

REGISTRATION OF TORAL OATS¹

(Reg. No. 278)

R. L. Taylor²

'TORAL' (*Avena sativa* L.), CI 9163, is a spring oat developed by the Alaska Agric. Exp. Stn. and the ARS-USDA. Toral was selected from the cross 'Orion III'/'Tatrzenski' made at the Palmer Research Center in 1955. Orion III, PI 197839, is an early-maturing black-glumed oat from Sweden. Tatrzenski, PI 131633 (CI 3807), is a mid-season, yellow-glumed introduction from Poland. Toral has been tested in Alaska as 6111-55-19-95-15 since it was selected as a progeny row in 1961.

Toral is a mid-season, mid-tall, high-yielding, yellow-glumed oat. Principal performance comparisons have been in the Matanuska Valley of southcentral Alaska³. Here, in 10 seasons, Toral produced an average grain yield of 2,688 kg/ha, 15% above that of 'Golden Rain', a long-time recommended oat cultivar for this area. Toral averaged 2.4 days earlier in maturity and 7.4 cm shorter in height than Golden Rain. It has been equal to Golden Rain in test weight and crude protein content of grain, but superior in resistance to lodging and shattering. Toral has averaged 13% fewer culms per unit area, 26% more kernels per panicle, and 2% heavier kernels relative to Golden Rain. Forage dry-matter yield of Toral has averaged 6,070 kg/ha, 2% above that of Golden Rain.

Toral is recommended for full-season grain production in all areas of Alaska with sufficient growing season for oats. It is also recommended as a component of oat-pea forage mixtures. Forage yields have been favorable, and the improved straw-strength helps to support the peas in this forage mixture.

Toral was released to seed producers in Alaska in 1972. Breeder, foundation, and certified classes of seed are recognized. Breeder seed is maintained at the Alaska Agric. Exp. Stn., Palmer, AK 99645.

¹ Registered by the Crop Sci. Soc. Am. Cooperative investigations of the ARS, USDA and the Alaska Agric. Exp. Stn., Palmer, AL 99645. Journal Paper No. J-124 of the latter. Accepted 9 May 1977.

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³ Taylor, R. L.: 1972. New cereal varieties for Alaska. *Agroborealis* 4 (1):27.