

<b>NAME OF SPECIES:</b> <i>Artemisia absinthium</i> L.	
<b>Synonyms:</b> <i>Artemisia absinthium</i> var. <i>absinthium</i> L.; <i>Artemisia absinthium</i> var. <i>insipida</i> Stechmann (2)	
<b>Common Name:</b> absintium, absinth sage, absinth wormwood, absinth sagewort, common sagewort	<b>Cultivars?</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
<b>A. CURRENT STATUS AND DISTRIBUTION</b>	
I. In Wisconsin?	1. YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
	2. <u>Abundance:</u> low
	3. <u>Geographic Range:</u> Scattered throughout WI, but mostly in NE (4).
	4. <u>Habitat Invaded:</u> forested floodplain next to trail, upland RR rights-of-way, margin of old mines, gravel pits, sides of trail, sandy riverside meadow (4). Disturbed Areas <input checked="" type="checkbox"/> Undisturbed Areas <input type="checkbox"/>
	5. <u>Historical Status and Rate of Spread in Wisconsin:</u> First reported in WI in 1889 in Door County. Total of 60 reports for WI – 27 Counties (4).
	6. <u>Proportion of potential range occupied:</u> low
II. Invasive in Similar Climate Zones	1. YES <input type="checkbox"/> NO <input type="checkbox"/> <u>Where (include trends):</u> As far north as Hudson's Bay, found in Midwest and Great Plains (5).
III. Invasive in Which Habitat Types	1. Upland <input checked="" type="checkbox"/> Wetland <input checked="" type="checkbox"/> Dune <input type="checkbox"/> Prairie <input checked="" type="checkbox"/> Aquatic <input type="checkbox"/> Forest <input type="checkbox"/> Grassland <input checked="" type="checkbox"/> Bog <input type="checkbox"/> Fen <input type="checkbox"/> Swamp <input type="checkbox"/> Marsh <input type="checkbox"/> Lake <input type="checkbox"/> Stream <input type="checkbox"/> Other: Primarily grows on disturbed sites within grasslands, pastures, perennial crops, and on land abandoned from cultivation – grows best in moist habitats(3).
IV. Habitat Affected	1. <u>Soil types favored or tolerated:</u> Grows on a variety of soils from gravels to clay loams (3).
	2. <u>Conservation significance of threatened habitats:</u> Absinth sage can create a problem in native grasslands, pastures, and fields by outcompeting grasses and other desirable plants. It generally presents a problem in highly disturbed areas, such as old pastures, and is not considered a threat to well-established prairies (5).
V. Native Range and Habitat	1. <u>List countries and native habitat types:</u> Eurasia, the Middle East, and North Africa (5). Dry, rocky waste places (6).
VI. Legal Classification	1. <u>Listed by government entities?</u> CO: B list (noxious weeds); ND: noxious weed; WA: Class C noxious weed (1)
	2. <u>Illegal to sell?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes:
<b>B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS</b>	
I. Life History	1. <u>Type of plant:</u> Annual <input type="checkbox"/> Biennial <input type="checkbox"/> Monocarpic Perennial <input type="checkbox"/> Herbaceous Perennial <input checked="" type="checkbox"/> Vine <input type="checkbox"/> Shrub <input type="checkbox"/> Tree <input type="checkbox"/>
	2. <u>Time to Maturity:</u> 1-2 yrs: rosettes form by end of first growing season. Flower stalks are produced by mid-July; flowers July through September (3).
	3. <u>Length of Seed Viability:</u> 3-4 years, viable seeds have been found in the soil of undisturbed prairie grasslands in North Dakota (3).
	4. <u>Methods of Reproduction:</u> Asexual <input type="checkbox"/> Sexual <input checked="" type="checkbox"/> <u>Notes:</u> Is a prolific seed producer (3). Can be propagated by

