REGISTRATION OF GA 207-3-4 PEANUT PARENTAL LINE

GA 207-3-4 (Arachis hypogaea L.) (Reg. no. PL-2) was cooperatively released as a parental line by the Georgia Agricultural Experiment Stations and USDA-ARS in March 1984. The genotype is a lineal selection from GA 207-3 which was originally developed by B.B. Higgins at the Georgia Station during the 1930's from the cross 'Basse' × 'Spanish 18-38' (2).

Reselection annually through the eighth self-pollinated generation from an erect, profusely-branched F2 plant established the GA 207-3 breeding line with pods resembling the spanish-type parent and easily blanched seeds of tender texture (2). Despite a 25 to 40% yield advantage over typical small spanish cultivars and a 52 to 56% oil content, GA 207-3 was not released for the edible peanut trade because of its bland flavor (3).

GA 207, either alone or as derivatives from Florida cross no. 334A (1), has been widely used in U. S. peanut breeding programs. GA 207 occurs in the pedigrees of at least 17 cultivars: 'Florispam Runner', 'NC 2', 'Florigiant', 'NC 17', 'GK 3', 'Florunner', 'Shulamith', 'NC-Fla 14', 'Altika', 'NC 7', 'Sunbelt Runner', 'NC 8C', 'Sunrunner', 'GK 7', 'Keel 29', 'Early Bunch', and 'Virginia 81 Bunch'. Registered germplasms NC 3033 and F334A-B-14 also came from GA 207, the last genotype retained from this procedure. Subsequent increases were by mass selection. GA 207-3-4 designates the last genotype retained from this breeding line was maintained by choosing five crosses involving GA 207. Hundreds of U. S. breeding lines and plants each year and planting seed from only one of these. Most of the lines were developed by pedigree programs. GA 207 occurs in the pedigrees of at least 1'

REFERENCES AND NOTES
4. Assistant geneticist, Univ of Georgia and supervisory research geneticist, USDA-ARS, Dep. of Agronomy, Coastal Plain Exp. Stn., Tifton, GA. Registration by the Crop Sci. Soc. of Am. Accepted 25 June 1984.

REGISTRATION OF RTx430 SORGHUM PARENTAL LINE

RTx430 [Sorghum bicolor (L.) Moench] (Reg. no. PL.140) was developed at the Texas Agricultural Experiment Station, Department of Soil & Crop Sciences, Texas A&M University, College Station, TX, and released 12 Feb. 1976. The pollinator RTx430 was derived from a cross between Tx2536, a superior and widely used male and a BC1F2 (further selected to F2) partially converted IS12661 (P1276887) zera (Class 30[1]) (1) from Ethiopia. The pedigree of RTx430 is (Tx2536 × SC170-[5-5-1-F2])×-4-4-1-4-0. The inbred was evaluated under the breeding designation, 74C5252. RTx430 was developed to replace Tx2536 which was susceptible to head smut caused by Sphaeolotheca reticula (Kuehn) Cline. and downy mildew caused by Peronosclerospora sorghii (Weston & Uppal) C.G. Shaw.

RTx430 is similar to Tx2536. Caryopsis are yellow and slightly pearly in appearance. Pericarp is translucent white allowing the color of the yellow endosperm to show through. No pigmented testa is present and is b. c. d. Caryopsis shape is broadly elliptic to biconvex. Awns are absent. The panicle is slightly longer than Tx2536, oblong to slightly cylindrical with a pointed tip, and semi-compact at maturity. Genotypically several caryopsis and plant traits are R SUMMARY: RTx430 has moderate resistance to gray leaf spot caused by Cercospora sorghi Ell. and Ev., zonate leaf spot caused by Gloeo cercospora sorghi D. Bain and Edg., maize dwarf mosaic virus, rust caused by Puccinia purpurea Cke. and is resistant to phytotoxic burns caused by most insecticides. These characteristics are transmitted to its hybrids, and both weathering resistance and seed quality are enhanced in hybrids, especially with red-seeded females. The line is widely adapted and should be useful throughout the U.S. sorghum belt and in the tropics where tropically adapted photoperiod insensitive hybrids are useful. RTx430 has high levels of disease resistance, especially to downy mildew, head smut and fusarium head blight caused by Fusarium moniliforme Sheldon. RTx430 has the ability to maintain a high level of green leaf area (nonsenescence) throughout the entire season and has a high quantity of nonstructural carbohydrates in the culm.

Breeders seed will be maintained at Texas A&M Univ., Dep. of Soil & Crop Sciences, College Station, TX 77843.

REFERENCES AND NOTES

REGISTRATION OF 22 SORGHUM PARENTAL LINES

The Oklahoma Agricultural Experiment Station developed 22 parental lines of sorghum, Sorghum bicolor L. Moench, (Reg. nos. PL-118 to PL-139) and released them in 1973. Most of the lines were developed by pedigree