

**Plant Propagation Protocol for [*Crataegus succulenta*]**

ESRM 412 – Native Plant Production

URL: [https://courses.washington.edu/esrm412/protocols/\[2022\]/\[CRSU.pdf\]](https://courses.washington.edu/esrm412/protocols/[2022]/[CRSU.pdf])



**TAXONOMY**

<b>Plant Family</b>	
Scientific Name	<i>Crataegus succulenta</i>
Common Name	Fleshy Hawthorn
<b>Species Scientific Name</b>	
Scientific Name	<i>Crataegus succulenta</i> Schrad.
Varieties	NA
Sub-species	NA
<b>Cultivar</b>	
Common Synonym(s)	NA
Common Name(s)	Fleshy Hawthorn, succulent hawthorn, round-fruited cockspurthorn
Species Code (as per USDA Plants database)	CRSU5
<b>GENERAL INFORMATION</b>	
Geographical range	Native all throughout Washington and Oregon



Ecological distribution	Grows in moist, open places; forest edges, thickets, shorelines, streamside areas, roadsides (Pojar & MacKinnon)
Climate and elevation range	Low to mid elevation, moist climate (Pojar & MacKinnon)
Local habitat and abundance	Can grow almost everywhere with enough moisture
Plant strategy type / successional stage	Late stage, understory plant (FEIS)
Plant characteristics	Shrub/Tree, grows 15 to 20 feet tall

**PROPAGATION DETAILS**

Ecotype	NA
Propagation Goal	Seedlings
Propagation Method	Seed
Product Type	Propagules

Stock Type	
Time to Grow	2+ years, 18 months for germination
Target Specifications	
Propagule Collection Instructions	Collect fruits when ripe in fall
Propagule Processing/Propagule Characteristics	22,600 seeds/lb (FEIS, Black Hawthorn)
Pre-Planting Propagule Treatments	<p>Clean fruits, use a sieve to separate seeds from the flesh</p> <p>Extracted seed should be mixed with horticultural sand placed in pot with rocks in bottom of pot, covered in sand, horticultural sand/seed mix on top, covered in second layer of sand. Place pot in shady spot outside. Pots remain outside for 18 months, make sure to keep moist. (TCV)</p> <p>Fresh seeds - Place seeds in a pot as soon as they are ripe in the fall, place pots in a cold frame. Some seeds may germinate the next spring, most will take until the following spring, going through two winters of dormancy, a few may even take a third winter before they germinate. (PFAF)</p> <p>Stored seeds – same as above, but germination time MAY be improved. Soak seeds overnight in warm water, place in plastic bag with small amount of moist sand and seal to keep moisture in. Store in dark place for 3 months at 15 degrees C and then for another 3 months at 4 degrees C before potting seeds. Most of the seeds will still take the full 18 months to germinate. (PFAF)</p>
Growing Area Preparation / Annual Practices for Perennial Crops	<p>In 1 liter pots, sow 3 seeds and cover with up to 10 mm of compost. (TCV)</p> <p>On a seedbed broadcast the seed densely, firmly press the seeds into the soil, cover with grit. (TCV)</p>
Establishment Phase Details	Make sure to keep the plant moist as much as possible. Keep an eye out for mildew growth.
Length of Establishment Phase	18 months, time may be reduced with proper pre-treatment techniques, but most will still take the full time
Active Growth Phase	NA
Length of Active	NA

Growth Phase	
Hardening Phase	NA
Length of Hardening Phase	NA
Harvesting, Storage and Shipping	NA
Length of Storage	NA
Guidelines for Outplanting / Performance on Typical Sites	Should be ready for outplanting after either 1 or two years. (TCV) Prepare the site by clearing away any weeds or grasses that may compete with the plant. (TCV)
Other Comments	Not much information is available specifically regarding this species of hawthorn, most of the propagation information is taken from information about black hawthorn, <i>Crataegus douglasii</i> , which grows in similar environments, or from sources regarding the <i>Crataegus</i> genus in general.  Not much specific information was available for the different growing phases, for the specific species or for the propagation of Hawthorn in general.

### INFORMATION SOURCES

References	<p><i>Crataegus succulenta schrad.</i> Crataegus succulenta - Trees and Shrubs Online. (n.d.). Retrieved May 19, 2022, from <a href="https://treesandshrubsonline.org/articles/crataegus/crataegus-succulenta/">https://treesandshrubsonline.org/articles/crataegus/crataegus-succulenta/</a></p> <p>Leendertz, L. (2017, October 11). <i>Hawthorn propagation - by Lia Leendertz.</i> Hartley Botanic. Retrieved May 21, 2022, from <a href="https://hartley-botanic.co.uk/magazine/hawthorn-propagation/">https://hartley-botanic.co.uk/magazine/hawthorn-propagation/</a></p> <p>MacKinnon, A., Pojar, J., &amp; MacKinnon, A. (2016). Shrubs. In <i>Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia &amp; Alaska</i> (pp. 73–73). essay, Partners Publishing.</p> <p><i>Crataegus Species.</i> Plants for a Future. (n.d.). Retrieved May 21, 2022, from <a href="https://pfaf.org/user/cmspage.aspx?pageid=59">https://pfaf.org/user/cmspage.aspx?pageid=59</a></p> <p>United States Forest Service. (n.d.). <i>Crataegus douglasii.</i> Fire Effects Information System. Retrieved May 21, 2022, from <a href="https://www.fs.fed.us/database/feis/plants/shrub/cradou/all.html">https://www.fs.fed.us/database/feis/plants/shrub/cradou/all.html</a></p>
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	<p><i>Hawthorn - how to grow hawthorn from seed: A guide from TCV.</i> How To Grow Trees. (n.d.). Retrieved May 21, 2022, from <a href="https://treegrowing.tcv.org.uk/grow/tree-recipes/hawthorn">https://treegrowing.tcv.org.uk/grow/tree-recipes/hawthorn</a></p>
Other Sources Consulted	<p><i>Crataegus succulenta - fleshy hawthorn.</i> Native Plant Trust: Go Botany. (n.d.). Retrieved May 21, 2022, from <a href="https://gobotany.nativeplanttrust.org/species/crataegus/succulenta/#:~:text=%20Crataegus%20succulenta%20—%20%20fleshy%20hawthorn%20,virilis%20Sarg.%20%20...%20Forest%20edges%2C...%20More%20">https://gobotany.nativeplanttrust.org/species/crataegus/succulenta/#:~:text=%20Crataegus%20succulenta%20—%20%20fleshy%20hawthorn%20,virilis%20Sarg.%20%20...%20Forest%20edges%2C...%20More%20</a></p> <p><i>Crataegus succulenta Schrad. ex link.</i> GBIF. (n.d.). Retrieved May 21, 2022, from <a href="https://www.gbif.org/species/3016137">https://www.gbif.org/species/3016137</a></p>
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