	dividing the roots or from semi-hardwood cuttings (6).
	5. <u>Hybridization potential</u> :
II. Climate	1. <u>Climate restrictions</u> : USDA Zones 4-9 (6); Short lived in humid climates. May deteriorate and rot out in center during rainy, humid summers (6)
	2. <u>Effects of potential climate change</u> :
III. Dispersal Potential	1. <u>Pathways - Please check all that apply</u> :  <u>Unintentional</u> : Bird <input type="checkbox"/> Animal <input checked="" type="checkbox"/> Vehicles/Human <input type="checkbox"/> Wind <input checked="" type="checkbox"/> Water <input checked="" type="checkbox"/> Other: In hay (3)  <u>Intentional</u> : Ornamental <input checked="" type="checkbox"/> Forage/Erosion control <input type="checkbox"/> Medicine/Food: Other: rock gardens, borders (6); Seeds and plants often sold and planting in gardens (7).
	2. <u>Distinguishing characteristics that aid in its survival and/or inhibit its control</u> : Seeds are small and easily scattered (7)
IV. Ability to go Undetected	1. HIGH <input type="checkbox"/> MEDIUM <input checked="" type="checkbox"/> LOW <input type="checkbox"/>
<b>C. DAMAGE POTENTIAL</b>	
I. Competitive Ability	1. <u>Presence of Natural Enemies</u> :
	2. <u>Competition with native species</u> : Medium/Low significance – Allelopathic; prevents germination of some species, but in general studies of its effect on the germination of other plants are inconclusive (7).
	2. <u>Rate of Spread</u> : - changes in relative dominance over time: - change in acreage over time: HIGH (1-3 yrs) <input type="checkbox"/> MEDIUM (4-6 yrs) <input type="checkbox"/> LOW (7-10 yrs) <input checked="" type="checkbox"/> Notes:
II. Environmental Effects	1. <u>Alteration of ecosystem/community composition?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes: Low significance – Easily becomes established in disturbed areas and may restrict establishment of native species in recovering prairies (7).
	2. <u>Alteration of ecosystem/community structure?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes: Low significance – Colonizes open, disturbed sites and so may create an herbaceous layer more quickly following disturbance than if only native plants were establishing in a recovering area (7).
	3. <u>Alteration of ecosystem/community functions and processes?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes: Insignificant (7)

	<p>4. Allelopathic properties? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p> <p>Notes: contains the sesquiterpene lactone absinthin, can be toxic to other plants in its vicinity (3). Volatile emanations from the leaves completely prevented germination in wheat (<i>Triticum tritcale</i>), and inhibited seedling growth in wheat, hoary cress (<i>Cardaria draba</i>), and common flax (<i>Linum usitatissimums</i>), whereas seedling growth on white mustard (<i>Sinapis alba</i>) was markedly stimulated.</p>
<b>D. SOCIO-ECONOMIC EFFECTS</b>	
I. Positive aspects of the species to the economy/society:	<p>Notes: Fair nutritional value for energy and protein; unpalatable to cattle – taints milk, horses, and listed as good for sheep; used medicinally (3). <i>A. absinthium</i> is the plant from which the psychedelic drink, absinthe, is made (6).</p> <p>Based on the 2011 WNA Economic Impact Survey, the following information was reported for this plant. Out of the 204 nurseries responding, 10 reported selling this plant. 9 reported it comprised &lt;1% of their gross plant sales. 1 reported it comprised 1 – 2.9% of their gross plant sales. The estimated total dollar amount contributed to Wisconsin's economy by this plant is \$26,253. It ranks 32nd among the 63 taxa. The estimated wholesale value of plants in production is \$7,250. The majority of respondents said it took &lt;6 months to produce this plant. The trend for the 2011 season was to remain unchanged (8).</p>
II. Potential Socio-Economic Effects of Requiring Controls:	<p>Positive:</p> <p>Negative:</p>
III. Direct and indirect Socio-Economic Effects of Plant :	Notes:
IV. Increased Costs to Sectors Caused by the Plant:	Notes:
V. Effects on human health:	Notes: Used medicinally (3). Any part of the plant is very toxic (6).
VI. Potential socio-economic effects of restricting use:	<p>Positive:</p> <p>Negative: Nurseries/online distributors of seeds/seedlings would have to deplete stock.</p>
<b>E. CONTROL AND PREVENTION</b>	
I. Costs of Prevention (please be as specific as possible):	Notes:
II. Responsiveness to prevention efforts:	Notes:
III. Effective Control tactics: (provide only basic info)	<p>Mechanical <input type="checkbox"/> Biological <input type="checkbox"/> Chemical <input checked="" type="checkbox"/></p> <p>Times and uses: It is easily controlled by herbicides and/or vigorous competition from grasses. Picloram provides the most rapid and complete control of absinth wormwood, but dicamba, 2, 4-D, and glyphosate are also effective (3).</p>
IV. Costs of Control:	Notes: Cost of herbicide and labor for spraying/pulling
V. Cost of prevention or control vs. Cost of allowing invasion to occur:	Notes:

