

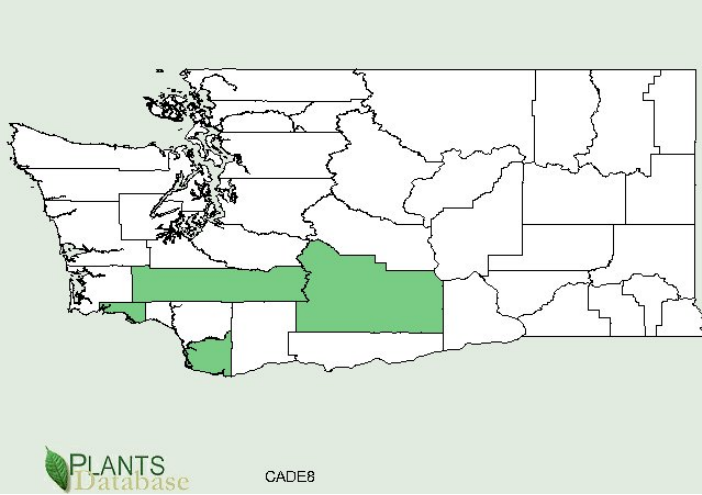


Plant Propagation Protocol for *Carex densa*

ESRM 412 – Native Plant Production

Protocol URL: [https://courses.washington.edu/esrm412/protocols/\[CADE8.pdf\]](https://courses.washington.edu/esrm412/protocols/[CADE8.pdf])

<p align="center">TAXONOMY</p>	 <p align="center">[seven oaks native nursery]</p>
<p>Plant Family</p>	<p>Cyperacea</p>
<p>Scientific Name</p>	<p>Carex Densa</p>
<p>Common Name</p>	<p>Dense Sedge</p>
<p>Species Scientific Name</p>	
<p>Scientific Name</p>	<p>Carex Densa</p>
<p>Varieties</p>	
<p>Sub-species</p>	
<p>Cultivar</p>	
<p>Common Synonym(s)</p>	<p>Carex breviligulata Mackenzie Carex Brongniartii Densa Carex brongniartii Kunth Var.densa L. H. Bailey [zipcodezoo]</p>
<p>Common Name(s)</p>	<p>Dense Sedge</p>
<p>Species Code (as per USDA Plants database)</p>	<p>CADE8 [USDA Plants Database]</p>
<p>GENERAL INFORMATION</p>	

<p>Geographical range</p>	  <p>[USDA Plants Database]</p>
<p>Ecological distribution</p>	<p>Wetlands, meadows, and riparian zones.</p>
<p>Climate and elevation range</p>	<p>60-165 meters in Washington. 0-1500 meters nationally.</p>
<p>Local habitat and abundance</p>	<p>Rare, listed as sensitive in Washington. Associated species <i>Deschampsia cespitosa</i>, <i>Juncus effusus</i>, <i>J. ensifolius</i>, <i>J. tenuis</i>, <i>Carex unilateralis</i> [department of natural resources]</p>
<p>Plant strategy type / successional stage</p>	<p>Flood tolerant, resulting in reduced competition from less flood-tolerant species. Highly fibrous root system resists erosion along hydrologically volatile areas. Clumping growth habit. [department of natural resources]</p>
<p>Plant characteristics</p>	<p>Graminoid, Perennial. Grows as an evergreen grassy tuft Narrow single-veined leaves, occasionally brown spots on leaves. Inflorescence is a panicle containing 10 florets.</p>

