

## Plant Propagation Protocol for *Prunus americana*

ESRM 412 – Native Plant Production

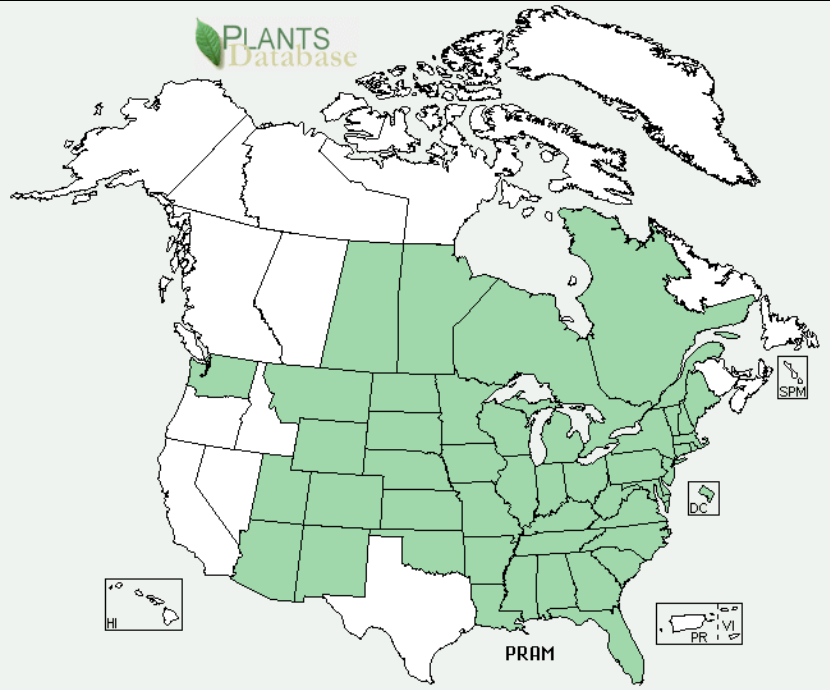
Protocol URL: <https://courses.washington.edu/esrm412/protocols/PRAM.pdf>

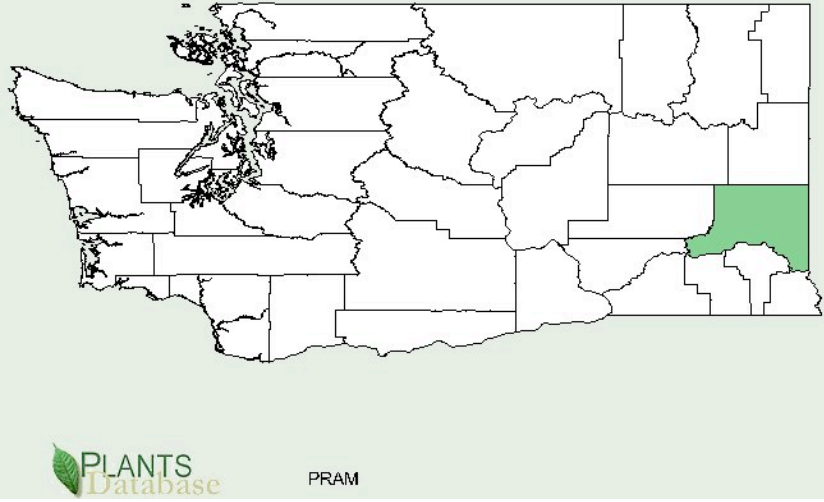


TAXONOMY	
Plant Family	
Scientific Name	Rosaceae
Common Name	Rose family
Species Scientific Name	
Scientific Name	Prunus americana Marshall
Varieties	var. lanata Sudw. var. nigra (Aiton) Waugh
Sub-species	N/A

Cultivar	N/A
Common Synonym(s)	Prunus americana Marshall var. americana  Prunus mexicana S.Watson, sensu Gleason & Cronquist (1991)
Common Name(s)	American plum
Species Code (as per USDA Plants database)	PRAM

### GENERAL INFORMATION

Geographical range	
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Ecological distribution	<p>In the sun, partly shaded, or shaded.</p> <p>Moist soil with pH of about neutral (pH 6.8-7.2).</p> <p>CaCO<sub>3</sub> Tolerance is high</p> <p>Favors moist, rich, well-drained loams (Wildflower).</p>
Climate and elevation range	<p>Intolerant of shade and drought; it requires the equivalent of 22 to 25 inches of precipitation (University of Florida).</p>
Local habitat and abundance	<p>Prairies, woodlands, pastures, and along roadsides and riverbanks (USDA “American”).</p>
Plant strategy type / successional stage	<p>Adaptive to various environment</p>
Plant characteristics	<p>Shrub/tree – Deciduous. Height is about 15 to 20 feet, and it spreads out 12 to 18 feet. Both plant density and growth rate are moderate. Typically multi-trunked or clumping stems (Lewis).</p> <p>Flower – white and bloom in spring.</p>

