

Plant Propagation Protocol for *Prunus pensylvanica*

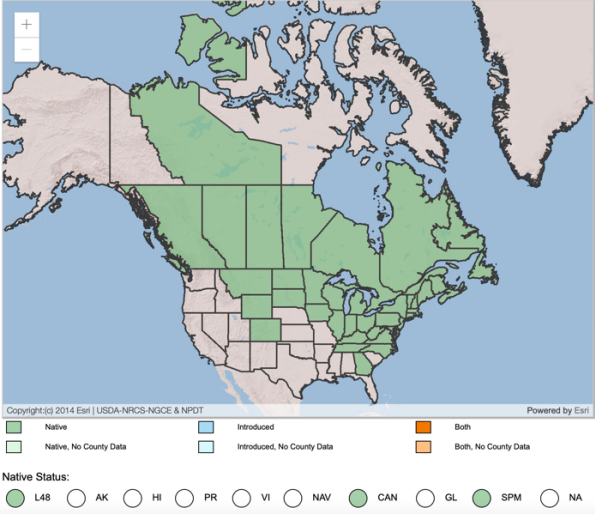
ESRM 412 – Native Plant Production


URL: <https://courses.washington.edu/esrm412/protocols/2021/PRPE2.pdf>

TAXONOMY

Plant Family	
Scientific Name	Rosaceae
Common Name	Rose Family
Species Scientific Name	
Scientific Name	<i>Prunus pensylvanica</i> L. f.
Varieties	<i>Prunus pensylvanica</i> L. f. var. <i>pensylvanica</i> <i>Prunus pensylvanica</i> L. f. var. <i>saximontana</i> Rehder [5]
Sub-species	Missing
Cultivar	Missing
Common Synonym(s)	<i>Cerasus pensylvanica</i> (L.f.) Loisel. <i>Prunus cerasifolia</i> S. Watson <i>Prunus pennsylvanica</i> Sarg. <i>Prunus pensylvanica</i> var. <i>pensylvanica</i> [8]
Common Name(s)	Pin cherry, bird cherry, fire cherry, red cherry [2,3]
Species Code (as per USDA Plants database)	PRPE2 [5]

GENERAL INFORMATION

Geographical range	 <p>Widespread across much of Canada, common in New England and the Great Lakes Regions. Scattered growth also occurs in the Rocky Mountains. [5] Present in the Pacific Northwest as horticultural plantings but this species is not native here [8]</p>
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Ecological distribution	Grows in dry to moist clearings, open woods, woodland edges and disturbed sites. [1]
Climate and elevation range	Missing
Local habitat and abundance	Boreal forest region with white spruce, black spruce, balsam fir, paper birch, quaking aspen, chokecherry, mountain maple, speckled alder [1]
Plant strategy type / successional stage	The seeds sprout easily after fire and it is a generally short-lived tree (20-40 years). This tree grows rapidly, and forms stands that provide shade to growing seedlings that will most likely take over the site when the pin cherry dies creating an opening for the growing seedlings. [1]
Plant characteristics	 <p>Grows as a shrub or small tree. Grows 5-15 m tall with a round-topped crown of foliage. The leaves are thin, and flowers occur in groupings in the spring. The tree produced bright red drupes. [1]</p>

PROPAGATION DETAILS

Ecotype	Missing
Propagation Goal	Plants grown from seed [1]
Propagation Method	Seed (while it has been hypothesized that due to the sprouting vigor of this plant it should be able to be grown from cuttings this has not been successfully done in the literature) [7]
Product Type	Plug
Stock Type	Container
Time to Grow	1 year
Target Specifications	Missing
Propagule Collection Instructions	Collect fruits in late summer when they are at their peak of ripeness and clean the pulp off of the seeds [4]
Propagule Processing/Propagule Characteristics	The seeds of Pin Cherry have been found to be able to be dormant for long periods of time. This is because the trees shed many seeds and then when the parent tree dies, either due to time or to fire, all of the banked seeds that are in the ground are able to sprout. [6]
Pre-Planting Propagule Treatments	Soaking the seeds can be helpful. Soak the seeds for 24 hours and then follow with 30 days of stratification with 5 days at 41 °F alternating with 5 days at 86 °F. The next step is 60 to 90 days of stratification at 41 °F. Do this stratification in damp sand.

