

Establishment for Seed Production

Rye is easily cross-pollinated. Production of certified seed requires planting of foundation or registered seed. Production procedures must meet minimum certification standards. Seed treatment is recommended. Plant 1" deep in narrow row spacing using a grain drill, followed by packer wheels or cultipacking. Seeding dates are August 15 to September 10 for Maine. Adjust dates for warmer areas. Seed 1-2 bushels per acre (56-112 lbs. per acre). Soil tests will indicate the need for fertilizer.

Availability

For names of commercial nurseries that sell 'Aroostook' rye or for more information on the availability, contact your local NRCS office or Soil and Water Conservation District office.

For More Information

Visit our Plant Materials Internet site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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'Aroostook' rye



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An improved
conservation
plant developed by
the Big Flats Plant
Materials Center,
Corning, NY



'Aroostook' rye

'Aroostook' rye (*Secale cereale*), was selected for use as a cover crop plant for northern Maine and other short season areas. 'Aroostook' rye was developed specifically for seeding after late harvested crops to protect intensively cropped fields from erosion and to sequester residual nitrate from crop production. The winter hardiness, early spring recovery, and vigor also exceed that of other varieties.

There are some reports of crop yield reductions when crop seed is planted immediately following rye cover crop destruction. When crops are planted 2 weeks after spraying/plowing of the rye cover, the effect is insignificant.

Rye covers are effective at uptaking excess nitrate in the fall. This nitrogen is released from decomposing rye during the following spring and summer.

The USDA, Natural Resources Conservation Service, New York State College of Agriculture and Life Sciences; Cornell University; and Maine Department of Agriculture, Division of Plant Industry, cooperated in the release of 'Aroostook.'



Description

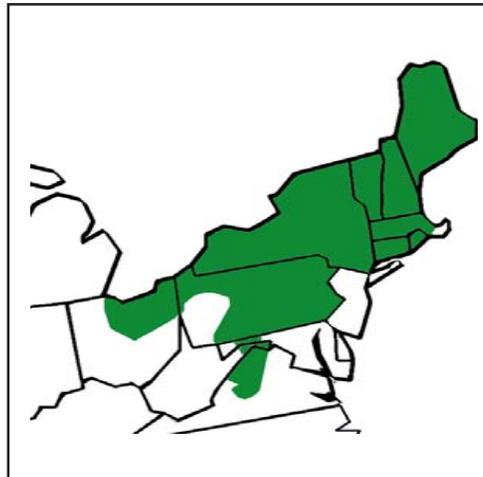
'Aroostook' rye is fairly tall growing, averaging 67 cm. It has narrow, dark leaves and has slightly curved heads at maturity. The medium sized seed is about 2.5 mm wide by 7.5 mm long. The stem is about 4 mm in diameter, at about 10 cm above ground level.

Adaptation

Rye can be grown in a wider range of environmental conditions than any other small grain. Rye is more winter hardy than either wheat or barley, has a shorter germination period under low temperatures, and grows more quickly. It can be planted later in the fall and also in areas having short, cool falls and severe winters. Its spring growth is also more rapid and it matures in early summer.

The main use of 'Aroostook' rye is as a cover crop after later harvested crops. In Maine, it produces sufficient fall growth to provide some soil protection over winter when 26 to 35 growing degree days (base 40° F) remain after seeding.

Area of Adaptation for 'Aroostook'



Establishment for Cover Crops

'Aroostook' rye makes a good cover crop for protecting soil from wind and water erosion. In some situations, it may also reduce leaching of plant nutrients from the soil. There are three recommended seeding methods: best results occur when planted 1" deep, using a conventional grain drill, followed by cultipacking. Other seeding methods are to broadcast seed followed immediately with shallow discing and cultipacking and aerial seeding into standing corn in August. Seeding dates are August/September for northern Maine; as late as October or November for warmer areas. Seeding rate is a minimum of two bushels/acre (100-112 lbs. per acre). Late plantings use two bushels/acre. When used as a cover/green manure crop, plow under to kill when spring growth is between 8-12" tall. The performance of 'Aroostook' rye can only be assured by using genetically pure and high quality seed. Use certified seed.