	Fruit is an achene. Height: 18-28” Width: 18-28” [seven oaks native nursery]
PROPAGATION DETAILS	
Ecotype	
Propagation Goal	Plants
Propagation Method	Vegetative (crown division) [homeguides]
Product Type	Bareroot [nwplants]
Stock Type	
Time to Grow	
Target Specifications	
Propagule Collection Instructions	Collect propagules in October, as precipitation is still light and the temperature is lower than in the previous months. Collect intact root systems only. If collecting before October, do so before June, as the plant has already flowered and will be able to put all energy into rooting. [nwplants]
Propagule Processing/Propagule Characteristics	
Pre-Planting Propagule Treatments	As the plant is herbaceous, rootstock must be kept cool and moist to avoid desiccation
Growing Area Preparation / Annual Practices for Perennial Crops	Growing area should be very moist, emulating the wetland conditions the plant is adapted to naturally.
Establishment Phase Details	
Length of Establishment Phase	
Active Growth Phase	
Length of Active Growth Phase	
Hardening Phase	
Length of Hardening Phase	
Harvesting, Storage and Shipping	Seedlings should retain as much root mass as possible. Once extracted, must be kept cool and moist. Outplant as soon as possible.
Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites)	When planting, root crown should be even with ground. Flowering will occur in late spring. Plant in moist conditions with good sun exposure. Can be used for bank-stabilization projects or stormwater filtration due to its densely fibrous root system. [nwplants]

Other Comments	Listed as a sensitive plant in Washington, local restrictions on harvesting should be checked before collecting from the field. [USDA plants database]
INFORMATION SOURCES	
References	<p>Thompson, Peter. 2005. Creative Propagation. Timber Press.</p> <p>http://plants.usda.gov/core/profile?symbol=CADE8 (viewed 6/12/2014)</p> <p>http://www.sevenoaksnativenursery.com/native-plants/grasses-rushes-and-sedges/carex-densa/ (viewed 6/12/2014)</p> <p>http://www.nwplants.com/business/catalog/car_den.html (viewed 6/12/2014)</p> <p>http://www1.dnr.wa.gov/nhp/refdesk/fguide/pdf/cade8.pdf (viewed 6/12/2014)</p> <p>http://zipcodezoo.com/Plants/C/Carex_densa/ (viewed 6/12/2014)</p> <p>https://www.inaturalist.org/taxa/dense_sedge (viewed 6/12/2014)</p> <p>http://homeguides.sfgate.com/crown-division-plant-propagation-71413.html (viewed 6/12/2014)</p>
Other Sources Consulted	<p>Krukeberg, Arthur. 1996. Gardening with Native Plants. University of Washington Press.</p> <p>King County Dept of Public Works. 1994. Northwest Native Plants.</p>
Protocol Author	Connor McGarry
Date Protocol Created or Updated	06/12/14

Plant Data Sheet



Species (common name, Latin name)

Dense Sedge, Carex densa

Range

?

Climate, elevation

It is found at elevations between 0 – 1500 ft.

Local occurrence (where, how common)

Rar., Listed as a rare vascular plant in WA

Habitat preferences

Dense sedge prefers open sites with good exposure to sun.

Plant strategy type/successional stage (stress-tolerator, competitor, weedy/colonizer, seral, late successional)

?

Associated species

?

May be collected as: (seed, layered, divisions, etc.)

Bareroot, seed

Collection restrictions or guidelines

Restrictions apply.

Seed germination (needs dormancy breaking?)

?

Seed life (can be stored, short shelf-life, long shelf-life)

?

Recommended seed storage conditions

?

Propagation recommendations (plant seeds, vegetative parts, cuttings, etc.)

The most successful means of propagating this plant are through bare rootstock. The best time to plant out on the Pacific coast is in mid- to late October, before the heavy rains have begun in full but the weather is sufficiently cool that the new plants will not lose a lot of moisture. These plants should be planted such that the crowns are even with the soil.

Soil or medium requirements (inoculum necessary?)

Moist soil.

Installation form (form, potential for successful outcomes, cost)

Bare rootstock, seed.

Recommended planting density

These plants should be planted such that the crowns are even with the soil.

Care requirements after installed (water weekly, water once etc.)

Keep moist at all times

Normal rate of growth or spread; lifespan

?

Sources cited

http://www.nwplants.com/plants/wetlands/cyperaceae/carex_densa/index.html (viewed 06-10-03) *Native Plants of the Northwest website.*

Data compiled by (student name and date)

Roger Whalley 06-10-03