

Registration of KS91WGRC14 Stem Rust and Powdery Mildew Resistant T1BL·1RS Durum Wheat Germplasm

KS91WGRC14 (Reg. no. GP-343, PI 560335) is a durum wheat (*Triticum turgidum* L. var. *durum* Desf.) germplasm line homozygous for T1BL·1RS wheat-rye (*Secale cereale* L.) chromosome translocation, developed cooperatively by the Kansas Agricultural Experiment Station, the Wheat Genetics Resource Center, Kansas State University, USDA-ARS, and the Technical University of Munich. It was released by the Kansas Agricultural Experiment Station and the Wheat Genetics Resource Center, Kansas State University, as a germplasm in February 1992.

KS91WGRC14 is a BC₁F₂-derived line from the cross 'Cando'*2/'Veery'. Cando is a durum wheat cultivar, and Veery is a bread wheat cultivar carrying a T1BL·1RS wheat-rye chromosome translocation. KS91WGRC14 is the bulked, selfed progeny of a BC₁F₂ plant that had 2n = 28 chromosomes and was homozygous for T1BL·1RS, based on C-banding analysis (1).

KS91WGRC14 is resistant to cultures of the stem rust fungus *Puccinia graminis* Pers.: Pers. that are avirulent to the gene *Sr31* located on 1RS. It is resistant to cultures of the powdery mildew fungus (*Erysiphe graminis* DC. f. sp. *tritici* Em. Marchal) that are avirulent to the gene *Pm8* located on 1RS. KS91WGRC14 also produces polyacrylamide gel electrophoretic bands coded by the secalin locus on 1RS (2).

Small quantities (3 g) of seed of KS91WGRC14 are available upon written request. It is requested that appropriate recognition of source be given when this germplasm contributes to research or development of new cultivars. Seed stocks are maintained by the Wheat Genetics Resource Center, Department of Plant Pathology, Throckmorton Hall, Kansas State University, Manhattan, KS 66506-5502.

B. FRIEBE,* B. S. GILL, T. S. COX, AND F. J. ZELLER (3)

References and Notes

1. Friebe, B., F.J. Zeller, and R. Kunzmann. 1987. Transfer of the 1BL/1RS wheat-rye translocation from hexaploid bread wheat to tetraploid durum wheat. *Theor. Appl. Genet.* 74:423-425.
2. Friebe, B., M. Heun, and W. Bushuk. 1989. Cytological characterization, powdery mildew resistance and storage protein composition of tetraploid and hexaploid 1BL/1RS wheat-rye translocation lines. *Theor. Appl. Genet.* 78:425-432.
3. B. Friebe and B.S. Gill, Dep. of Plant Pathology, Kansas State Univ., Manhattan, KS 66506-5502; T.S. Cox, USDA-ARS, and Dep. of Agronomy, Kansas State Univ., Manhattan, KS 66506-5501; and F.J. Zeller, Plant Breeding Institute, Techn. Univ. of Munich, Freising-Weiherstephan, Germany. Cooperative investigations of the Kansas Agric. Exp. Stn., and the USDA-ARS. Contribution no. 92-414-J, Kansas Agric. Exp. Stn., Kansas State Univ., Manhattan, KS 66506-4008. Research supported in part by the Kansas Wheat Commission and Kansas Crop Improvement Assoc. Registration by CSSA. Accepted 31 July 1992. *Corresponding author.

Published in *Crop Sci.* 33:220 (1993).

Registration of ICGV 86031 Peanut Germplasm

ICGV 86031 (Reg. no. GP-58, PI no. 561917) is a spanish-type peanut (*Arachis hypogaea* L. subsp. *fastigiata* Waldron var. *vulgaris* Hartz) developed at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India. It was released in 1991 by the Plant Materials Identification Committee of ICRISAT because of its resistance to thrips (*Thrips palmi* Karny), jassid (*Empoasca kerri* Pruthi), spodoptera [*Spodoptera litura* (Fabricius)], groundnut leaf miner (*Approaerema modicella* Deventer) and bud necrosis virus (BNV), which causes bud necrosis disease (BND) in peanut. ICGV 86031 has also been found to be photoperiod insensitive and resistant to iron deficiency chlorosis (4).

ICGV 86031 was bred following bulk pedigree method from a cross made in 1982 between F334A-B-14 and NC Ac 2214. NC Ac 2214, a North Carolina State University germplasm line, is resistant to thrips and jassid, but has low yield potential and other undesirable traits (1). F334A-B-14 (Reg. no. GP-32) is a high-yielding, agronomically acceptable breeding line possessing resistance to diploidia collar rot [*Lasiodiplodia theobromae* (Pat.) Griffon & Malaubl.; syn. *Diplodia gossypina* Cooke] (2). The pedigree of ICGV 86031 is (F334A-B-14 × NC Ac 2214) F₂-B₁-B₃-B₂-B₃-B₂-B₃.

ICGV 86031 has an erect growth habit with sequential branching, elliptic to obovate, dark green, waxy leaves (3). There are four to eight primary and zero to two secondary branches. Its main axis is ≈ 30 cm high, with a canopy width of ≈ 37 cm. It matures between 105 and 110 d in the rainy season in peninsular India. It has two- and one-seeded small-sized pods with slight-to-moderate reticulation and ridges. It has a meat content of 66%. The seeds are rose tan, with a 100-

seed mass of 39 g. Oil content averages 52% and protein content averages 20%.

ICGV 86031, a high-yielding breeding line (4), can be cultivated in areas where *Spodoptera* spp., groundnut leaf miner, and bud necrosis disease are endemic. It can also be used in germplasm enhancement programs.

Genetic Resources Unit, ICRISAT, Patancheru, Andhra Pradesh 502 324, India, maintains breeder seed of ICGV 86031.

S. L. DWIVEDI,* D. V. R. REDDY, S. N. NIGAM,
G. V. RANGA RAO, J. A. WIGHTMAN, P. W. AMIN,
G. V. S. NAGABHUSHANAM, A. S. REDDY, E. SCHOLBERG,
AND V. M. RAMRAJ (5)

References and Notes

1. Amin, P.W., K.N. Singh, S.L. Dwivedi, and V.R. Rao. 1985. Sources of resistance to the jassid (*Empoasca kerri* Pruthi), thrips (*Frankliniella schultzei* (Trybom)) and termite (*Odontotermes* sp.) in groundnut (*Arachis hypogaea* L.). *Peanut Sci.* 12:58-60.
2. Hammons, R.O., D.M. Porter, A.J. Norden, and W.A. Carver. 1983. F334A-B-14 peanut germplasm. *Crop Sci.*, 23:1019-1020.
3. IBPGR and ICRISAT. 1985. Descriptors for groundnut. Rev. ed. Int. Board for Plant Genet. Resources, Rome, and Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, India.
4. ICRISAT. 1992. Groundnut elite germplasm ICGV 86031. ICRISAT Plant Material Description no. 32.
5. S.L. Dwivedi, D.V.R. Reddy, S.N. Nigam, G.V. Ranga Rao, J.A. Wightman, G.V.S. Nagabhushanam, A.S. Reddy, and V.M. Ramraj, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, Andhra Pradesh 502 324, India; E. Scholberg, former ICRISAT trainee, and P.W. Amin, former ICRISAT staff. ICRISAT J.A. no. 1335. Registration by CSSA. Accepted 31 July 1992. *Corresponding author.

Published in *Crop Sci.* 33:220 (1993).