	Collected seeds can also be stored at 37 to 41 °F for 3-5 years. Pin cherry seeds have retained viability for up to 10 years when stored in sealed containers at 34 to 38 °F [1]
Growing Area Preparation / Annual Practices for Perennial Crops	Missing
Establishment Phase Details	10-day germination period with 12 hours at 41 °F alternating with 12 hours at 86 °F. This procedure can be expected to achieve at least 75% germination. Prick out individual seedlings when they are large enough to handle. Grow in a greenhouse or cold frame for their first winter. [1]
Length of Establishment Phase	3 months
Active Growth Phase	Plant the seedlings outside in late spring or early summer of their first year [1]
Length of Active Growth Phase	4 months
Hardening Phase	Leave the plants outside to experience their first winter
Length of Hardening Phase	Missing
Harvesting, Storage and Shipping	Missing
Length of Storage	Missing
Guidelines for Out planting / Performance on Typical Sites	Missing
Other Comments	Pin cherry also suckers and could in theory grow from cuttings, but this has not been demonstrated with much success. All of the parts of the plant that are not the fruit are very poisonous to humans. [7]

INFORMATION SOURCES

References	<p>[1] "Species: Prunus pensylvanica." <i>Fs.fed.us</i>. Fire Effects Information System (FEIS). Accessed May 2021. https://www.fs.fed.us/database/feis/plants/tree/prupen/all.html.</p> <p>[2] "Prunus pensylvanica (Pin Cherry)." <i>Minnesotawildflowers.info</i>. Minnesota Wildflowers. Accessed May 2021. https://www.minnesotawildflowers.info/tree/pin-cherry.</p> <p>[3] "Prunus pensylvanica- L.f." <i>pfaf.org</i>. Plants for a Future. Accessed May 2021. https://pfaf.org/User/Plant.aspx?LatinName=Prunus+pensylvanica.</p>
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	<p>[4] "Prunus pensylvanica." <i>Plants.ces.ncsu.edu</i>. NC State Extension Gardener Plant Toolbox. Accessed May 2021. https://plants.ces.ncsu.edu/plants/prunus-pensylvanica/.</p> <p>[5] "Prunus pensylvanica L. f.." <i>plants.usda.gov</i>. USDA National Plant Data Team. 2014. https://plants.usda.gov/home/plantProfile?symbol=PRPE2.</p> <p>[6] "Pin Cherry." <i>Srs.fs.usda.gov</i>. G. W. Wendel. Accessed May 2021. https://www.srs.fs.usda.gov/pubs/misc/ag_654/volume_2/prunus/pensylvanica.htm.</p> <p>[7] "Handbook on Seeds of Browse-Shrubs and Forbs." The Browse-Shrub and Forb Committee of the Association of Official Seed Analysts. USDA Forest Service. Published 1978. Page 90. http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=9ACA42A4EBBC4539AD6F34B236CB01A0?doi=10.1.1.297.6946&rep=rep1&type=pdf.</p> <p>[8] "Prunus pensylvanica L.f." <i>theplantlist.org</i>. The Plant List: a working list of all plant species. Accessed May 2021. http://www.theplantlist.org/tpl1.1/record/rjp-1021.</p>
Other Sources Consulted	<p>[9] "Prunus pensylvanica L." <i>library.ualberta.ca</i>. University of Alberta. 2014. https://era.library.ualberta.ca/items/b6e68cb6-a352-4f53-81ba-a900fb442121/view/242539c7-2fb6-42d9-be8d-03d5c7b85089/Prunus-20pensylvanica.pdf.</p> <p>[10] "Prunus pensylvanica." <i>Nativeplanttrust.org</i>. Native Plant Trust Go Botany. Accessed May 2021. https://gobotany.nativeplanttrust.org/species/prunus/pensylvanica/.</p>
Protocol Author	Ava Kloss-Schmidt
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