

Michigan Time Traveler

An educational supplement produced by Lansing Newspapers In Education, Inc. and the Michigan Historical Center.

KIDS' History

Higgins Lake Nursery

Today the Michigan Time Traveler takes you back 100 years to the birth of the state's first tree nursery—Higgins Lake Nursery.

Michigan's First Tree Nursery

A tree nursery is a place where lots of trees are grown from seeds. Once they are big enough, they are transplanted to the places where they will grow into big trees. In 1903, Michigan started its first tree nursery.

By 1903 lumbering and fires had cleared much of the land in northern Michigan. People thought that once the trees were gone, farmers could use the land. But the soil was poor—it lacked nutrients—no crops would grow.

People also realized that North America's forests were not going to last forever. So, the Michigan legislature established the Michigan State Forestry Commission to create tree conservation—protecting and preserving—programs. The commission decided to plant trees to reforest the cutover lands.

In 1903 Professor Filibert Roth, who worked for the federal government and taught at the University of Michigan, became the first State Forest Warden. He was in charge of creating a forest reserve near Houghton Lake and Higgins Lake in Crawford and Roscommon Counties.

A local farmer, Joe Nichols, sold five acres of his land at Higgins Lake to the commission for the state's first tree nursery.

First, workers fenced and fertilized the land to prepare it for the planting. At the time, only weeds and huckleberry bushes grew in the sandy soil.

Professor Roth and his crew built the first seed beds—four feet wide and 40 feet long. They planted forty-three pounds of seeds representing twelve species of trees, including red, white and jack pines, scotch pine, sugar pine and Norway spruce. They wanted to determine which varieties would do best in the area. By 1904 some 600,000 plants were thriving.

The Forest Warden's Report

Professor Filibert Roth, the Forest Warden, wrote in the report of the Michigan Forestry Commission for the years 1903-4:

There was established seedbeds and nursery in the southeast corner . . . on a spot of about four acres selected and partly used in an attempt at some experiment . . . The land was neglected . . . full of stumps . . . and full of weeds, including the mischievous trailing blackberry whose roots are almost indestructible. A large amount was done in grubbing, fencing and preparing the land. . . .



A small portion of the tract was specially treated, given a liberal dose of one of Swift's fertilizers and then laid out in seed beds, 4 X 40 feet. . . .

The seed was put in under difficulties. The soil had to be worked just before seeding, and the dry weather had made a perfect dust bed of the upper layer, about two inches deep. . . . The dust was raked back, the half dry soil below this was watered at once with sprinkling can, the seed sown broad cast, the moist covering earth, specially prepared . . . and the whole bed at once covered with straw before the hot sun had a chance to dry out the soil. In this way, the seeds were all put in; closely watched and as soon as they began to peep through the covering layer of earth, the straw was removed and the beds were screened. . . .

State Tree The towering white pine (*Pinus strobus*) is a symbol of one of Michigan's greatest industries—lumbering. Public Act 7 of 1955 designated the white pine as the state tree.

Considerable damage was done by birds but far more by the ordinary striped gopher which proved quite a pest and in spite of a shot gun completely destroyed all seeds of nut and sugar pine and much of white pine.

Children in Museum Club, an after-school program at the Michigan Historical Museum, try their hand at rubbing pinecones on a metal screen to separate seeds and examine a historic photo of tree planting at Higgins Lake Nursery. (Photos by Chris Dancisak)



From Pinecones to Trees

In the forest, pinecones drop to the ground, slowly dry out and release their seeds.

Foresters had to learn how to harvest seeds from thousands of cones so they could plant them in the nursery.

Foresters around the state brought cones to Higgins Lake Nursery. Nursery workers stored the pinecones in a cone barn. They stirred the cones often to prevent mold. They then heated the naturally moist pinecones on trays stacked in an oven for eight hours at 130 degrees. As the cones dried, they opened up.

Next, workers put the cones in the tumbler. The cones bounced around until the seeds were shaken loose and fell to the floor. The nursery workers then collected the seeds.

About one quarter of the seeds did not fall out of the cones, so they put the cones in a large metal tank and sprinkled them with water. The water caused the cones to close. Then they repeated the heating and shaking processes, causing the remaining seeds to fall out.

