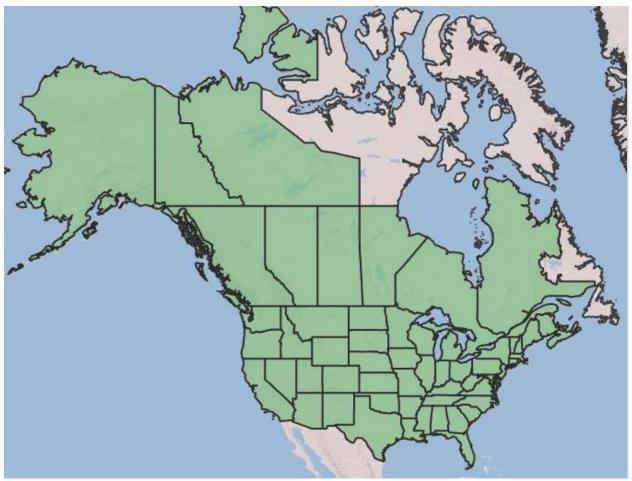
Plant Propagation Protocol for Cicuta maculata

ESRM 412 – Native Plant Production

URL: https://courses.washington.edu/esrm412/protocols/2024/CIMA2.pdf



Geographic spread of Cicuta maculate shown in green. Image courtesy of USDA PLANTS database. [1]

TAXONOMY		
Plant Family		
Scientific Name	Apiaceae [1]	
Common Name	Carrot family [1]	
Species Scientific		
Name		
Scientific Name	Cicuta maculata L.	
Varieties	No identified varieties identified by the USDA PLANTS database.	
Sub-species	Cicuta maculata L. var. maculata [3]	
	Cicuta maculata L. var. angustifolia Hook. [1]	
	Cicuta maculata L. var. bolanderi (S. Watson) G. Mulligan [1]	
	Cicuta maculata L. var. victorinii (Fernald) B. Boivin [1]	

	Cicuta maculata L. var. curtissii (Coult. & Rose) Fern [3]
	Cicuta maculata L. var. californica (Gray) Boivin [10]
Cultivar	No cultivars found.
Common Synonym(s)	Cicuta douglasii (DC.) Coult & Rose [10]
Common Name(s)	Spotted water hemlock, water hemlock, common water hemlock, poison parsnip, spotted cowbane, spotted parsley, beaver poison, suicide root [1][2][4][6]
Species Code (as per USDA Plants database)	CIMA2
	GENERAL INFORMATION
Geographical range	Found in all of the United States excepting Hawaii, and in most of the Canadian provinces and territories, excepting Nunavut and Newfoundland. [1]
Ecological distribution	Generally found in moist environments such as riparian areas or wetlands, as well as open woodlands, swamps, marshes, wet prairies, or manmade ditches along roads. [5]
Climate and elevation range	Found across a range of climates including temperate and extreme temperatures as well as a range of precipitation levels found across North America. [1]
Local habitat and abundance	Generally found in grasslands with moist, well drained soils with alluvial fine-to-mixed substrate. Not commonly found in lower basins due to higher prominence of clay in the soils, suggesting need for drainage. Commonly found with other tall grasses such as <i>Sporobolus michauxianus</i> or <i>Schoenoplectus pungens</i> in middle or upper intertidal zones. Also commonly found near <i>Iris virginica shrevei</i> . Generally found in areas of high species diversity. [5][7]
Plant strategy type / successional stage	As a perennial, is tolerant to high levels of moisture via shallow roots to enable gas exchange and experiences high levels of species overturn in community due to proximity to annual grasses, enabling a competitive advantage over newly-germinating grasses in early spring. [7]
Plant characteristics	Perennial herb reaching approximately 1' in the first year before maturing in the second to up to 8'. Stems are hollow with crossed vasculature in the nodes, and purple-to-green in color. Roots are short and tuber-like. Leaves are alternately attached, clasped at the stem, and trifoliately compound with serrate margins. Flowers are small, white and umbel-like in inflorescence blooming throughout spring to fall and are pollinated by bees, wasps, and butterflies. Flowers have 5 petals, sepals, and stamens. Fruits are dry capsules, non-dehiscent, reaching a diameter of 2 to 4 mm. [3][6][8]



Cicuta maculata L. inflorescence. Image courtesy of North Carolina State University Extension. [8]

PROPAGATION DETAILS: FROM SEED Adapted from Prairie Moon Nursery

	Adapted from Prairie Moon Nursery		
Ecotype	Non-specified. Manufacturer located in Midwest region of the United States, which may indicate that seeds are sourced from moist grasslands in that region. [9]		
Propagation Goal	Plants. [9]		
Propagation Method	Seed (although instructions/generic protocols are given by the same nursery for bare-root and potted propagules.) [9]		
Product Type	Containers (plugs.) [9]		
Stock Type	Non-specified.		
Time to Grow	1 year. [7]		
Target Specifications	Initial growth stage is a low-lying rosette, before shooting upwards in second year of growth with tall stalk. This suggests that basal leaves should be well-developed (6-8 inches or longer) prior to outplanting to ensure survival. [11]		
Propagule Collection Instructions	Non-specified.		
Propagule Processing/Propagule Characteristics	Seeds should be kept in cold stratification or other storage for no longer than 2 years. [7]		
Pre-Planting Propagule Treatments	Seeds are to be kept in media mix of equal proportions of moistened vermiculite, sand, and loam and in a sealed container in 33-38 degrees Fahrenheit, checked weekly for fungal establishment for approximately 120 days. [9]		
Growing Area Preparation / Annual	Media should be low in clay content and high in loam and sand, but specific ratios are not given. As <i>Cicuta maculata</i> 's roots are not deep and instead form short tubers, shallow trays should be sufficient for germination. [9]		

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