

REPORT OF THE NATIONAL CERTIFIED SMALL GRAIN VARIETY REVIEW BOARD

Letter dated October 27, 1972

The National Certified Small Grain Variety Review Board reviewed the spring wheat variety Bounty 309 and approved it for certification.

Variety: Bounty 309

Experimental Designation: Cargill 309
(cg 309)

Applicant: Cargill, Inc.
2540 East Drake Road
Ft. Collins, Colorado 80521

Information pertinent to certifying agencies which was requested on the application and the information submitted by the applicant are given below. The applicant should be contacted if additional information is desired.

BOUNTY 309

1. Distinguishing characteristics: high yielding semi-dwarf hard red spring wheat; a one gene dwarf attaining a maximum height of approximately 30 inches; white chaff, awns, and good straw; in the maturity range of Waldron and slightly earlier than Chris and Justin.
2. Origin and breeding procedure: selected from bulk F₃ seed of a cross obtained from CIMMYT and developed by pedigree breeding. The F₃ bulk was planted in Ft. Collins in the spring of 1968. In 1968-69 the F₄ was grown in California and the F₅ in Minnesota in 1969. The bulk F₆ was grown in California during 1969-70 and planted in yield trials in Minnesota in 1970, 1971, in California in 1971-72 and in Regional Yield Trials in North Dakota and Minnesota in 1972.
3. Adaptation: present hard red spring wheat areas, primarily North Dakota, South Dakota, and Minnesota; acceptable for milling and baking purposes.
4. a. Plant and seed characteristics: Plants are semi-dwarf averaging 3-7 inches shorter than Waldron; attain a maximum height of about 30". The straw is white and of excellent strength. It has awned, oblong, mid-dense heads varying in length from 9-14 cm having white glumes. The head is erect to slightly inclined and is resistant to shattering. Kernels are red, hard, mid-long, elliptical; germ is mid-size; crease is narrow and mid-deep; cheeks are rounded; and the brush is mid-sized and short.
b. Variations: very few found. The commonest off-type is a similar plant type 2" to 3" taller. Rarely a tall awnless plant is found.
c. Growth habit: spring habit.
d. Adaptation: adapted to the main hard red spring wheat producing areas of the United States; classed as a medium to late maturing variety, falling into the maturity class of Waldron and Chris, being slightly earlier than both but later than Bounty 208; exhibits some daylength sensitivity.
e. Special markers: none observed.

f. Disease reactions: resistant to prevalent races of stem rust, has a T-SR/R reaction to leaf rust and is moderately resistant to Septoria.

g. Insect resistances: none listed.

h. Yield

Variety	1970		1971		Average
	Glyndon, Minn.	Glyndon, Minn.	E.G.F. Minn.	E.G.F. Minn.	
Chris	26.3				
Waldron	33.1	63.4		65.4	64.0
Bounty 309	31.6	85.0		87.5	86.3

i. Quality: excellent water absorption, mellow gluten and good milling and baking characteristics.

5. Procedure for producing and maintaining breeder seed: Foundation seed--a 5-ft. strip, 1300 feet long was grown and intensively rogued 4 times in the breeding nurseries at Ft. Collins, Colorado. An increase was made in California, and this was rogued 3 times. Further increases are now being made in North Dakota and Minnesota. These will be rogued a minimum of 2 times. A minimum of 10 ft. from all other wheat is being maintained in all cases. Breeder seed: 250 plant progenies of Bounty 309 grown in California during the 1971-72 season. From these, 150 plant progenies (5 x 50 ft. plots) are under further increase in an isolated field in North Dakota this summer. The progenies that are "true to type" will be bulked as Breeder seed. We have observed very little variation thus far.
6. Limitations of generations: will be grown under the Plant Variety Protection Law and will be sold only as Certified seed.
7. Registered seed will be offered for sale in the spring of 1973.