After the second treatment, the nursery workers swept the seeds from the floor and rubbed them with their hands through screens to remove the seed wings. They then ran the seeds

Women weed seedbeds at the Higgins Lake Nursery c1950s. (State Archives)

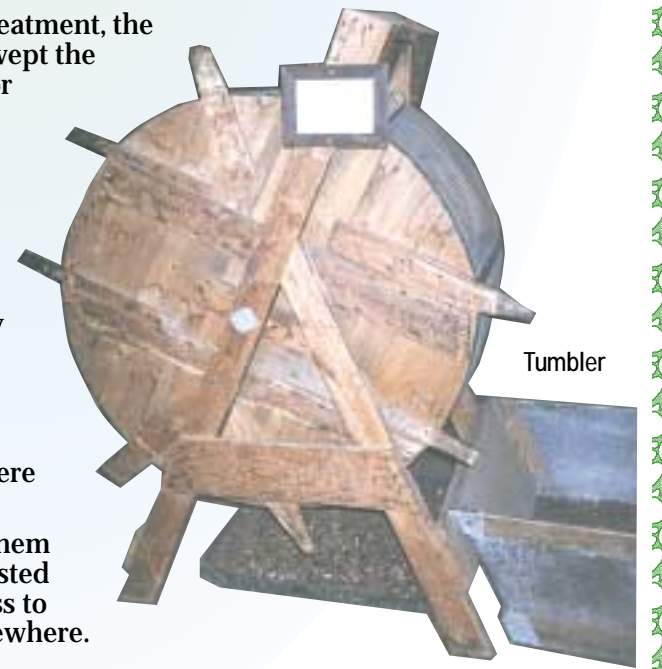


through a fanning mill several times to remove the dust, dirt and hollow seeds. They weighed the clean seeds and placed them in ten gallon cream cans in a cool room in the packinghouse cellar until they were sold or planted in the nursery. A bushel of cones produced about 12 ounces of seeds. There were about 3,000 seeds to the ounce.

Nursery workers planted the seeds and let them grow for two to three years. Then they harvested the seedlings and packed them in moist moss to keep them fresh until they were planted elsewhere.



Oven



Tumbler

North Higgins Lake State Park-2003

Celebrate the 100th anniversary of Michigan's first tree nursery with new exhibits at North Higgins Lake State Park, August 9, 2003, 10 a.m.—4 p.m. This will be part of the Annual Forest Fest (normally at Hartwick Pines) and also the Department of Natural Resources "Adopt A Forest" Annual Picnic.

Take a self-guided tour through the historic state forest nursery and visit the Civilian Conservation Corps (CCC) Museum. During the Great Depression, 100,000 young men did a variety of conservation and reforestation projects in Michigan including planting 484 million trees, many grown from seeds at the Higgins Lake Nursery.

The park has 210 campsites and 11 miles of hiking trails. It features a variety of trees, plants, birds and animals.

Things To Do

Visit the CCC exhibit in the 1930s gallery.

Check out these Web sites:

Go to our exhibits and events and find out more about the Civilian Conservation Corps Museum <http://www.michiganhistory.org>

Michigan Forest Resource Alliance <http://www.dsisd.k12.mi.us/mff/>

Michigan Forest Association <http://www.i-star.com/users/mfa/index.htm>

At the Michigan Historical Museum

The Michigan Historical Museum is located two blocks west of the Capitol in downtown Lansing. Museum admission is free. Hours: Monday-Friday:

9 a.m.- 4:30 a.m.; Saturday: 10 a. m. - 4:00 p.m.; Sunday: 1-5 p.m. Telephone hotline: (517) 373-3559. Visit the Michigan Historical Museum's Web site: <http://www.michiganhistory.org>

Nursery Time Line

1860s-90s: Michigan leads the nation in cut timber.

1871: First great fire sweeps across Michigan from Lake Michigan to Lake Huron.

1881: Fire in Michigans Thumb leads to first relief effort of the American Red Cross.

1886: The Michigan legislature passes Public Act 259 to create an independent Forestry Commission.

1899: Public Act 227 makes the Forestry Commission a state agency.

1903: Professor Filibert Roth starts the experimental tree nursery.

1904: Nurserymen plant 43 pounds of seed.

1906: Twenty-seven tree species grow in the nursery.

1923: The cone barn and packing house are constructed.

1931: Over 22 million seedlings are shipped.

1933: The nearby Camp Higgins Lake Civilian Conservation Corps Camp begins operating the nursery. It does so until 1942.

1938: Thirty thousand acres of state forest land are planted with seedlings from Higgins Lake Nursery.

1962: The seed extraction process at the cone barn ends.

1985: Ground is broken for the Civilian Conservation Corps (CCC) Museum.

1986: The CCC Museum opens.

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