	Fruit – yellow or orange fleshy fruit, attracting birds (Gilman).
<b>PROPAGATION DETAILS</b>	
Ecotype	N/A
Propagation Goal	Plant
Propagation Method	Seed
Product Type	Propagules - seeds
Stock Type	Seed
Time to Grow	N/A
Target Specifications	N/A
Propagule Collection Instructions	Collect seeds from the fruit in the summer (usually in August) when the color of fruit turns dark purple. Seeds can be extracted by maceration and recovered by flotation (USDA “Plants”).
Propagule Processing/Propagule Characteristics	Fairly low germination – 6.5 seeds per gram (USDA “American”).
Pre-Planting Propagule Treatments	Harvest the fruit in the summer (August), and seeds can be planted outdoors in the fall so they are naturally “cold stratified.” Natural germination occurs in the first or second year after seedfall, depending on the year (USDA “Plants”).  Put seeds in 50°F or cooler over the winter. Seeds need to be air dried and stored in sealed containers. Cold stratification takes up to 6 months in a moist environment to break seed dormancy.  Seedlings reach suitable size for transplanting in one to two

	<p>years (USDA “Plants”).</p> <p>Germination environment temperature is 86 °F during the day and 68 °F at night. Stratify in moist sand (University of Wisconsin).</p>
Growing Area Preparation / Annual Practices for Perennial Crops	Space plants 8 feet within rows and 16 feet between rows (Missouri).
Establishment Phase Details	N/A
Length of Establishment Phase	1 to 2 years until transplanting (USDA).
Active Growth Phase	1 to 2 years
Length of Active Growth Phase	1 to 2 years
Hardening Phase	N/A
Length of Hardening Phase	N/A
Harvesting, Storage and Shipping	N/A
Length of Storage	6 months
Guidelines for Outplanting / Performance on Typical Sites	American plum is intolerant of heavy browsing and trampling (Lewis).
Other Comments	N/A
<b>INFORMATION SOURCES</b>	
References	- Gilman, Edward F. "Prunus americana American Plum1." EDIS New Publications RSS. 2013. University of Florida. 22

	<p>Apr. 2014 &lt;<a href="http://edis.ifas.ufl.edu/fp492">http://edis.ifas.ufl.edu/fp492</a>&gt;.</p> <p>- Lewis, James K.; Van Dyne, George M.; Albee, Leslie R.; Whetzal, Frank W. 1956. Intensity of grazing: Its effect on livestock and forage production. Bulletin 459. Brookings, SD: South Dakota State College, Animal Husbandry Department; Agricultural Experiment Station. 44 p. [11737]</p> <p>- Missouri Botanical Garden. "Prunus americana - Plant Finder." Prunus americana - Plant Finder. 22 Apr. 2014 &lt;<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=e830">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=e830</a>&gt;.</p> <p>- NC State University. "Prunus americana." Prunus americana. 22 Apr. 2014 &lt;<a href="http://plants.ces.ncsu.edu/plants/all/prunus-americana/">http://plants.ces.ncsu.edu/plants/all/prunus-americana/</a>&gt;.</p> <p>- Reed University. "Family: Rosaceae." Family: Rosaceae. 22 Apr. 2014 &lt;<a href="http://academic.reed.edu/biology/Courses/BIO332/plantfamily/family_info/Rosaceae.html">http://academic.reed.edu/biology/Courses/BIO332/plantfamily/family_info/Rosaceae.html</a>&gt;.</p> <p>- University of Wisconsin. "Prunus americana." Prunus americana: UW-Stevens Point Freckmann Herbarium. 22 Apr. 2014 &lt;<a href="http://wisplants.uwsp.edu/scripts/detail.asp?SpCode=PRUAME">http://wisplants.uwsp.edu/scripts/detail.asp?SpCode=PRUAME</a>&gt;.</p> <p>- USDA. "American Plum Prunus Americana Marsh." USDA NRCS Plant Materials Program. 22 Apr. 2014 &lt;<a href="https://plants.usda.gov/factsheet/pdf/fs_pram.pdf">https://plants.usda.gov/factsheet/pdf/fs_pram.pdf</a>&gt;.</p> <p>- USDA. "Plants Profile for Prunus americana (American plum)." Plants Profile for Prunus americana (American plum). 22 Apr. 2014 &lt;<a href="http://plants.usda.gov/core/profile?symbol=PRAM">http://plants.usda.gov/core/profile?symbol=PRAM</a>&gt;.</p> <p>- Wildflower Center. "NPIN: Native Plant Database." Lady Bird Johnson Wildflower Center. 27 Mar. 2014. 22 Apr. 2014 &lt;<a href="http://www.wildflower.org/plants/result.php?id_plant=PRAM">http://www.wildflower.org/plants/result.php?id_plant=PRAM</a>&gt;.</p> <p>- University of Florida. "Prunus americana." Prunus americana. 22 Apr. 2014 &lt;<a href="http://hort.ifas.ufl.edu/database/lppi/sp298.shtml">http://hort.ifas.ufl.edu/database/lppi/sp298.shtml</a>&gt;.</p>
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Other Sources Consulted	<p>- Holly Acres Nursery. "American plum Rosaceae Prunus americana." 22 Apr. 2014 &lt;<a href="http://www.hollyacresnursery.com/American%20Plum.htm">http://www.hollyacresnursery.com/American%20Plum.htm</a>&gt;.</p> <p>- Baskin, Jerry. "Protocol Information." Protocol Information. 2009. 22 Apr. 2014 &lt;<a href="http://www.nativeplantnetwork.org/network/ViewProtocols.aspx?ProtocolID=1970">http://www.nativeplantnetwork.org/network/ViewProtocols.aspx?ProtocolID=1970</a>&gt;.</p>
Protocol Author	Sakura Shibata
Date Protocol Created or Updated	06/09/14