REGISTRATION OF HOUSTON OATS1
(Reg. No. 219)

I. M. Atkins, M. J. Norris, and P. E. Pawlisch2

‘Houston’ oats, (Avena byzantina L.) C. I. 7912, Texas Selection 57C1716, was developed from a complex cross of ‘Fulwin’ 2x ‘Lee’ x ‘Victoria’ 5x ‘Red Rustproof’ 4x Victoria x ‘Richland’ 5x ‘Bond’ x ‘Rainbow’ 2x ‘Hajira’ x ‘Joanette’ 3x ‘Landhafer.’ The cross was made in 1954 by I. M. Atkins. From advanced lines of the cross in yield trials, the final selection was made by P. E. Pawlisch in 1961. The basis of final selection was good agronomic type, excellent kernel type, and resistance to crown rust races 203, 216, 290, and 294, then prevalent in Texas. Houston is susceptible to stem rust. It has good resistance to Victoria blight and culm rot.

Exact classification of Houston as to species may be questioned as it has some characteristics of each. Plants are near spring habit, and the variety is very susceptible to cold injury, which limits its adaptation for fall seeding in Texas. The straw is short and strong, so the variety stands well for combine harvesting. The quality of grain is excellent. Kernels are medium large, light red to near white, with very light or no awns.

Houston has performed well in south Texas from fall seeding and is well adapted to spring seeding in northwest Texas. When fall seeded in the central Texas oat grain producing area, it is frequently damaged by low temperatures. Forage production of Houston was excellent, especially for the early fall season. It does not resist livestock trampling as well as the more prostate types. Where the rust resistance of Houston is effective, the variety has performed well as a forage oat. Foundation seed of Houston oats was released in 19643.

1Registered by the Crop Science Society of America. Received July 5, 1967. Cooperative investigation of the Texas Agricultural Experiment Station and the Crops Research Division, ARS, USDA. Approved for publication as Technical Article No. 5928 by the Director of the Texas Agricultural Experiment Station, College Station, Texas.
2Research Agronomist and Small Grains Section Leader, U.S. Department of Agriculture and Texas Agricultural Experiment Station; Agronomist, Livestock and Forage Research Center, McGregor, Texas; and formerly Assistant Professor, Texas Agricultural Experiment Station, College Station, Texas.
3Houston — A new oat and forage oat for south Texas. Texas Agricultural Experiment Station Release Leaflet L-674, 1964.

REGISTRATION OF PENNMEAD ORCHARDGRASS
(Reg. No. 6)

James L. Starling2

‘Pennmead’ orchardgrass (Dactylis glomerata L. var. sativa) is a tall, stiff-strawed pasture grass that is well adapted to the northern two-thirds of Iowa and similar areas. It excels in northwestern Iowa and was named for O'Brien County (1). O'Brien is an early midseason variety that produces plump, yellow seed on semi-loose panicles. Its leaves are droopy, yellow green, and borne on strong, widely spaced, yellow flower stalks. O'Brien has genes P.g. 2 and P.g. 4 conditioning resistance to prevalent oat stem rust race 6F, as well as 7 and 8. It cannot, however, offer protection against races, including race 6AF. O'Brien is resistant to field tolerance to crown rust races 202, 203, 216, and probably other prevalent races of crown rust on commercial varieties, is susceptible to 264, and is susceptible to the Clintland race of loose smut but resistant to the Victoria race. It is resistant to Victoria blight and to yellow dwarf.

About 1,800 bushels of foundation seed was distributed in Iowa and other interested states for growing in 1967.

Literature Cited


REGISTRATION OF O'BRIEN OATS1
(Reg. No. 220)

J. Artie Browning, K. J. Frey, R. L. Grindeland,
M. D. Simons, and L. J. Michel2

‘O'Brien,’ Avena sativa L., C. I. 8174, is a tall, stiff-strawed oat that is well adapted to the northern two-thirds of Iowa and similar areas. It excels in northwestern Iowa and was named for O'Brien County (1). O'Brien is an early midseason variety that produces plump, yellow seed on semi-loose panicles. Its leaves are droopy, yellow green, and borne on strong, widely spaced, yellow flower stalks. O'Brien is a tall oat that nevertheless is lodging resistant. The straw of O'Brien is long and strong, so the variety stands well for combine harvesting. The quality of grain is excellent. Kernels are medium large, light red to near white, with very light or no awns. O'Brien has performed well in south Texas from fall seeding and is well adapted to spring seeding in northwest Texas. It has been the highest yielding variety in the intermediate maturity class developed from a complex cross of ‘Fulwin’ 2x ‘Lee’ x ‘Victoria’ 5x ‘Red Rustproof’ 4x Victoria x ‘Richland’ 5x ‘Bond’ x ‘Rainbow’ 2x ‘Hajira’ x ‘Joanette’ 3x ‘Landhafer.’ The cross was made in 1954 by I. M. Atkins. From advanced lines of the cross in yield trials, the final selection was made by P. E. Pawlisch in 1961. The basis of final selection was good agronomic type, excellent kernel type, and resistance to crown rust races 203, 216, 290, and 294, then prevalent in Texas. Houston is susceptible to stem rust. It has good resistance to Victoria blight and culm rot.

Exact classification of Houston as to species may be questioned as it has some characteristics of each. Plants are near spring habit, and the variety is very susceptible to cold injury, which limits its adaptation for fall seeding in Texas. The straw is short and strong, so the variety stands well for combine harvesting. The quality of grain is excellent. Kernels are medium large, light red to near white, with very light or no awns.

Houston has performed well in south Texas from fall seeding and is well adapted to spring seeding in northwest Texas. When fall seeded in the central Texas oat grain producing area, it is frequently damaged by low temperatures. Forage production of Houston was excellent, especially for the early fall season. It does not resist livestock trampling as well as the more prostate types. Where the rust resistance of Houston is effective, the variety has performed well as a forage oat. Foundation seed of Houston oats was released in 19643.

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