REGISTRATION OF ‘HAZEL’ OAT

‘HAZEL’ spring oat (Avena saliva L.) (Reg. No. 322; PI 498424), was developed at the Illinois Agricultural Experiment Station in cooperation with USDA-ARS and released in 1985. It was designated IL75-1056 during development and testing prior to release.

Hazel resulted from a cross of ‘Coker 227’/‘Clintford’/‘Portal’. It was first selected as a single panicle from an F4 bulk in the field at Urbana in 1973 and grown in a single-panicle row in 1974. The F2 and F3 generations were grown in the greenhouse using a modified single-seed descent method (1). Breeder seed of Hazel was produced by bulking 250 single hill-plots, each having originated from a single panicle and having been selected for uniformity in the field.

Hazel has been evaluated in advanced yield tests in Illinois since 1979, and in the Uniform Midseason Nursery for four years, 1979 to 1982. Based on data from Illinois and the uniform nursery trials, Hazel is a high-yielding cultivar with midseason maturity. It has short, stiff straw and excellent resistance to lodging. Hazel has excellent resistance to current Illinois races of crown rust, Puccinia coronata f. sp. avenae, and has excellent tolerance to barley yellow dwarf virus, but is susceptible to stem rust, Puccinia graminis Pers. f. sp. avenae Eriks. and E. Henn., and to smut, Ustilago avenae (Pers.) Rostr.

Compared to the widely adapted and high-yielding cultivar Ogle, Hazel has similar maturity and yield, better crown-rust resistance, higher test weight, a more attractive kernel, and has excellent tolerance to barley yellow dwarf virus often cause damage to susceptible oat cultivars. Culms of Hazel are glabrous except that the peduncle node is sparsely pubescent. Leaf margins are glabrous. Ligules are present. Hazel has equilateral panicles with ascending to spreading branches. Spikelet separation occurs by fracture and floret separation is by fracture. The midlong lemmas are glabrous. Basal hairs are absent. The second floret rachilla segments are glabrous and midlong. The kernels of Hazel are tan in color, medium to large in size, plump, and finely tapered at the tips. Some of the primary kernels of Hazel have prominent, non-twisted 1- to 3-cm long awns that usually separate from the kernel during threshing. Kernels are predominately fluorescent but may contain up to 0.2% of nonfluorescent variants.

Hazel is not protected under the Plant Variety Protection Act. Breeder seed is maintained by the Illinois Agricultural Experiment Station, Urbana, IL 61801. Designated classes of certified seed are breeder, foundation, registered, and certified.

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REGISTRATION OF ‘SPANCO’ PEANUT

‘SPANCO’ peanut (Arachis hypogea L. Subsp. fastigiata var. vulgaris) (Reg. no. 35; PI 531300) was developed and released cooperatively by the Oklahoma Agricultural Experiment Station and the USDA-ARS in May 1981. It is a composite of two phenotypically similar sister-line selections designated EC-5 and O-20. Both selections originated from a cross made at Stillwater, OK in 1972 between Chico germplasm (1) and 'Comet' (2). Both parents and descendant lines are commercial Spanish types. Following hybridization, pedigreed selection was practiced within the segregating populations. EC-5 and O-20 trace to F3 single plants, respectively, selected in 1974 at the Caddo Research Station, Fort Cobb, OK.

Chico (PI 268661), an extremely early-maturing type, was introduced into the USA in 1960 from Rhodesia, where it originally had been introduced from Krasnodar Territory, USSR, as Arachis line no. 370 (1). Because of small pods and seeds, and low yields when grown under traditional wide row spacings, Chico has not been commercially grown in the USA. Comet originated as a single plant selection made in Oklahoma from the cultivar ‘Starr’ (3). Starr was developed by the Texas Agricultural Experiment Station. The lines that comprise Spanco are sister lines to ‘Pronto’ (4), a productive, early-maturing spanish peanut released jointly by the Oklahoma and Georgia Agricultural Experiment Stations and the USDA-ARS in 1980. Although plant types of Spanco and Pronto are similar, the Spanco lines have a greener foliage color when mature, typical of spanish types, whereas Pronto turns decidedly yellow-green.

Data supporting the release of Spanco are based mainly on evaluations of the component lines. Extensive testing (9 tests) in Oklahoma during 1977 to 1980 indicated the lines to be very similar in yield and quality. In irrigated full-season trials, the average increase of the Spanish component lines over Comet and ‘Tamnut 74’ (two leading spanish cultivars at the time of testing) were, respectively, 18.7 and 26.2% for pod yield and 16.4 and 25.7% for gross dollar return per unit area. In those trials, the average yields for Spanco, Comet, and Tamnut 74 were 3003, 2530, and 2380 kg/ha, respectively. Mean total sound mature kernels and 100-seed weights for Spanco, Comet, and Tamnut 74 were 3003, 2530, and 2380 kg/ha, respectively. Mean total sound mature kernels and 100-seed weights for Spanco, Comet, and Tamnut 74 were 3003, 2530, and 2380 kg/ha, respectively.

References and Notes


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