

Plant Propagation Protocol for [Insert Species]


ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2026/HEMA21.pdf>

McNab Cypress (3)



TAXONOMY	
Plant Family	
Scientific Name	Cupressaceae Gray (1)
Common Name	Cypress Family (1)
Species Scientific Name	
Scientific Name	<i>Hesperocyparis macnabiana</i> (A. Murray bis) Bartel (1)
Varieties	NA
Sub-species	NA
Cultivar	NA
Common Synonym(s)	Callitropsis macnabiana (A. Murray bis) D.P. Little (1) Cypresses A. Murray bis (1) Neocupressus macnabiana (A. Murray bis) de Laub (1)
Common Name(s)	McNab’s Cypress (1)

Species Code (as per USDA Plants database)	HEMA21 (1)
GENERAL INFORMATION	
Geographical range	(1) 
Ecological distribution	Wide distribution found in drought tolerant shrublands known as chaparrals, oak and coniferous woodlands (2)
Climate and elevation range	Mid elevation, 1000-2600 ft (4)
Local habitat and abundance	Adapted to the mediterranean climate of the Sacramento Valley enduring hot, dry summers and wet winters (5)—associated species include blue oak (<i>Quercus douglasii</i>), california sycamore (<i>platanus racemosa</i>), western redbud (<i>cercis occidentalis</i>), oregon ash (<i>fraxinus latifolia</i>) and others (6) also redwoods and Douglas firs (8)
Plant strategy type / successional stage	Found in sunnier habitats because seeds are shade intolerant. Mcnab Cypress is found in more exposed sites. (8)
Plant characteristics	Perennial (1), tree, 10-39 ft tall, evergreen (2), fire tolerant (3)
PROPAGATION DETAILS: FROM SEED	
Ecotype	Coastal northern california through northern oregon (7)
Propagation Goal	Plants (7)
Propagation Method	Seed (7)
Product Type	Container (plug) (7)
Stock Type	163 ml containers (7)
Time to Grow	22 weeks (7)
Target Specifications	Firm plug in container (7)
Propagule Collection Instructions	Find trees with cones (start production around 18 years) and collect (3). Brown color indicates mature seed cones (4)
Propagule Processing/Propagule Characteristics	Cones contain about 75-105 seeds each (8)

Pre-Planting Propagule Treatments	<p>Serotinous cones require heat to release seeds. specifically, a blast of 500 degree celsius air for at least 2 minutes should pop the cones open. (3). Can also boil cones for 30-60 seconds (4)</p> <p>Once seeds are collected cool moist stratification for 30 days at 34 degrees is necessary (4)</p>
Growing Area Preparation / Annual Practices for Perennial Crops	Greenhouse growing facilit. sow seeds directly into containers with 40:20:20:20 peat:composted fir bark:perlite:pumice with nutricote controlled release fertilizer with .9 g nutricote per container (7)
Establishment Phase Details	germination generally occurs at 72 degrees Fahrenheit (4) seeds require bare mineral soil in a sunny area for germination and establishment (8)
Length of Establishment Phase	4 weeks (7)
Active Growth Phase	During the growing season apply soluble fertilizer at a rate of 100 to 150 ppm weekly (7)
Length of Active Growth Phase	20 weeks (7)
Hardening Phase	No dry down done to induce dormancy, move seedlings to outdoor growing area in early September (7)
Length of Hardening Phase	3 to 4 weeks (7)
Harvesting, Storage and Shipping	Harvest seedlings in mid-october store in outdoor growing area ; if shipping, irrigate prior and ship in containers (7)
Length of Storage	Outplant seeds as soon as possible after harvesting (7)
Guidelines for Outplanting / Performance on Typical Sites	Up to 30 fet tall, can reach 50 ft in ideal conditions (4)
Other Comments	These protocol instructions are mainly derived from a 2024 oregon protocol for Lawson’s Cypress, a similarly adapted species within the same family. Further research should be done specifically on McNab Cypress to collect accurate data on this species’s propagation. Germination rates tend to be low—Mcnab cypress is almost exclusively propagated from seed.
INFORMATION SOURCES	

References (see below for full citations)	<ol style="list-style-type: none"> 1. https://plants.sc.egov.usda.gov/plant-profile/HEMA21 2. https://calscape.org/Hesperocyparis-macnabiana-(Mcnab's-Cypress) 3. https://www.cnps.org/rare-plants/a-phoenix-reborn-the-mcnab-cypress-41336 4. https://www.wildflower.org/plants/result.php?id_plant=HEMA21 5. https://en.wikipedia.org/wiki/Sacramento_Valley 6. https://sactree.org/resources/native-trees/ 7. https://nnp.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=cupressaceae-chamaecyparis 8. https://research.fs.usda.gov/feis/species-reviews/hesman
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References

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