

BLUEJOINT REEDGRASS

Calamagrostis canadensis
(Michx.) Beaux
Plant Symbol = CACA4

Contributed by: USDA, NRCS, Manhattan, Kansas
Plant Materials Center.



Robert H. Mohlenbrock. USDA SCS. 1989. Midwest
Wetland Flora : Field office illustrated guide to plant
species.

Alternate Names

Bluejoint or Macoun's Reedgrass

Uses

Calamagrostis canadensis is a wetland species that
has forage value for deer, bison, and cattle. It

produces good quality hay when harvested prior to
heading. It also has value as a food for waterfowl.

Status

Please consult the PLANTS Web site and your State
Department of Natural Resources for this plant's
current status (e.g. threatened or endangered species,
state noxious status, and wetland indicator values).

Description and Adaptation

Bluejoint is a tall, erect, cool season, perennial grass
that is found in wet meadows and prairies. The
creeping rhizomes and root stocks of this species
result in natural stands that have a hummocky,
uneven appearance. The erect stems are slender,
unbranched and can be 3 to 5 feet tall. The blue-green
leaves are elongated and very narrow, and feel rough
to the touch. The inflorescence is an open panicle
with a single caryopsis in each spikelet. The plant
flowers from June to August. Bluejoint survives best
in moist to saturated soils, but not soils inundated by
water. Mature bluejoint stands will tolerate a thick
build up of litter and mulch. This species occurs in
highly organic peat and clay soils, but prefers a silt
loam type soil. This species is adapted to a variety of
temperature and precipitation regimes. It is well
adapted to cold temperatures and is extremely winter
hardy. It has a wide pH tolerance from acidic to more
alkaline soils (pH 5 to 8).

Establishment

Seed is more commonly used for revegetation
projects than vegetative materials. Seed production is
variable among ecotypes and low production results
in high seed costs. Seed yields of 20 to 50 pounds per
acre can be expected if grown on agriculture
experiment stations or by commercial producers.
Bluejoint seed size is relatively small with 3.5 to 4.0
million seeds per pound. Seeds of bluejoint don't
appear to have complicated germination
requirements. Research indicated that this species had
no dormancy or after ripening requirements and
germination was not improved by stratification,
scarification, or light treatments. However, small
seed size generally results in poor seedling vigor,
thus requiring very shallow seeding and effective
weed control measures during establishment.

Management

Multiple harvests of bluejoint can create stand losses.
Fertilized stands of bluejoint can produce 1 to 2 tons
of forage per acre. Fertilized stands produce crude

leaf protein of 12 to 20 percent dry weight during a mid June harvest. Unfertilized stands were found to have marginal calcium and magnesium content and overall forage digestibility was reduced.

Pests and Potential Problems

A nematode, *Subanguina calamagrostis*, invades the leaf tissue of the grass and forms galls that cause the leaves to become twisted and contorted. A fungus, *Dilophospora alopecui*, also invades the leaf tissue of the grass due to entry wounds caused by the nematode. It has also been reported that an insect invades the leaf sheath of the flag leaf and severs the culm at the base of the inflorescence, thus interfering with seed production. Heavy grazing and trampling by cattle causes breakage of grass rhizomes and adds to soil compaction in wet meadows. Heavy grazing reduces stands of bluejoint which allows invasion by other wetland grasses, sedges, reeds, rushes and smartweed.

Cultivars, Improved, and Selected Materials (and area of origin)

'Sourdough' bluejoint reedgrass is a cultivar developed by the Alaska Experiment Station for revegetation uses. Thirty six collections from the interior, western and south central Alaska were combined into a synthetic population to produce 'Sourdough'. The cultivar tolerates severe cold and wind under arctic and alpine conditions. Breeder and foundation seed classes are maintained by the Alaska Plant Materials Center.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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Weediness

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use. Weed information is also available from the PLANTS Web site at plants.usda.gov. Please consult the Related Web Sites on the Plant Profile for this species for further information. Bluejoint reedgrass often forms dense stands following disturbances such as burning or clear cutting timber. These dense stands of grass can inhibit white pine (*Picea glauca*) seedling establishment, thus bluejoint is considered a serious weed problem in white spruce plantations. It is a common weed in pasture situations and in reduced tillage agriculture fields in Alaska.

Control

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective. Research on control of bluejoint has focused on intensive clipping or use of herbicides. Researchers indicated that two or more cuts per year or intensive grazing could keep the grass under control. Reports of herbicide use such as glyphosate and hexazinone can provide moderate to excellent control of this species.