

PI 574625 to 574630-continued

PI 574629 **origin:** United States. **cultivar:** FC718. **pedigree:** Interpollination of Rhizoctonia resistant selections from 4 USSR open-pollinated populations (Ramonsk 06 [5 plants], Ramonsk 100 [2 plants], Verkhynyachsk 072 [1 plant], and Vladovsk 20 [1 plant]). **other id:** 911032. **remarks:** Diploid, multigerm, low sucrose, and 27% green hypocotyls. Vigorous and heterogeneous. Potential source of high combining, resistant pollinators. Excellent Rhizoctonia (*R. solani* Ag-2-2) root rot resistance when tested under strong disease pressure. Unrelated to any other FC releases, but the resistance appears to be quantitative and reacts with the pathogen in the same manner as resistant germplasm from U.S. sources. Susceptible to leaf spot (*Cercospora beticola*) and curly top. Biennial. Breeding Material. Seed.

PI 574630 **origin:** United States. **cultivar:** FC719. **pedigree:** Polish 2x-4-73/Syn OP (FC702-5/FC701-5). **other id:** 911037. **remarks:** Diploid, multigerm, high sucrose, and 71% green hypocotyls. Because half the genes in the source were from a high sucrose Polish population unrelated to any U.S. germplasm, should have some genetic diversity and potential to yield high-combining, resistant pollinators. Excellent Rhizoctonia (*R. solani* AG-2-2) root rot resistance when tested under strong disease pressure. Little resistance to leaf spot (*Cercospora beticola*) or curly top. Biennial. Breeding Material. Seed.

PI 574631 to 574637. *Helianthus annuus* L. ASTERACEAE Sunflower

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PI 574631 **origin:** United States. **cultivar:** PH1. **pedigree:** Resistant wild *Helianthus* accessions X HA 89. F1 plants resistant to all 4 North American rust races backcrossed to HA 89. BC1F1 resistant plants backcrossed to HA 89. Self-pollinated resistant BC2F1, BC2F2 and BC2F3 plants. **remarks:** Most plants single-headed and self-compatible. Plant height 1.5m. Seeds either black or black with white stripes, 1,000 seed weight of 34g. 87.5% cultivated *H. annuus* and 12.5% wild *Helianthus* nuclear genes in HA 89 cytoplasm. BC2F4 generation has dominant resistance genes against each of the four predominant North American rust races with an approximate frequency of 66%. Spring Annual. Breeding Material. Seed.