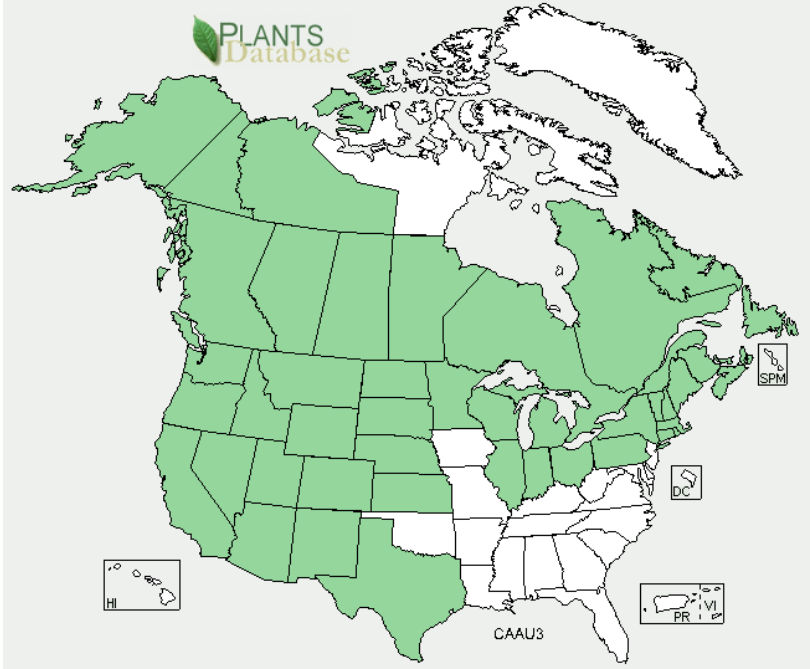
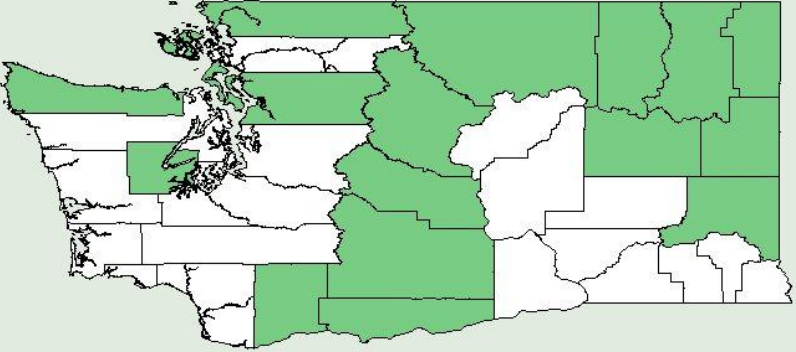


**Plant Propagation Protocol for *Carex aurea***  
 ESRM 412 – Native Plant Production

<b>TAXONOMY</b>	
<b>Family Names</b>	
Family Scientific Name:	<i>Cyperaceae</i>
Family Common Name:	Sedge Family
<b>Scientific Names</b>	
Genus:	<i>Carex</i>
Species:	<i>aurea</i>
Species Authority:	Nutt.
Variety:	N/A
Sub-species:	N/A
Cultivar:	N/A
Authority for Variety/Sub-species:	N/A
Common Synonym(s):	<i>Carex aurea</i> Nutt.
Common Name(s):	Golden sedge, golden-fruited sedge <sup>1</sup>
Species Code:	CAAU3
<b>GENERAL INFORMATION</b>	
Geographical range (distribution maps for North America and Washington state)	<p align="center">Distribution in North America</p>  <p align="center">Distribution in Washington State</p>

	 <p>PLANTS Database CAAU3</p>
Ecological distribution:	Moist to wet fens, bogs, gravel bars, lakeshores and stream banks in all vegetation zones. <sup>2</sup>
Climate and elevation range	Elevation: 250-8200ft. <sup>2</sup> Grows in low to subalpine elevations. <sup>5</sup>  Entire <i>Carex</i> genus can grow in climate zones 5-9. <sup>9</sup>
Local habitat and abundance:	Grows in wet, gravelly sites (gravel bars, lakeshores, stream banks), bogs, fens and seepage meadows. Absent from most of the outer coast. <sup>5</sup>
Plant strategy type / successional stage:	Rhizomatous.
Plant characteristics:	Perennial, tufted herb that grows from long rhizomes. <sup>2</sup>  Distinguishing feature of the <i>Carex</i> genus is that each female flower is enclosed in a sac called the <i>perigynium</i> . <sup>6</sup>  Round, golden <i>perigynia</i> distinguish this sedge from other sedges. <sup>5</sup>
<b>PROPAGATION DETAILS</b>	
Ecotype:	N/A
Propagation Goal:	Plants.
Propagation Method:	Seed or Vegetative.
Product Type:	Propagules.
Stock Type:	
Time to Grow:	N/A
Target Specifications:	1-2ft tall; will spread between 1.5-2ft or more wide. <sup>3</sup>
Propagule Collection:	Can take divisions from existing plants in late spring to early summer, will likely find them in wet, gravelly areas. <sup>3</sup>
Propagule Processing/Propagule Characteristics:	When doing divisions make sure to have more root than shoot, cut away excess foliage, keep the divisions moist and sheltered from environmental factors until established. <sup>4</sup>
Pre-Planting Propagule	If able to get seeds, need to cold stratify before planting. <sup>8</sup>

