Registration of Germplasms

REGISTRATION OF KS108GH5 GLANDULAR-HAIRED ALFALFA GERMPLASM WITH MULTIPLE PEST RESISTANCE

KS108GH5 alfalfa germplasm Reg. no. GP-190 was released by the USDA-ARS, and the Kansas Agricultural Experiment Station in February 1985. It is resistant to the blue alfalfa aphid (Acyrthosiphon kondoi Shinji), pea aphid [Acyrthosiphon pisum (Harris)], spotted alfalfa aphid [Theroaphis maculata (Buckton)], potato leafhopper, Empoasca fabae (Harris), anthracnose (caused by Colletotrichum trifolii Bain), and downy mildew (caused by Peronospora trifoliorum B. By).

KS108GH5 was derived from the original seed of PI346919, a plant introduction from Russia. It was labeled Medicago glutinosa. Later, Gunn et al. (1) identified it as a mixture of the following Medicago sativa L. subspecies: sativa, praefalcata, glornerata, and X varia. The population was characterized by erect glandular hairs on the seed pods and eglandular vegetative organs. We conducted five cycles of recurrent phenotypic selection for erect glandular hairs on the seed pods and eglandular vegetative organs. The population was characterized by erect glandular hairs on the seed pods and eglandular vegetative organs. We conducted five cycles of recurrent phenotypic selection for erect glandular hairs on the seed pods and eglandular vegetative organs. The strain was also selected for tryptamine-free alfalfa. The population was characterized by erect glandular hairs on the seed pods and eglandular vegetative organs. We conducted five cycles of recurrent phenotypic selection for erect glandular hairs on the seed pods and eglandular vegetative organs. The strain was also selected for tryptamine-free alfalfa.

Percentages of resistance to aphid biotypes in Kansas were: spotted alfalfa aphid—KS108GH5 = 89, 'Kanza' (resistant control) = 80, 'Ranger' (susceptible control) = 10; blue alfalfa aphid—KS108GH5 = 43, 'CUF 101' (resistant control) = 47, 'Buffalo' (susceptible control) = 0; pea aphid—KS108GH5 = 69, Kanza (resistant control) = 56, Ranger (susceptible control) = 0.

The KS108GH5 germplasm has no resistance to the potato leafhopper. However, hair density of 5 per mm² on the stem is enough to prevent damage by leafhoppers in the field or in growth chambers, while those without hairs were severely damaged.

Two grams of KS108GH5 seed are available to applicants upon written request and agreement to acknowledge this germplasm as a matter of open record. This germplasm contributes to the development of a new cultivar or hybrid.

Seed stocks of KS108GH5 syn 2 are maintained by the USDA-ARS, and the Kansas Agricultural Experiment Station in Manhattan, KS 66506.

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References and Notes


REGISTRATION OF S-8799 and S-8986 SEED-RETAINING REED CANARYGRASS GERMPLASMS

S-8799 (Phalaris arundinacea L.) (Reg. no. 31) was developed from open-pollinated seed of a single panicle of common reed canarygrass with good seed retention. Selection for seed yield and seed retention was carried out for nine generations from 1951 to 1974 using isolated plots of spaced plants. The strain was also selected for tryptamine-free alfalfa. The population was characterized by erect glandular hairs on the seed pods and eglandular vegetative organs. We conducted five cycles of recurrent phenotypic selection for erect glandular hairs on the seed pods and eglandular vegetative organs. The strain was also selected for tryptamine-free alfalfa.

The KS108GH5 germplasm has no resistance to the potato leafhopper. However, hair density of 5 per mm² on the stem is enough to prevent damage by leafhoppers in the field or in growth chambers, while those without hairs were severely damaged.

Two grams of KS108GH5 seed are available to applicants upon written request and agreement to acknowledge this germplasm as a matter of open record. This germplasm contributes to the development of a new cultivar or hybrid.

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