VI. Non-Target Effects of Control:	Notes:
VII. Efficacy of monitoring:	Notes: Monitoring is not considered necessary as the problem patches of <i>A. absinthium</i> are relatively small and highly localized, and abundance seems to be stable or decreasing (7)
VIII. Legal and landowner issues:	Notes:

**F. HYBRIDS AND CULTIVARS AND VARIETIES**

I. Known hybrids?  YES <input type="checkbox"/> NO <input type="checkbox"/>	Name of hybrid:
	Names of hybrid cultivars: <i>Artemisia</i> X 'Powis Castle' [ <i>A. absinthium</i> x <i>A. arborescens</i> ] (6)
II. Species cultivars and varieties	Names of cultivars, varieties and any information about the invasive behaviors of each:  'Lambrook Silver' (6)  Of ten nursery survey respondents growing the plant, three provided cultivar information. Two are growing Silver Mound and one each are growing Limelight, Lambrook Mist, and Lambrook Silver. None reported on invasiveness of <i>A. wormwort</i> . (8)
	Notes:

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**G. REFERENCES USED:**

- UW Herbarium (Madison or Stevens Point)
- WI DNR
- Bugwood (Element Stewardship Abstracts)
- Native Plant Conservation Alliance
- IPANE
- USDA Plants

Number	Reference
1	USDA, NRCS. 2011. The PLANTS Database ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> , 13 December 2011). National Plant Data Team, Greensboro, NC 27401-4901 USA.
2	Retrieved [12/13/2011], from the Integrated Taxonomic Information System on-line database <a href="http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&amp;search_value=35445">http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&amp;search_value=35445</a>
3	Carey, Jennifer H. 1994. <i>Artemisia absinthium</i> . In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <a href="http://www.fs.fed.us/database/feis/">http://www.fs.fed.us/database/feis/</a> [2011, December 13].
4	Robert W. Freckmann Herbarium, University of Wisconsin-Stevens Point. Wisconsin Plants web site ( <a href="http://wisplants.uwsp.edu">http://wisplants.uwsp.edu</a> )
5	Evans, J.E.; and N. Eckardt, Global Invasive Species Team, The Nature Conservancy. <a href="http://wiki.bugwood.org/Artemisia_absinthium">http://wiki.bugwood.org/Artemisia_absinthium</a>
6	FloriData. Tallahassee, Florida, USA. <a href="http://www.floridata.com/ref/a/arte_abs.cfm">http://www.floridata.com/ref/a/arte_abs.cfm</a>
7	NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <a href="http://www.natureserve.org/explorer">http://www.natureserve.org/explorer</a> . (Accessed: December 13, 2011).
8	Wiegrefe, Susan. 2011. Wisconsin Nursery Association Survey of the Economic impact of potentially invasive species in Wisconsin

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**Reviewer(s) and date reviewed:** Tom Boos, 12/16/11

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