra year. "After (the seedlings have been lifted and processed), we get busy putting shade over our germinating seedlings, remove the shade from our 2-year-old seedlings and replant our transplants," Bresnahan explained. "Early summer, we begin to fertilize our 2-year-plus seedlings and irrigation begins on all of our seedlings if needed. "Then there is always weeding. The 12 to 13 acres of seed beds will need to be weeded three or four times during the summer to insure we get the best possible growth. And then we start all over in the fall."

SOURCE:- https://www.sentinelsource.com/elf/it_takes_a_farm/from-seed-to-tree/article_c3c8867e-0a15-11e9-b840-d742835cff41.html