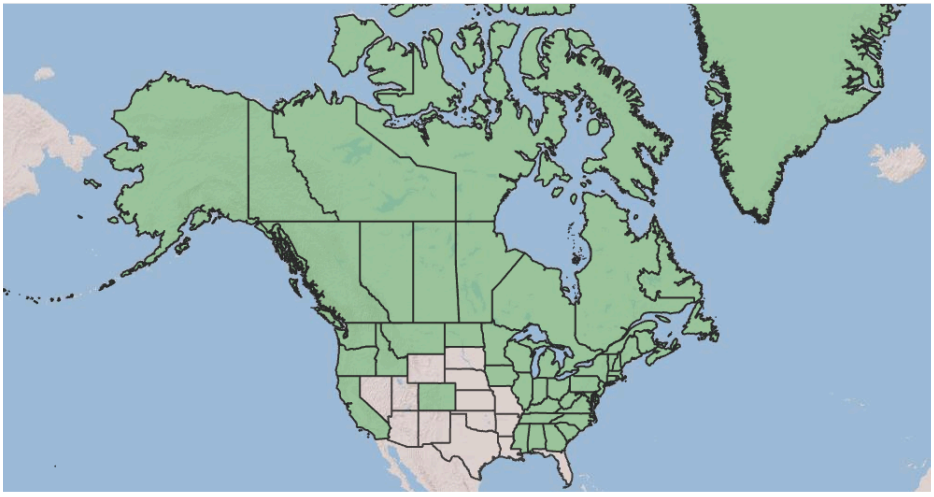
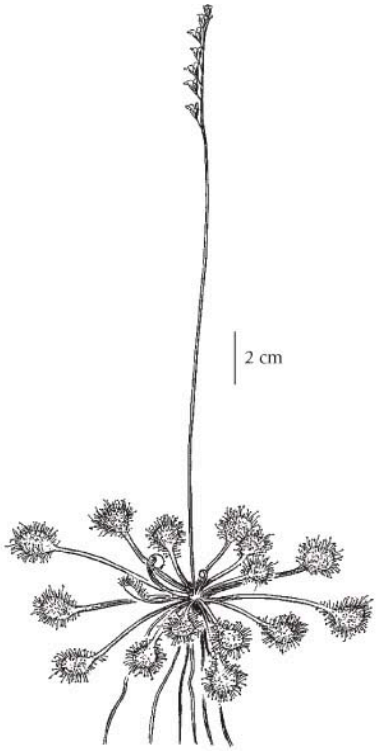
Plant Propagation Protocol for *Drosera rotundifolia*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2025*/*DRRO.pdf*

TAXONOMY	
Plant Family	*Droseraceae* Salisbury[5]
Scientific Name	*Drosera rotundifolia*
Common Name	Roundleaf sundew[6]
Species Scientific Name	
Scientific Name	*Drosera rotundifolia* Linnaeus[6]
Varieties	*Drosera rotundifolia* var. *comosa* Fernald DRROC[11] *Drosera rotundifolia* var. *gracilis* Laestadius DRROG[11] *Drosera rotundifolia* var. *rotundifolia* Linnaeus DRROR[11]
Sub-species	-
Cultivar	-
Common Synonym(s)	Homotypic Synonyms: *Rorella rotundifolia*[9] *Rossolis rotundifolia*[9]
Common Name(s)	Roundleaf Sundew[11]
Species Code (as per USDA Plants database)	DRRO
GENERAL INFORMATION	
Geographical range	 11

