The most distinctive morphological characteristic of TAM 0-301 is the prominent leaf-blade pubescence on all upper leaf surfaces. Pubescence is usually less pronounced on the lower surface of the leaf.

TAM 0-301 was increased rapidly to provide a crown-rust resistant oat variety for South Texas, as commercial varieties presently grown in the area are seriously damaged by the new virulent crown rust races 264-B and 325. Yield data are available only for the 1971-1973 period. It appears that the yield of TAM 0-301 will be at least equal to that of the better commercial varieties such as 'Coronado,' Cortez, and 'Florida 501' in South Texas when crown rust is absent or light. Under a severe crown rust epidemic at Beeville in 1972, TAM 0-301 produced 2,330 kg/ha, more than double the yield of any commercial variety. TAM 0-301 has been highly resistant to crown rust in field tests at several Texas locations during the past several years. It also exhibits moderate resistance to the current races of oat stem rust (Puccinia graminis avenae Eriks. and Hen.).

TAM 0-301 is more subject to winter injury than the varieties Coronado and Cortez. Therefore, it is being released as a forage and grain variety for South Texas only. Production north of Waco, Texas, is not recommended.

Foundation seed is maintained by the Foundation Seedstocks Section, Texas Agricultural Experiment Station, College Station, TX 77843.


REGISTRATION OF TAM 0-312 OATS1
(Reg. No. 257)

M. E. McDaniel

'TAM 0-312' oats (Avena byzantina C. Koch), C.I. 9199, was developed by the Texas Agricultural Experiment Station and varietal release was approved in June 1973. It was tested as Texas Selection 71C3098.

TAM 0-312 was increased from a single F1 plant from the cross Ab555/3/Ora/6S3868-4-2-2/Alamo-X/P.I. 296244* P.I. 296244 (A. sterilis L.) was chosen as a parent because of its excellent field resistance to races 325 and 264-B of Puccinia coronata Cda. var. avenae Fraser and Led. The breeding method and timetable for development of the variety were exactly the same as those described for TAM 0-301 (Reg. No. 256).

The juvenile growth of TAM 0-312 is semidecumbent to decumbent. TAM 0-312 resembles 'Coronado' in agronomic type and maturity. It is somewhat taller than Coronado, but straw length is equal. The panicle is equilateral, short to medium short, and midwide. Spikelet and floret separation is by fracture. Glumes are light red to yellowish red. The lemma color is light red to yellowish red. The lemma color is light red to yellowish red. The lemma nerves (usually 7) are somewhat obscure. Palea color varies from red to grayish red. Awns are rare, but an occasional straight awn is present. Kernels are large, midwide, and plump. Leaf blades of TAM 0-312 usually are glabrous; however, a low frequency of plants (<2%) are pubescent (See TAM 0-301 description, Reg. No. 256).

TAM 0-312 was increased rapidly and released simultaneously with TAM 0-301 to provide new oat varieties for South Texas with diverse crown rust resistance. All oat varieties presently grown in South Texas are seriously damaged by prevalent crown rust races, 264-B and 325. TAM 0-301 is available only for the 1971-73 period. Grain yield data have compared favorably with those of other varieties when crown rust was not severe. Yield of TAM 0-312 was almost twice as much grain (2,080 vs 1147 kg/ha) produced with TAM 0-301 in a heavy crown rust epidemic at Beeville, Texas, in 1972. TAM 0-312 has been highly resistant to crown rust in field tests at several Texas locations during the past several years. It is susceptible to races 325-B and 325 of Puccinia graminis avenae Eriks. and Hen.

TAM 0-312 appears as cold-tolerant as Coronado when grown north of Dallas, Texas, is not recommended.

Foundation seed is maintained by the Foundation Seedstocks Section, Texas Agricultural Experiment Station, College Station, TX 77843.

REGISTRATION OF NORANA WHEAT1
(Reg. No. 535)

F. H. McNeal and M. A. O'Brien

'Norana' wheat (Triticum aestivum L. em. Thell.), C.I. 15927, is a hard red spring wheat developed cooperatively by the Montana Agricultural Experiment Station and the Agricultural Research Foundation. Norana is the product of a single plant selection from the cross 'Sheridan'/2/C.I. 13253/5*Centana.' C.I. 535 was assigned Montana number MT 7042 in the spring of 1970, after the selection had performed well in a single row yield nursery. It has been tested 17 station years at Montana Research Centers, and has also been included in Montana station yield trials since 1970.

Norana is a single gene semidwarf with white straw, and is midseason to late in maturity. The plants are uniform, midseason, and similar in appearance to 'Shortana.' 'Norana' is more productive than Fortuna and other standard and resistant to stem rust and loose smut. Although not recommended for production in Montana, it is more productive than Fortuna and other standard cultivars, because it has a tolerance that allows it to yield well even while exhibiting visual symptoms.

The flour yield of Norana is less than that of Fortuna, but it equals that of Centana and most other semidwarf cultivars recommended for production in Montana. The agronomic characteristics of Norana are superior to those of other recommended cultivars. Norana is about 2% higher in protein than that of Fortuna and is more productive than Fortuna and other standard and resistant to stem rust. The loose smut resistance of Norana is equal to that of Fortuna and other resistant cultivars. Norana is more productive than Fortuna and other standard and resistant to stem rust. The loose smut resistance of Norana is superior to that of Fortuna and other standard cultivars. Norana is about 2% higher in protein than that of Fortuna and other recommended cultivars.