REGISTRATION OF GERMPLASMS

REGISTRATION OF NUGAINES WHEAT
(Reg. No. 542)

O. A. Vogel and C. J. Peterson, Jr.


Nugaines (a sib of ‘Gaines’) was selected from the cross CI 19253/CI 12692/‘Burt.’ Nugaines was referred to as Selection 7 and WA 3739. It has a bearded, lax spike with long, midwide, white glumes. The kernels are white, soft, and midlong with a shallow crease.

Winterhardiness of Nugaines is equal to that of Gaines, but it is less hardy than the hard red winter wheats ‘McCall’ and ‘Wanser.’ It is shatter-resistant and fairly easy to thresh. Nugaines has equalled or exceeded the yields of ‘Gaines’ over a 5-year period of testing in Washington. The test weight of Nugaines exceeds that of Gaines.

Nugaines has more adult plant resistance to stripe rust than Gaines but is equally susceptible in the seedling stage. Nugaines is susceptible to Cercospora foot rot, Fusarium foot rot, stem rust, and snow mold. It has moderate resistance to flag, and stinking smut. Nugaines is susceptible to races of dwarf bunt. It has slightly less postharvest than ‘Kharkof’ under Pullman condition and a crown depth of 20 ± 5 mm.

Nugaines has better milling characteristics. Baking tests have shown that Nugaines flour is suitable for pastries, cookies, and soft white wheat products. Nugaines is adapted to the wheat-growing areas of Northern Idaho, Eastern Oregon, and Eastern Washington. K. J. Morrison, and C. J. Peterson, Jr., 1966. Published with the approval of the Director of the North Dakota Agricultural Experiment Station and released by the U.S. Department of Agriculture, Pullman, WA 99163. Received April 26, 1974.

a Registered by the Crop Science Society of America. Published with the approval of the Purdue University Agricultural Experiment Center, Pullman, WA 99163. Information Paper, 1974. 2 Former Research Agronomist and Researcher respectively, ARS, USDA, Pullman, WA 99163.

Registration of Germplasms

REGISTRATION OF INDIANA SYN. C
ALFALFA GERMPLASM
(Reg. No. GP 43)

T. E. Thompson, J. D. Axtell, R. E. Shade, and R. D. Meeks

‘INDIANA SYN. C alfalfa (Medicago sativa L.) was developed by the Purdue University Agricultural Experiment Station. This synthetic was officially released as germplasm to alfalfa breeders in June 1973.

Indiana Syn. C is a six-clone synthetic with two clones each originating from germplasm pools MSA-W4 and MSB-W4, released jointly by the North Carolina Agricultural Experiment Station and the Agricultural Research Service, U.S. Department of Agriculture. The other two clones, Syn. AA (866) and 63-125, were developed from plant material in the Purdue University Breeding Program. All clones were selected on the basis of their phenotype and progeny tests for high combining ability for resistance to leaf yellowing caused by potato leafhoppers [Empoasca fabae (Harris)]. Clone 63-125 was consistently rated as having a significantly higher level of resistance than the other five parental clones of this synthetic. As determined under field conditions, the progeny of clone 63-125 had significantly lower potato leafhopper populations than other progenies or check varieties. Therefore, Indiana Syn. C contains leafhopper resistance due to either antibiosis or nonpreference in addition to plant tolerance.

In a 3-year yield test at Lafayette, Indiana, Indiana Syn. C produced 4% more dry matter than ‘Vernal.’ Compared with

REGISTRATION OF NORTH DAKOTA 1381
AND 2749 BARLEY GERMPLASM
(Reg. No. GP 15 and GP 16)

A. B. Schooler

NORTH DAKOTA 1381 (CI 15243) and North Dakota 2749 (CI 15244) are spring barley (Hordeum sp.) lines selected from North Dakota Agricultural Experiment Station’s germplasm for breeding purposes because of their characteristics and strong straw.

North Dakota 1381 (GP No. 15) has the following characteristics: H. bulbosum 517 / H. vulgare L. /2/ H. vulgare L. /2/ ‘Traill.’ The other parentage is H. vulgare L. /2/ ‘Trophy’ /3/ H. vulgare L. /2/ ‘Traill.’ The F1 crosses and all crosses and selection was in the F5 generation. The parentage of North Dakota 1381 is H. bulbosum cytoplasm. Characteristics of North Dakota 1381 are rough red awns at or near maturity, a height of approximately 80 cm for Traill, six-rowed spikes when compared with cultivated six-rowed barley, and stinking smut. H. vulgare L. were autotetraploids. F1 plants of all crosses and selection in the F5 generation. The parentage of North Dakota 1381 is H. bulbosum cytoplasm. Characteristics of North Dakota 1381 are rough red awns at or near maturity, a height of approximately 80 cm for Traill, six-rowed spikes when compared with cultivated six-rowed barley, and stinking smut. H. vulgare L. were autotetraploids. F1 plants of all crosses and selection in the F5 generation.

Seed stocks are maintained by the Department of Agriculture, Pullman, WA 99163. Breeder and foundation seed (1 to 20 g) will be furnished to alfalfa breeders.