Treatments:	
Growing Area Preparation / Annual Practices for Perennial Crops:	Pot single rooted shoot divisions in nursery bed. <sup>4</sup>
Establishment Phase (from seeding to germination):	Divide clumps of root and shoot in late spring early summer. <sup>3</sup> Sow short lived seeds in the fall if possible, or in spring. <sup>4</sup>
Length of Establishment Phase:	N/A
Active Growth Phase:	Spring and summer. <sup>8</sup> Blooms late April through August. <sup>7</sup>
Length of Active Growth Phase:	4-6 months.
Hardening Phase	N/A
Length of Hardening Phase:	N/A
Harvesting, Storage and Shipping:	N/A
Length of Storage:	N/A
Guidelines for Outplanting / Performance on Typical Sites:	Plant into average-rich, moist soil that is well drained. <sup>3</sup>
Other Comments:	National Wetland Indicator Status: FACW, OBL. <sup>8</sup>
<b>INFORMATION SOURCES</b>	
References:	<ol style="list-style-type: none"> <li>1. "PLANTS Profile." <i>USDA</i>. Natural Resources Conservation Service. Web. 13 May 2012. &lt;<a href="http://plants.usda.gov/java/nameSearch?keywordquery=Carex+aurea&amp;mode=sciname&amp;submit.x=0&amp;submit.y=0">http://plants.usda.gov/java/nameSearch?keywordquery=Carex+aurea&amp;mode=sciname&amp;submit.x=0&amp;submit.y=0</a>&gt;.</li> <li>2. Author, Date. Page title. In Klinkenberg, Brian. (Editor) 2010. <i>E-Flora BC: Electronic Atlas of the Plants of British Columbia</i> [eflora.bc.ca]. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. [Accessed: 5/14/2012 5:46:17 AM]</li> <li>3. Ellis, Barbara W. <i>Covering Ground: Unexpected Ideas for Landscaping with Colorful, Low-Maintenance Ground Covers</i>. North Adams, MA: Storey Pub, 2007. Print.</li> <li>4. Toogood, Alan R. <i>Plant Propagation</i>. New York: DK Pub, 1999. Print.</li> <li>5. Pojar, Jim, A MacKinnon, and Paul B. Alaback. <i>Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia &amp; Alaska</i>. Redmond, Wash: Lone Pine Pub, 1994. Print.</li> <li>6. Brown, Lauren. <i>Grasses: An Identification Guide</i>. Boston:</li> </ol>

	<p>Houghton Mifflin, 1979. Print.</p> <p>7. Cooke, Sarah S. <i>A Field Guide to the Common Wetland Plants of Western Washington &amp; Northwestern Oregon</i>. Seattle, Wash: Seattle Audubon Society, 1997. Print.</p> <p>8. "Carex Aurea (Golden Sedge) Plant." <i>Www.findthedata.org</i>. 2012. Web. 15 May 2012. &lt;<a href="http://plants.findthedata.org/1/721/Carex-aurea">http://plants.findthedata.org/1/721/Carex-aurea</a>&gt;.</p> <p>9. "Sedge." <i>Plant Encyclopedia</i>. Better Homes and Gardens, 2012. Web. 15 May 2012. &lt;<a href="http://www.bhg.com/gardening/plant-dictionary/perennial/sedge/">http://www.bhg.com/gardening/plant-dictionary/perennial/sedge/</a>&gt;.</p>
Other Sources Consulted:	<p>Hartmann, Hudson T, and Hudson T. Hartmann. <i>Plant Propagation: Principles and Practices</i>. Upper Saddle River, N.J: Prentice Hall, 2002. Print.</p> <p>Leigh, Michael. <i>Grow Your Own Native Landscape: A Guide to Identifying, Propagating &amp; Landscaping with Western Washington Native Plants</i>. Olympia, Wash: Native Plant Salvage Project, Washington State University Cooperative Extension, Thurston County, 1999. Print.</p> <p>Darke, Rick, and Mark Griffiths. <i>Manual of Grasses</i>. Portland, Or: Timber Press, 1994. Print.</p> <p>Kozloff, Eugene N. <i>Plants of Western Oregon, Washington &amp; British Columbia</i>. Portland, Or: Timber Press, 2005. Print.</p> <p>"Carex Aurea." <i>Flora of North America</i>. Efloras.org. Web. 14 May 2012. &lt;<a href="http://www.efloras.org/florataxon.aspx?flora_id=1">http://www.efloras.org/florataxon.aspx?flora_id=1</a>&gt;.</p>
Protocol Author:	Noel Daniel
Date Protocol Created or Updated:	05/16/12

Note: This template was modified by J.D. Bakker from that available at: <http://www.nativeplantnetwork.org/network/SampleBlankForm.asp>