

Plant Propagation Protocol for [*Agrostis canina*]
 ESRM 412 – Native Plant Production



TAXONOMY	
Plant Family	
Scientific Name	Poaceae/Gramineae
Common Name	Grass family
Species Scientific Name	
Scientific Name	Genus: <i>Agrostis</i> L. Species: <i>Agrostis canina</i> L. Species Authority: Nash
Varieties	N/A
Sub-species	N/A
Cultivar	Golfstar
Common Synonym(s)	<i>Agrostis canina</i> <i>Agrostis canina</i> f. <i>fasciculata</i> <i>Agrostis canina</i> f. <i>varians</i>
Common Name(s)	dog bentgrass
Species Code (as per USDA Plants database)	AGCA4
GENERAL INFORMATION	
Geographical range	USDA
Ecological distribution	Typically found in wet, nutrient poor soils including fields, lawns, and roadsides (Native Plant Trust).
Climate and elevation range	Alpine or subalpine zones, various elevation ranges. Temperature range is 55 to 65 degrees fahrenheit for

	ideal growth. Ideal environments include cool, humid conditions (Duble).
Local habitat and abundance	Local habitats include a large number of man-made areas such as lawns and roadsides in addition to meadows. Ideal soil ph is 5.5-6.5 (GCGS).
Plant strategy type / successional stage	Stress tolerator due to ability to inhabit less than ideal environmental conditions such as those sometimes observed in man-made environments. Also can act as a competitor to other grasses in the area.
Plant characteristics	Leaf blades of 1-3mm. Two or more years of lifespan depending on conditions and health of the root system, plants are perennial (Duble).
PROPAGATION DETAILS	
Ecotype	Cool, humid environment, species is so widespread that no single ecotype is detailed on propagation instruction resources.
Propagation Goal	Cuttings; can be from any part of grass as long as nodes are included, this is seen in the joint along the stem of the grass.
Propagation Method	Vegetative
Product Type	Cuttings should be placed in plug containers
Stock Type	No information
Time to Grow	6-10 days
Target Specifications	Height of 30 inches, leaf blades 2-15 cm. Hardiness level strong enough to encourage survival at outplanting sites.
Propagule Collection Instructions	Ideally cuttings should be collected in early fall/late summer so that a period of growth can exist before winter months and before the major temperature fluctuation of the summer months (Nordick).
Propagule Processing/Propagule Characteristics	1-1.5 pounds per 1000 square feet of surface, should be noted that this density was obtained from a resource that was indicative of grass species in general in addition to prioritizing the visual component of the outplanting site (Nordick).
Pre-Planting Propagule Treatments	No Information specific to this species
Growing Area Preparation / Annual Practices for Perennial Crops	Frequent fertilizer is useful in addition to a sand media, cuttings should be planted about 4 inches apart
Establishment Phase Details	Cuttings must remain moist and well rooted with soil (Jayhole)
Length of Establishment Phase	7-15 days
Active Growth Phase	Mow to desired length, full length can be reached in 3 months (Oakley).
Length of Active Growth Phase	Three months
Hardening Phase	No information

Length of Hardening Phase	2-4 weeks depending upon average temperature of the environment, period is longer when conditions fluctuate more dramatically.
Harvesting, Storage and Shipping	No information specific to species, but in general
Length of Storage	Store seeds in a dry, dark, and cool place where temperature never drops below freezing.
Guidelines for Outplanting / Performance on Typical Sites	No Information
Other Comments	None

INFORMATION SOURCES

References	<ol style="list-style-type: none"> 1. “ Using Elemental Sulfur to Optimize/Lower Soil PH of Bentgrass Putting Greens.” <i>Grand Challenges Great Solutions</i>, 2014, scisoc.confex.com/crops/2014am/webprogram/Paper86851.html. 2. “Agrostis Canina L.” <i>Native Plant Trust: Go Botany</i>, gobotany.nativeplanttrust.org/species/agrostis/canina/. 3. “Agrostis Canina.” <i>USDA</i>, plants.usda.gov/home/plantProfile?symbol=AGCA4. 4. “Agrostis Capillaris (Common Bentgrass).” <i>Invasive Species Compendium</i>, CABI, www.cabi.org/isc/datasheet/3830. 5. Dolan, R W. “Agrostis Canina.” <i>IPA: Indiana Plant Atlas</i>, Butler University , www.indiana.plantatlas.usf.edu/plant.aspx?id=72. 6. Duple, Richard. “Bentgrass.” <i>Aggie Horticulture</i> , Texas A&M University , aggie-horticulture.tamu.edu/plantanswers/turf/publications/Bent.html. 7. Jayhole . “In the Midst of Summer with 100 Degrees Fahrenheit + .” <i>Turfgrass and Landscape Research and Extension</i>, Kansas State University , 18 July 2019, blogs.k-state.edu/turf/tag/bentgrass/. 8. Nordick, Brian. <i>Propagation of Bentgrass</i>, NDSU, www.ndsu.edu/pubweb/chiwonlee/plsc368/student/papers04/briannordick/bentgrass.htm.
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	9. Oakley, R. A. "Vegetative Planting of Bentgrasses: A Historical Sketch." <i>Bulletin of the Green Section</i> , 4th ed., vol. 3, pp. 114–121.
Other Sources Consulted	1. Doty, Lewis. "Plant Strategies ." <i>Ecology Center</i> , 14 May 2021, www.ecologycenter.us/rain-forests/plant-strategies.html .
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