

WASCANA, A NEW DURUM WHEAT

Wascana, a new high quality durum wheat (*Triticum turgidum* L.) especially suited to the prairie region of Western Canada, was developed at the Canada Agriculture Research Station at Regina, Saskatchewan, from a cross Lakota² × Pelissier. The techniques used in producing Wascana are published separately (Hurd et al. 1972).

Wascana performs best in the Brown soil zones of Saskatchewan where it has outyielded Stewart 63 in Saskatchewan Regional Tests by 15% and Hercules by 9% (Table 1). Its yield advantage over these cultivars in the Black soil zone is slight. In a 46 station-year average Wascana has outyielded Pelissier by 9%. Tests in southwestern Saskatchewan in 1971 showed Wascana to equal Pelissier in yield in severely droughted areas. Seasonal rainfall in this area during 1971 (5 inches at Swift Current, Saskatchewan) was one-half to two-thirds of normal.

Wascana is between Stewart 63 and Hercules in days to maturity, resistance to lodging, height, and kernel weight as shown in Table 2. It is lower in hectoliter weight, but is resistant to stem and leaf rust, loose smut, and bunt.

Wascana is similar to Hercules in that it is superior to Stewart 63 in quality, having strong gluten and high pigment content.

About 3600 hl were distributed to seed growers in the Prairie Provinces in the spring of 1971 and an estimated 24,000 ha will be seeded in 1972.

Table 1. Yield in percent of Stewart 63

| Cultivar | Cooperative test 1967-71 | | Sask. Regional tests 1970-71 | |
|------------|-----------------------------|------------------------|---------------------------------|------------------------|
| | Brown soil 20 sta-yr | All soils 50 sta-yr | Brown soil 28 sta-yr | All soils 46 sta-yr |
| Stewart 63 | 100 | 100 | 100 | 100 |
| Hercules | 95 | 100 | 106 | 105 |
| Pelissier | 103 | Rusted | 112 | 104 |
| Wascana | 110 | 105 | 115 | 113 |

Table 2. Four-year average of agronomic and disease data

| | Days to maturity | Resistance to lodging | Ht (cm) | Hl wt (kg) | 1000 kernal wt (g) | Stem rust (%) | Leaf rust (%) | Loose smut (%) | Bunt† (%) |
|------------|------------------------|-----------------------------|------------|---------------|--------------------------|---------------------|---------------------|----------------------|--------------|
| Stewart 63 | 105 | 5.4 | 112 | 82.1 | 42 | tr | tr | 69 | 26 |
| Hercules | 99 | 2.9 | 78 | 81.7 | 44 | 0.3 | 8.7 | 1 | 13 |
| Wascana | 102 | 4.2 | 95 | 79.7 | 43 | 5.0 | 9.5 | 3 | 2 |

†3-year average.

Description

SPIKE. Fusiform, awned, mid-dense to dense, glumes glabrous and rough, mid-long, mid-wide with shoulders narrow and usually oblique; beak acute to straight; awns buff with a tendency to shed at harvest time; kernels mid-long, ovate to elliptical; germ mid-size, oval-shaped; crease mid-deep, mid-wide; cheeks rounded; brush short.

STRAW. Medium strong, medium long (6–7 inches shorter than Stewart 63).

MATURITY. Medium early (3 days earlier than Stewart 63).

DISEASE REACTION. Resistant to loose smut, bunt, and to prevalent races of leaf and stem rust; moderately resistant to kernel smudge.

MACARONI QUALITY. Superior to Mindum.

The authors express their appreciation to the quality laboratory and pathology sections of the Canada Agriculture Research Station, Winnipeg, Manitoba, for valuable assistance in identifying the high quality disease-resistant line, Wascana. Appreciation is also expressed to the many technicians and research officers who assisted in the field testing.

HURD, E. A., TOWNLEY-SMITH, T. F., PATTERSON, L. A. and OWEN, C. H. 1972. Techniques used in producing Wascana wheat. *Can. J. Plant Sci.* **52**: 689–691.

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