ble agronomic characters. It was released 11 Dec. 1982 as germplasm for peanut breeding programs.

Tifrust-14 (ICG 7882) was mass selected from a line (D. H. Timothy No. 200) collected as an unnamed local cultivar from a storekeeper in the village of Juanjui, Peru, who obtained seed from farmers cultivating it on sandbars of the Rio Guayabamba in 1966. It was introduced to the USA as PI 314817.

When 245 peanut accessions were inoculated in a dew chamber or plastic tent at Frederick, MD, between 1967 and 1969, PI 314817 was resistant to rust cultures from Puerto Rico and Texas. Plants of this accession exhibited field resistance to rust when 700 *A. hypogaea* accessions were exposed to a natural epiphytotic at Tifton, Georgia in 1976. Resistance was confirmed at the USDA winter nursery in Puerto Rico during 1977, 1978, and 1979.1

Selected progeny from the line were among 6,000 peanut accessions evaluated for rust reaction in field trials at ICRISAT, 1979-81, where inoculator rows and spreader plants were used to insure uniformity of disease pressure. Tifrust-14 was among the most resistant lines in each environment.

Tifrust-14 has erect (bunch) plants with sparse, sequential branching, inflorescences in some main stem leaf axils, and other characteristics of *A. hypogaea* fastigiatum fastigiatum. Leaves are light green, flower standards are orange, and the fruit mature at about 135 to 140 days in Georgia. Pods are quite short and mainly three-seeded. Seed average 370 mg, lack dormancy at maturity, and have a light tan testa (179D, in Royal Horticulture Society Colour Chart). The genotype is moderately susceptible to the leafspots, *Cercospora arachidicola* Hori and *Cercosporidium personatum* (Berk. and Curt.) Deighton, in field trials in Georgia.

For breeding research, 25 seed of Tifrust-14 will be provided upon written request and agreement to appropriately recognize its source as a matter of open record when this germplasm contributes to the development of a new cultivar or genetic information.

Seed stocks will be maintained and distributed by the Dept. Agronomy Univ. of Georgia, Coastal Plain Station, Tifton, GA 31973, and by the International Crops Research Institute for the Semi-Arid Tropics, Panancheru P. O., Andhra Pradesh 502 324, India.

REGISTRATION OF FOUR SUGARBEET GERMPLASM LINES1 (Reg. No. GP66 to GP69)

J. S. McFarlane, J. O. Skoyen, and R. T. Lewellen2

Four sugar beet (*Beta vulgaris* L.) breeding lines were developed by ARS-USDA in cooperation with the Beet Sugar Development Foundation. Breeder seed will be maintained at the U.S. Agricultural Research Station, P. O. Box 5098, Salinas, CA 93915.

C502aa (Reg. No. GP66) is the increase of a self-fertile, green hypocotyl, type O, multigerm line that had been selfed 25 times under paper bags in the greenhouse. C502, also known as NB1, has excellent combining ability and possesses good resistance to bolting and curly top. The increase of the S of this line was widely used as a parent in commercial multigerm hybrid cultivars. The line will be useful in genetic and physiological studies requiring a homozygous, high-performing inbred.

C502aa (Reg. No. GP67) is a multigerm, self-fertile line that segregates for Mendelian male sterility and was produced from the cross C502ax C502aa. The line will segregate approximately 50% aa.

C512 (Reg. No. GP68) is the increase of a self-fertile, multigerm line that had been selfed 15 times. This inbred combines excellent bolting resistance with good curly top resistance. No bolters have been observed in California field tests with C512 (NB6) regardless of the date of planting. The line will be of value as a source of bolting resistance and for use in genetic studies.

C554 (Reg. No. GP69) is the increase of a self-fertile, multigerm line that had been selfed 16 times and was derived from NB4. This inbred combines resistance to stalk blight and bolting. Stalk blight is a serious disease of the sugarbeet seed crop in Oregon and is caused by *Fusarium oxysporum* sp. *betae*. When grown in fields severely infested with *Fusarium*, C554 rarely shows any stalk blight infected plants. The line will serve as a useful source of resistance to this disease and as a highly homozygous line for genetic and breeding studies.

REGISTRATION OF SUGARBEET GERMPLASM FOR CURLY TOP RESISTANCE1

(Reg. Nos. GP70 to GP72)

J. C. Theurer and D. L. Mumford1

Three sugarbeet (*Beta vulgaris* L.) breeding lines resistant to the curly top virus disease have been developed by ARS-USDA at Logan, Utah. These lines have been evaluated in cooperation with the Beet Sugar Development Foundation and the Utah Agric. Exp. Stn. A limited quantity of breeder seed of these lines is available for pro-rata distribution to bona fide sugar beet breeders upon request to ARS, USDA, Sugarbeet Research, Crops Research Laboratory, UMC 63, Logan, UT 84322.

L34 (Reg. No. GP70) is an *S*-, self-fertile, green hypocotyl, near type-O, multigerm inbred line selected for high resistance to curly top. It is more vigorous than L35 and has a curly top rating equal to L35. It also has resistance to powdery mildew caused by *Erysiphe polygoni*, D.C. "type" with a rating of 2.0 on a 0 (resistant) to 5 (susceptible) disease rating scale. L34 has not been tested extensively for combining ability. However, a few hybrids with Logan CMS inbreds have shown root yield and sucrose percentage equal to that of GW Mono Hy D2 commercial hybrid.

L40 (Reg. No. GP71) is an *S*-, self-fertile, type-O, multigerm inbred derived from a heterogeneous population of SL630 x CT3 sublines. During the past 3 years, L40 had an average curly top rating of 2.3 on the standard 1 to 9 scale, which is equal to the curly top rating of L35. Combining ability of this inbred has not been determined.

L50 (Reg. No. GP72) is an *S*-, self-fertile, green hypocotyl, near type-O monogerm inbred selected from an SLC129 x SLC132 population. It is a vigorous inbred with an average curly top rating of 2.3, which was equal to L35 during the past 3 years.


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