

## DANKO WINTER RYE

Danko is a winter rye (*Secale cereale* L.) cultivar with higher yield, better lodging resistance and winter survival and higher kernel weight and test weight than Animo and Kustro, the current most commonly grown cultivars in the Maritimes. It was developed at the Polish Plant Breeding Institute, Poznan, Poland where breeder seed will be maintained. Seed will be distributed by King Grain Ltd.

Key words: *Secale cereale* L., rye (winter), cultivar description

[Seigle d'hiver Danko.]

Titre abrégé: Seigle d'hiver Danko.

Le seigle d'hiver Danko (*Secale cereale* L.) est d'un rendement supérieur, résiste mieux à la verse et aux rigueurs de l'hiver, donne un grain plus lourd et a un poids spécifique plus élevé que les cultivars Animo et Kustro, actuellement les plus cultivés dans les Maritimes. On l'a mis au point à l'Institut de sélection végétale Poznań (Pologne) où l'on conserve des semences de reproduction. La King Grain Ltd. assurera la distribution des semences.

Mots clés: *Secale cereale* L., seigle (d'hiver), description du cultivar

Danko, a high-yielding cultivar of winter rye (*Secale cereale* L.) was developed at the Polish Plant Breeding Institute, Poznan, Poland and tested as Dankowskie Nowe or Nowe. The major use of Danko will be as a feed grain. License No. 2548 was issued for Danko on 21 June 1985 by the Plant Health and Plant Products Division of the Food Production and Inspection Branch of Agriculture Canada.

### Pedigree and Breeding Methods

The cultivar Danko originated as a selection out of Dankowskie Zlote for a shorter stem and improved lodging resistance. Dankowskie Zlote originated from the cross Dankowskie Selekcyjne × Petkus Normalstroh. The breeding method involved the selection of single plants, crossing these in pairs, yield testing the progeny and repeating this procedure for three additional generations. The breeder seed is composed of the progeny of the fourth generation of pair-crossing of selected single plants.

### Performance and Adaptation

In the Maritime Winter Rye Test in 1980–1981 and 1983, Danko winter rye out-

yielded the recommended cultivars Animo and Kustro by 9.6 and 10.7%, respectively (Table 1). Danko outyielded Animo and Kustro at Nappan by 19.3 and 10.4%, at Charlottetown by 13.8 and 14.0%, at Kentville by 4.2 and 5.8%, respectively, and Animo at Truro by 7.7% and Kustro at Fredericton by 32.7%. In addition to its high-yielding potential, Danko has better lodging resistance, 1000-kernel weight, test weight and winter survival than Animo and Kustro. Danko is shorter than Animo and taller than Kustro. Its reaction to leaf rust (*Puccinia recondita* Rob. ex Desn. f. sp. *tritici*), powdery mildew (*Erysiphe graminis* DC ex Merat f. sp. *tritici*), speckled leaf blotch (*Septoria secalis*), ergot (*Claviceps purpurea*) and snow mold (*Gerlachia nivalis* (Ges. ex Sacc.) W. Gans and E. Muller) is similar to Animo and Kustro, although only snow mold is a significant problem in some years in the Maritime Region.

### Description

SPIKE. Awned; medium long, dense ear, glaucous; grain visible in short glumes after heading; awns slightly covered with anthocyanin.

Table 1. Comparative yield and agronomic data for Danko, Animo and Kustro winter rye (Maritime Co-operative Winter Rye Trials 1980-1981, 1983)†

Cultivar	Yield (kg ha <sup>-1</sup> ) (12)‡	Straw length (cm) (11)	Lodging resistance (1-9)§ (8)	Test wt. (kg hL <sup>-1</sup> ) (11)	1000- kernel wt. (g) (11)	Winter survival (%) (7)	Maturity (d after 31 May)
Animo	4710	157	4.7	68.2	27.4	89	78
Kustro	4650	151	4.4	69.4	27.3	91	78
Danko	5210	155	4.3	69.6	29.7	95	77

†Charlottetown, Kentville, Nappan, Truro, Fredericton.

‡Number of tests.

§ 1 = erect; 9 = completely lodged.

**KERNEL.** Medium long to long, larger than Kustro and Animo; blue green; substantially heavier than Kustro and Animo.

**STRAW.** Medium height, shorter than Animo and longer than Kustro (Table 1).

**LEAF.** Medium width and length.

**LODGING RESISTANCE.** Slightly better than Animo and Kustro.

**MATURITY.** Slightly earlier than Animo and Kustro.

**WINTER HARDINESS.** Good, superior to Animo and Kustro.

**RESISTANCE TO SHATTERING.** Fair to good.

**DISEASE REACTION.** Susceptible to ergot, mildew, leaf rust and snow mold.

**AREA OF ADAPTATION.** Danko is suitable for production in the winter cereal areas of Eastern Canada, especially in the Atlantic Provinces.

**USE.** Suitable for baking and livestock feed.

### Seed Distribution

Breeder seed will be maintained by the Polish Plant Breeding Institute, Pozan, Poland. The Canadian distributor will be King Grain, Chatham, Ontario. Prebasic seed was obtained from Poland in 1984 by King Grain and certified seed will be available for commercial use in 1986.

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