

## Plant Propagation Protocol for *Lathyrus palustris*

ESRM 412 – Native Plant Production


URL: <https://courses.washington.edu/esrm412/protocols/2023/LAPA4.pdf>





Image of *Lathyrus palustris* courtesy [climbers.lsa.umich.edu](http://climbers.lsa.umich.edu)

TAXONOMY	
Plant Family	
Scientific Name	Fabaceae Lindl. <sup>1</sup>
Common Name	Pea family <sup>1</sup>
Species Scientific Name	
Scientific Name	<i>Lathyrus palustris</i> L. <sup>1</sup>

Varieties	<i>Lathyrus palustris</i> L. var. <i>linearifolius</i> Ser. (LAPAL), <i>Lathyrus palustris</i> L. var. <i>myrtifolius</i> (Muhl. ex Wild.) A. Gray (LAPAM), <i>Lathyrus palustris</i> L. var. <i>macranthus</i> (T.G. White) Fernald (LAPAM2), <i>Lathyrus palustris</i> L. var. <i>meridionalis</i> Butters & H. St. John (LAPAM3), <i>Lathyrus palustris</i> L. var. <i>pilosus</i> (Cham.) Ledeb. (LAPAP), <i>Lathyrus palustris</i> L. var. <i>retusus</i> Fernald & H. St. John (LAPAR) <sup>1</sup>
Sub-species	<i>Lathyrus palustris</i> L. ssp. <i>pilosus</i> (Cham.) Hultén (LAPAP3) <sup>1</sup> , <i>L. palustris</i> subsp. <i>nudicaulis</i> (Willk.) P.W. Ball, <i>L. palustris</i> subsp. <i>palustris</i> , <i>L. palustris</i> subsp. <i>exalatus</i> H.B. Cui <sup>6</sup>
Cultivar	None Found
Common Synonym(s)	<i>Lathyrus myrtifolius</i> Muhl. ex Wild. (LAMY), <i>Orobis myrtifolius</i> Alef. (ORMY) <sup>1</sup>
Common Name(s)	Slenderstem Peavine, Marsh Pea, Marsh Vetching, Wing-stemmed Wild Pea-vine <sup>6</sup>
Species Code (as per USDA Plants database)	LAPA4 <sup>1</sup>
<b>GENERAL INFORMATION</b>	

Geographical range	 <p>Image Courtesy the USDA Website<sup>1</sup>          Ranges outside of North America include Europe, including Britain, from Norway south and east to Northern Spain, Siberia and Japan<sup>7</sup></p>
Ecological distribution	Grows best in low praries, stream valleys, lakeshores, and other locations with sunlight and moist or wet soil. <sup>6</sup> Native to mountainous or arid areas of the Pacific Northwest <sup>2</sup>
Climate and elevation range	Natural Settings consist of: Annual Precipitation: 12.8'' - 101.8'' <sup>8</sup> Summer Precipitation: 0.59'' - 3.53'' <sup>8</sup> Cold Tolerance down to -25°C when dormant <sup>10</sup> Elevation: < 100 meters <sup>9</sup>
Local habitat and abundance	Abundant in marshy habitats <sup>6</sup> with full or partial sun, wet to moist condition, and soil with loam or sand. <sup>12</sup>
Plant strategy type / successional stage	Plant is spread via rhizomes and gravitational dispersal of seeds. <sup>6</sup> Tolerant of standing water, if not permanent, and will sprawl across the ground in the absence of some kind of structural support. <sup>12</sup> No serious problems with insects or disease. May become weedy. <sup>14</sup>

Plant characteristics	Erect to sprawling perennial dicot <sup>1</sup> herbaceous vine
<div data-bbox="232 247 625 751">  </div> <div data-bbox="625 247 1385 751">  </div> <p>Image of <i>Lathyrus palustris</i> seed and pod courtesy <a href="https://plants.usda.gov">plants.usda.gov</a> (left) and <a href="https://gobotany.nativeplanttrust.org">gobotany.nativeplanttrust.org</a> (right)</p>	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug) <sup>3</sup>
Stock Type	Adapted from <i>Lathyrus japonicus</i> : Deepot D40 (2.5" diameter and 10" deep) <sup>11</sup>
Time to Grow	Adapted from <i>Lathyrus japonicus</i> : 6 months <sup>11</sup>
Target Specifications	Adapted from <i>Lathyrus japonicus</i> : large plug with improved resilience to drying out during summer growing period <sup>11</sup>

Propagule Collection Instructions	Adapted from <i>Lathyrus japonicus</i> : collect legumes around July and August that have just dried out as that is when seed is ripe but not dispersed from pod yet <sup>11</sup>
Propagule Processing/Propagule Characteristics	Adapted from <i>Lathyrus ochroleucus</i> Hook.: 61 seeds per gram. As long as dormancy has not been broken, seeds have been reported to remain in the seedbank for many years. <sup>13</sup>
Pre-Planting Propagule Treatments	Adapted from <i>Lathyrus japonicus</i> : Dry at room temperature and thresh with brush machine with a solid mantle at low speed to avoid too harsh of scarification. Separate seed from inert matter on a Clipper Office Tester with a 13 round top screen and no bottom screen with air at a medium-high setting. <sup>11</sup> Scarify seed or soak for 24 hours in warm water. <sup>3</sup>
Growing Area Preparation / Annual Practices for Perennial Crops	Sow in standard soil-less seed mix growing media mixed with fine-grade perlite or vermiculite in 1" x 12" pots. <sup>4</sup> Cover seeds with 1/2" of soil as seeds require cool soil and darkness to germinate. <sup>5</sup> Alternately, for direct sowing, press seeds 2" deep in outdoor plot 18" apart in spring when temperatures no longer fall below 40°F. <sup>4</sup>
Establishment Phase Details	Inoculate with nitrogen-fixing bacteria and provide constant temperatures of 55°F to 65°F. <sup>3</sup>
Length of Establishment Phase	20 to 30 days <sup>3</sup> or 7 to 14 days <sup>4</sup>
Active Growth Phase	Place pots in a cold frame or unheated greenhouse. Cooler conditions are better as warm conditions will cause young plants to become soft and leggy. <sup>4</sup>
Length of Active Growth Phase	6 to 8 weeks <sup>3</sup>
Hardening Phase	None Found
Length of Hardening Phase	None Found
Harvesting, Storage and Shipping	None Found
Length of Storage	None Found
Guidelines for Outplanting / Performance on Typical Sites	Plant in full sun with 6 or more hours of direct sunlight a day in a moist area with good drainage. Often blooms in the Summer of first season. Plants get to be 4ft - 9ft tall and 1ft - 3ft in width. <sup>14</sup>

Other Comments	Flowers attract bees <sup>12</sup> , butterflies, and moths. <sup>8</sup>
<b>INFORMATION SOURCES</b>	

## References

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