REGISTRATIONS OF CULTIVARS

Registration of ‘Tamcot Pyramid’ Cotton

‘Tamcot Pyramid’ cotton (Gossypium hirsutum L.) (Reg. no. CV-120, PI 617042) was developed by the Texas Multi-Adversity Resistance (MAR) Genetic Improvement Program, Department of Soil and Crop Sciences, Texas Agricultural Experiment Station (TAES) and released in 2000. The TAES-MAR cotton genetic improvement program utilizes techniques and selection procedures for the simultaneous genetic improvement of resistance to abiotic and biotic stresses in addition to yield, earliness, fiber, and seed quality (Bird, 1982; El-Zik and Thaxton, 1989).

Tamcot Pyramid combines high yield potential, earliness, and excellent fiber properties with wide adaptation over the diverse growing and environmental conditions in Texas. Tamcot Pyramid was derived by crossing ‘Tamcot Sphinx’ (El-Zik and Thaxton, 1996) and CD3HGCBU8S-1-91, an unreleased MAR strain. CD3HGCBU8S-1-91 was the result of cross between CD3HCAHUIGH-2-88 (El-Zik and Thaxton, 1998) and CABUCAG8US-1-88, an unreleased MAR strain. On the basis of visual selection for yield potential, bolls from individual plants were bulked within an F3 row for advance to the F4 generation. By means of the MAR procedures (Bird, 1982; El-Zik and Thaxton, 1989), a single F3 plant was selected on the basis of boll set in the greenhouse for subsequent field evaluation. The resulting F3 progeny row was selected in the field on the basis of apparent yield potential, overall plant conformation, and fiber quality in comparison with commercial checks in 1995, was hand harvested and given the strain designation MAR-SPNXCDUG8H-1-95.

Tamcot Pyramid is early maturing, has pubescent stems and leaves, is glandless, possesses normal leaves and bracts, is nectaried, and has dark green leaves. It has a cylindrical shaped growth habit, flowers with cream-colored pollen, and storm resistant bolls. On the basis of measurements from yield trials conducted at College Station and Chillicothe, TX, in 1999, plants of Tamcot Pyramid are of medium height, averaging 4 cm taller than Tamcot Sphinx and 2.5 cm shorter than Paymaster 330 (Calhoun et al., 1997).

Tamcot Pyramid is highly resistant to bacterial blight [caused by Xanthomonas campestris pv. malvacearum (Smith) Dye], Tamcot Pyramid has similar levels of resistance to aphids (Aphis gossypii Glover), thrips (Thrips and Frankliniella spp.), flea-hopper [Pseudatomoscelis seriatus (Reuter)], boll weevil (Anthonomus grandis Boheman), tobacco budworm [Heliothis virescens (F.)], bollworm [Helicoverpa zea (Boddie)], and sweetpotato whitefly (Bemisia argentifolii Bellows & Perring), plus pathogens causing seed-seeding diseases (Pythium ultimum Trow and Rhizoctonia solani Kühn), Verticillium wilt (Verticillium dahliae Kleb.), Fusarium wilt-root-knot nematode complex [F. oxysporum sp. vasinfectum and Meloidogyne incognita (Kofoid & White)], Phymatotrichum root rot (Phymatotrichum omnivorium Duggar), and leaf spots (Alternaria, Aschchytha, and Phomopsis spp. and other genera) affecting cotton as Tamcot Sphinx.

In irrigated trials conducted at College Station for 2 yr, Tamcot Pyramid reached 55% open bolls 136 d from planting, while Tamcot Sphinx required 142 d and Paymaster 330 required 149 d. Averaged across 17 yield trials in Texas from 1997 to 1999, Tamcot Pyramid averaged 16% higher lint yield and 11% larger bolls than Tamcot Sphinx and Paymaster 330. Lint fraction was similar to Tamcot Sphinx and Paymaster 330. On the basis of 17 yield trials in Texas during 1997 through 1999, upper half mean (UHM) length, fiber bundle strength, and uniformity index of Tamcot Pyramid were similar to those of Paymaster 330. The UHM length of Tamcot Pyramid was 3% shorter and strength was 7% lower than Tamcot Sphinx. Micronaire reading of Tamcot Pyramid averaged 4.1 compared with 4.4 for Tamcot Sphinx and Paymaster 330.

The Foundation Seed Service of the Texas Agricultural Experiment Station produces, maintains and sells Foundation seed to producers of Registered and Certified classes. Tamcot Pyramid has U.S. Plant Variety Protection (PVP 200100114) requiring that it be sold by variety name only as a class of Certified seed.

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References


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Registration of ‘Tyto’ Barley

‘Tyto’ barley (Hordeum vulgare L.) (Reg. no. CV-310, PI 632403) was released in 2002. Tyto was developed at the Field Crop Development Centre (FCDC) of Alberta Agriculture, Food and Rural Development (AAFRD), and was granted full registration (Reg. no. 5496) in 2002 by the Canadian Food Inspection Agency, Ottawa, ON, Canada. The name Tyto is adopted from the genus of birds commonly known as barn owls. Tyto is a hulless, six-rowed, smooth-awned, semi-dwarf, spring-habit, feed barley.

Tyto was derived from the cross of ‘Falcon’/‘Samson’ that was made in 1989. Falcon (PI 59612) (Helm et al., 1996) was released in 1993 and is a hulless, six-rowed, semi-dwarf, smooth-awned barley cultivar developed by the FCDC, Lacombe. Falcon was derived from the cross 11012.2/Tern/‘Tulelake’. Samson (PI 494767) (Helm et al., 1986) is a semi-dwarf, six-rowed, hulled, rough-awned, barley cultivar also developed at the FCDC, Lacombe and originated from the