advanced via pedigree selection at Southern Illinois University at Carbondale.

Egyptian is highly resistant to races 3 and 4 of the soybean cyst nematode (SCN) (*Heterodera glycines* Ichinohe). Resistance was determined by field evaluation and greenhouse screening. Field evaluations were conducted on a race 3 infected field at Elkville, IL, and on a race 3 and 4 infected field at Sandridge, IL. Greenhouse screening was conducted in soils from both the above locations as well as a race 4 infected soil from Portageville, MO. It is susceptible to the root knot nematodes (*Meloidogyne incognita* (Kofoid & White) Chitwood and *Meloidogyne arenaria* (Neal) Chitwood). Egyptian is of Maturity Group IV, maturing 14 days later than Franklin and 3 days earlier than "Nathan." Egyptian is determinant (dt/dt) in growth habit, medium in height (at 84 cm), and possesses good lodging resistance (average score of 1.5 on a scale of 1 = all plants erect to 5 = all plants lodged). Egyptian has white flowers, tawny pubescence, and tan pods. Egyptian has yellow seed with shiny coats and black hila. Seed weight averages 12 g/100 seed.

Prior to its release, Egyptian was tested under the designation LS78-248 in nurseries throughout southern Illinois from 1978 through 1984 in the Uniform Preliminary Test IV South in 1980, Preliminary Test V in 1981, and in the Uniform Preliminary Test IV South in 1982 and 1983. Testing in the southern Illinois region indicates Egyptian yields approximately 10% higher than Franklin and 16% higher than Nathan.

Egyptian was released as a higher yielding SCN race 3 and 4 resistant cultivar alternative to the other SCN race 3 and 4 resistant cultivars available to growers in the Maturity Group IV region. No SCN race 3 and 4 resistant public cultivar of similar maturity is currently available. It was released in October 1984 by Southern Illinois University in cooperation with the Illinois Agricultural Experiment Station, Urbana, the Kentucky Agricultural Experiment Station, Lexington, and the USDA-ARS, Washington, DC. Southern Illinois University will maintain breeders seed.

OVAL MYERS, JR., AND M. E. SCHMIDT (1)

References and Notes

1. Professor and assistant scientist, respectively, Dep. of Plant and Soil Science, Southern Illinois University, Carbondale, IL 62901. The research was supported in part by a grant from the Illinois Soybean Program Operating Board. Registration by the Crop Sci. Soc. of Am. Accepted 28 Feb. 1987.

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REGISTRATION OF 'TAM 107' WHEAT

'TAM 107' (Reg. no. 718) (PI 495594), an early, awned, brown chalk, semidwarf hard red winter wheat (*Triticum aestivum* L.), was developed cooperatively by the Texas Agricultural Experiment Station and USDA-ARS. TAM 107 was evaluated as TX80GH2875 and released to producers in August 1984. The cultivar was an increase of a bulk of F2 seed from 30 F1 plant progenies of 1980 F2 greenhouse plant 2875, "TAM 105*4/Amigo", which was homozygous resistant to biotype C greenbug (*Schizaphis graminum* Rondani). The 30 F1 plant progenies were each determined to be homozygous resistant to biotype C greenbug. All crosses, backcrosses and greenbug resistance evaluations were made at the USDA Conservation and Production Research Laboratory, Bushland, TX, TX80GH2875, in the F3, was entered in Texas and regional trials in the fall of 1981.

TAM 107 is about the same height as TAM 105 and 10 cm shorter than 'Scout 66' in irrigated trials at Bushland. It is daylength neutral and its heading date, relative to that of daylength-sensitive TAM 105, varies from 1 to 2 days earlier in the northern parts of the hard red winter wheat region to nearly 12 days earlier at Dallas, TX. Its average heading date has been 2, 6, and 12 days earlier than TAM 105 at Bushland, Vernon, and Dallas, TX, respectively. Spikes are awned, fusiform, middense, and inclined to erect. Glumes are brown, glabrous, midlong, and narrow to midwide. Glume shoulders are narrow, wanting to oblique at the base and square at the apex. Beaks are medium width, acuminate, and 6 to 8 mm long. Kernels are ovate to elliptical and have small to midsize germ. The kernel crease is rounded, midwide, and middeep. The brush is midsized and midlong.

TAM 107 has yielded slightly more in irrigated tests and about the same average yield as TAM 105 in rainfed trials on the High Plains of Texas. TAM 107 was among the higher yielding entries in tests conducted in the Rolling Plains of Texas through 1984. Its 1982-1984 average yield in northern and central Texas was 95% the yield of the rust resistant cultivar 'Mit', however, in 1985, leaf rust (incited by *Puccinia recondita* Rob. ex. Desm. f. sp. *tritici* Eriks.) caused severe damage to susceptible cultivars and its yield was only 55% the yield of Mit. Leaf rust caused substantial yield reductions to susceptible cultivars in all areas of Texas in 1985.

TAM 107 had an outstanding performance record in the Southern Regional Performance Nurseries from 1982 through 1984 where it ranked no lower than fifth (1). The 3-yr average yield of TAM 107 was 21% greater than that of Scout 66.

The grain volume weight of TAM 107 has been about 1.5 kg/L less than Scout 66. TAM 107 is about as winter hardy as TAM 105 and Scout 66. It is resistant to powdery mildew (incited by *Erysiphe graminis* DC. f. sp. *tritici* E. Marchal) and biotype C greenbug but susceptible to biotype E. It is moderately resistant to stem rust (caused by *Puccinia graminis* Pers. f. sp. *tritici* Eriks. and E. Henn.) but is susceptible to leaf rust.

Quality characteristics of TAM 107 are equal to those of TAM 105 and Scout 66. Composites of grain from Southern Regional Performance Nurseries were rated as having promising overall functional milling and bread making properties in 1982 and 1983 (1). All quality characteristics of composites evaluated from 1982 through 1984 were rated satisfactory or better. Grain protein percent has been about the same as TAM 105, but from 0.5 to 1.0 percentage points less than that of Scout 66.

Application for Plant Variety Protection has been made for TAM 107 but certification will not be required. Breeders seed will be maintained by the Texas Agricultural Experiment Station at the USDA Conservation and Production Research Laboratory, Bushland, TX 79012. Requests for foundation seed should be sent to the Foundation Seed Service, Texas A&M University, College Station, TX 77843.


References and Notes

1. From joint progress reports for years indicated of cooperative investigation in the state experiment stations and USDA-ARS. Reports prepared by V. A. Johnson, formerly research agronomist and technical advisor, hard red winter wheat, USDA-ARS, Univ. of Nebraska, Lincoln. Quality data were provided by K. R. Finney, formerly research chemist, M.D. Shogren, research food technologist, and Y. Pomeranz, director, U.S. Grain Marketing Res. Lab., USDA-ARS, Manhattan, KS.