

inbred. Maturity is in the AES 900 range. It is a tall, vigorous-growing inbred with a fairly low ear placement. T226 has good stalk qualities but only a fair root system. The plants produce a large, single ear with a medium husk cover and it will produce a large, single-ear hybrid. The plants produce only a fair amount of pollen, but grain yield is good. The medium flat, dark yellow kernels are produced on a red cob.

T232 (Reg No. GP115), released in 1969, was selected from a cross between the varieties Jellicorse and Teko Yellow. Jellicorse¹ is a white prolific variety from Tennessee while Teko Yellow is a large-eared yellow variety from South Africa. Teko Yellow has good resistance to stalk and ear rots, viruses, and sorghum downy mildew (*Peronosclerospora sorghi*, Weston and Uppal). T232 has a maturity comparable to T204 (AES 1000). It is a tall, vigorous-growing inbred with upright leaves and a fairly high ear placement. The inbred has a tendency to root lodge, but the stalks remain green after the grain matures. Pollen production is good and grain yield is fair. This inbred produces two or three medium-sized, slightly tapered ears on each stalk and it imparts this character in hybrids. The medium-large, dark yellow kernels are produced on a red cob. The hard, dimple-dent grain imparts excellent grain quality in hybrids. T232 has high general combining ability. It has excellent resistance to the corn virus disease complex and transmits this resistance in hybrids. It also has good resistance to the corn earworm (*Heliothis zea*, Boddie), kernel and cob rots, and sorghum downy mildew caused by *Peronosclerospora sorghi*, Weston and Uppal.

REGISTRATION OF TIFRUST-13 PEANUT GERMPLASM¹ (Reg. No. GP 30)

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TIFRUST-13 peanut (*Arachis hypogaea* L. ssp. *hypogaea* var. *hypogaea*) was named and released as a germplasm line 7 Dec. 1981 by the ARS, USDA, the Univ. of Georgia Coastal Plain Exp. Stn., the International Crops Research Institute for the Semi-Arid Tropics, and the Agricultural Res. Organization, Israel. The genotype has resistance to peanut rust caused by *Puccinia arachidis* Speg. in greenhouse and field tests conducted in Georgia, Puerto Rico, and India. It has a larger seed and greater productivity than most other sources of rust resistance.

Tifrust-13 (ICG 7883) was developed by mass selection in the USA and Puerto Rico from PI 315608, an accession from Israel Line 136. Line 136 was an off-type in an introduction from the USA whose specific source went unrecorded. The accession was resistant when inoculated in a greenhouse at Frederick, MD, with rust cultures from Texas and Puerto Rico. It exhibited little to moderate infection and damage to natural epiphytotics of rust

at Tifton, GA, in 1976 and at Isabella, Puerto Rico, during three winter tests in 1977, 1978, and 1979. Higher yielding plants showing the least rust were selected annually to minimize phenotypic variation. The selected progeny were screened at ICRISAT in the 1979 rainy and the 1979–80 postrainy seasons with susceptible entries grown adjacent or interspersed to insure heavy disease development. Tifrust-13 rated three on a nine-point disease scoring scale, the same score as Tarapoto, the standard resistant germplasm.

Mainstems of Tifrust-13 produce only vegetative branches and these in turn produce an alternation of vegetative and reproductive axes, usually in pairs. Plants are semi-erect, and mature at about 135 days in Georgia. Standard petals are orange. Seed average 800–900 mg in weight, are dormant at harvest, and have an off-white testa (159C in the Royal Hort. Soc. Colour Chart). The genotype is susceptible to leafspots caused by *Cercospora arachidicola* Hori. and *Cercosporidium personatum* (Berk. and Curt.) Deighton.

Peanut rust, discovered in Paraguay in 1882, spread slowly through the Western Hemisphere, reaching the USA about 1920. Since then outbreaks have occurred in every state where the crop is grown commercially. During the past 13 years rust has spread throughout the world, and it is now a major cause of losses in yield and quality. The development of disease resistant cultivars would be a practical and effective method of controlling the disease.

For breeding research, 25 seed of Tifrust-13 will be provided upon written request and agreement to appropriately recognize its source as a matter of open record when this germplasm contributes genetic information or to the development of a new cultivar.

Seed stocks will be maintained and distributed by the Dep. of Agronomy, Univ. of Georgia Coastal Plain Stn., Tifton, GA 31793, and by the International Crops Research Institute for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India.

REGISTRATION OF TIFRUST-14 PEANUT GERMPLASM¹ (Reg. No. GP31)

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THE peanut (*Arachis hypogaea* L.) line Tifrust-14 was developed cooperatively by ARS-USDA, the Univ. of Georgia Coastal Plain Stn., and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). It has moderate resistance to rust (caused by *Puccinia arachidis* Speg.) but lacks several desira-

¹Registered by the Crop Sci. Soc. of Am. Cooperative investigations of ARS-USDA, the Univ. of Georgia Coastal Plain Stn., and the International Crops Res. Inst. for the Semi-Arid Tropics, (ICRISAT). Accepted 10 Feb. 1982.

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³Bromfield, K. R., and S. J. Cevario. 1970. Greenhouse screening of peanut (*Arachis hypogaea*) for resistance to peanut rust (*Puccinia arachidis*). Plant Dis. Rep. 54: 381–383.

⁴Hammons, R. O. 1981. Breeding peanuts for disease resistance: rust and leafspot. In J. C. Wynne and T. A. Coffelt (eds.). Proc. Peanut Brdg. Symp., Richmond, VA, 1980. North Carolina Agric. Res. Serv. Res. Rep. 80:52–58.

¹Registered by the Crop Sci. Soc. of Am. Cooperative investigations of ARS-USDA, Tifton, GA, and Frederick, MD; the Univ. of Georgia Coastal Plain Stn., Tifton, GA; the International Crops Research Institute for the Semi-Arid Tropics, Patancheru, AP, India; and the Agric. Res. Org., Ministry of Agric., Bet Dagan, Israel. Accepted 10 Feb. 1982.

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