Ecological distribution	*Drosera rotundifolia* can be found in: sphagnum bogs, fens, beaver ponds, swamps, peaty gravels, sandy soil, wet sand (such as disturbed bottoms of old sand pits or emergent sandy shorelines) in the North, lake and stream margins, sphagnous streamheads, and seeps in the South (FNA)
Climate and elevation range	Climate: Circumboreal: submontane to subalpine, boreal, cool temperate, and cool mesothermal climates.[3] Elevation: 0-3000m[4]
Local habitat and abundance	"Tree species such as lodgepole pine (Pinus contorta), jack pine (P. banksiana), Sitka spruce (Picea sitkensis), black spruce (P. mariana), white spruce (P. glauca), western hemlock (Tsuga heterophylla), mountain hemlock (T. mertensiana), eastern hemlock (T. canadensis), western redcedar (Thuja plicata), northern white-cedar (T. occidentalis), Alaska-cedar (Chamaecyparis nootkatensis), Atlantic white-cedar (C. thyoides), tamarack (Larix laricina), balsam fir (Abies balsamea), balsam poplar (Populus balsamifera), trembling aspen (P. tremuloides), birch (Betula spp.), and red maple (Acer rubrum) occur as scattered individuals or are present in forests surrounding the bogs or swamps that roundleaf sundew inhabit." "Other species typically associated with roundleaf sundew include leatherleaf (Chamaedaphne calyculata), bog Labrador tea (Ledum groenlandicum), poison sumac (Rhus vernix), bog kalmia (Kalmia polifolia), bog rosemary (Andromeda polifolia), bog cranberry (Vaccinium oxycoccos), blueberries (Vaccinium spp.), willows (Salix spp.), common buckbean (Menyanthes trifoliata), pitcher-plant (Sarracenia purpurea), mountain bladderwort (Urticularia intermedia), slender bladderwort (U. subulata), St. Johnswort (Hypericum spp.), sedges (Carex spp.), sheathed cottonsedge (Eriophorum vaginatum), bluejoint reedgrass (Calamagrostis canadensis), sphagnum mosses (Sphagnum spp.), Schreber's moss (Pleurozium schreberi), and other mosses (Aulacomnium palustre and Polytrichum juniperinum)." [7]
Plant strategy type / successional stage	*Drosera rotundifolia* is shade intolerant. It is very competitive in acid wetlands and can invade disturbed bogs.[7]
Plant characteristics	Drosera rotundifolia is a short-lived perennial forb. It is an insectivorous plant with a basal rosette of leaves. The adaxial surface of the leaves are covered with reddish, glandular hairs tipped with a sticky, glutinous secretion that traps insects. These hairs secrete enzymes that digest trapped insects, allowing the plant to absorb nutrients through its leaves. Its roots are usually shallow, however, it has a taproot that is only functional for a portion of its first year of growth. After this, it is then composed of mostly horizontal adventitious roots. Its inflorescence is a one-sided raceme that produces 2-15 flowers on a scape that ranges from 5-25cm long. One

	rosette can produce one to seven inflorescences. The fruits are capsules that contain many small seeds.[7]  *Drosera rotundifolia* var. *rotundifolia* 4
PROPAGATION DETAILS: FROM SEED	
Ecotype	-
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	Mature plants in their 2nd year of growth[12]
Time to Grow	One year of growth
Target Specifications	Second-year plants, going through one year of growth and dormancy. When the plants break dormancy, they are mature plants.[12]
Propagule Collection Instructions	Capsules should be collected in late summer before seed dispersal due to their small size. Dispersal begins in July, with the majority occurring in fall. (FS USDA) Capsules can then be opened to collect the seeds.
Propagule Processing/Propagule Characteristics	Seeds are viable for up to four years.[12]
Pre-Planting Propagule Treatments	An 18-week 5/1 °C cold stratification with light, followed by a 4-week incubation at either 20/10 °C or 25/15 °C, was shown to have the

	highest germination rate compared to other stratification and incubation conditions.[2]
Growing Area Preparation / Annual Practices for Perennial Crops	*Drosera rotundifolia* was grown in a greenhouse with light, temperature, and humidity control. During the growing season, light was kept at 119 ± 8 µmol/m^2s, temperature was kept at 24 ± 2.0 °C, and humidity was kept at 87.2 ± 12.9 %. During the winter, light was kept at 79 ± 5 µmol/m^2s, temperature was kept at 15 ± 2.0 °C, and humidity was kept at 87.2 ± 12.9%. 4.5 cm diameter, 5 cm deep biodegradable pots were filled with sphagnum moss as the growing medium.[1]
Establishment Phase Details	After light and cold stratification, incubate the seeds at 20/10 °C or 25/15 °C for approximately 4 weeks.[2]
Length of Establishment Phase	4 weeks[2]
Active Growth Phase	Plants should be kept well watered (seed germination) as their roots cannot tolerate desiccation.[12] During the growing season, plants should be slowly transitioned to an outdoor cold frame.
Length of Active Growth Phase	5-6 months: spring to fall.[7]
Hardening Phase	At the end of the growing season, the plants will go dormant, forming a hibernaculum, tightly rolled leaf primordia. The leaves and roots may die back during this dormancy phase.[7]
Length of Hardening Phase	About 2 months, at the end of the growing season.
Harvesting, Storage and Shipping	-
Length of Storage	-
Guidelines for Outplanting / Performance on Typical Sites	-
Other Comments	-
INFORMATION SOURCES	
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Other Sources Consulted	
Protocol Author	Joseph Gessell
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