

## BENITO HARD RED SPRING WHEAT

Benito is an early maturing cultivar with four genes for leaf rust resistance. It is adapted to the rust area of Manitoba and eastern Saskatchewan.

Benito est un cultivar de blé vitreux roux de printemps à maturation précoce possédant quatre gènes pour la résistance à la rouille des feuilles. Il est adapté à la zone des rouilles du Manitoba et de l'est de la Saskatchewan.

*Triticum aestivum* L. 'Benito' was developed at the Agriculture Canada Research Station in Winnipeg. It was accessioned as RL 4314 in 1974, tested as BW 20 from 1975 to 1979, and licensed (No. 1955) in December 1979. Its outstanding attributes are its early maturity in the eastern prairies, and its leaf rust resistance. It is adapted to the rust area of Manitoba and eastern Saskatchewan, and particularly (because of its early maturity) to the northern half of this area.

### Origin

In 1963 a backcrossing program was started in which leaf rust resistance genes derived from Africa 43, Exchange, Webster and Centenario were to be moved individually into Manitou, and then combined in one cultivar. The resulting cultivar, RL 4255, was accessioned in 1968 and tested for 2 yr as CT 433, but was rejected for quality reasons. RL 4255 was used in the cross Neepawa/3/RL 4255\*4//Manitou/CI 7090 that produced Benito. The final cross was made in 1969. The leaf rust gene from Africa 43 was lost during selection.

Data on agronomic performance are included in Tables 1 and 2.

### Description

**SPIKE.** Elliptical, mid-dense, erect, short, medium green, slight waxy bloom, white at maturity. Glumes short, mid-wide, glabrous, white; shoulders wide, square; beaks mid-wide, acute; basal folds mid-size. Apical awnlets.

**KERNEL.** Medium red, hard, small to mid-size, short to mid-long, mid-wide, ovate; brush area small to mid-size, brush hairs mid-long; germ mid-size, round; crease mid-wide, mid-deep; cheeks rounded to slightly angular.

**DISEASE REACTION.** Resistant to stem rust and to leaf rust (genes *Lr1*, *2a*, *12* and *13*); moderately resistant to common root rot, loose smut and bunt.

**SAWFLY REACTION.** Susceptible.

**QUALITY.** Superior to Marquis.

Breeder Seed from 123 Breeder Lines will be maintained by the Seed Section of Agriculture Canada Research Station at Regina.

Table 1. Five-year averages from Report on the Central Bread Wheat Co-operative Tests, 1979

Trait	No. of tests	Neepawa	Sinton	Benito	Units
Yield	47	3230	3220	3190	kg/ha
Maturity	42	96.7	98.6	96.2	days
Lodging	28	1.9	1.7	2.2	1-9 scale
Height	44	89	91	88	cm
Test mass	47	80.7	81.0	80.8	kg/hL
Seed mass	30	33.3	36.0	31.8	mg/seed

Table 2. Data compiled from Reports on the Western Bread Wheat Co-operative Tests, 1976-1978

Trait	No. of tests	Neepawa	Chester	Benito	Units
Yield	23	3120	2900	3020	kg/ha
Maturity	13	101	102	101	days
Lodging	4	1.3	1.9	1.3	1-9 scale
Height	20	85	83	82	cm
Test mass	13	78	78	78	kg/hL
Seed mass	13	32	34	31	mg/seed

A. B. CAMPBELL and E. M. CZARNECKI  
*Research Station, Agriculture Canada, 195  
Dafoe Rd., Winnipeg, Manitoba R3T 2M9.  
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