

PI 559473 to 559475-continued

PI 559473 **donor id:** Inbred 23/78B. **origin:** Bulgaria. **collector:** S. Vulchinkov. **other id:** BE-1809. Annual. Breeding Material. Seed.

PI 559474 **donor id:** Inbred 23-90/77B. **origin:** Bulgaria. **collector:** S. Vulchinkov. **other id:** BE-1809. Annual. Breeding Material. Seed.

PI 559475 **donor id:** Synthetic L. **origin:** Bulgaria. **collector:** S. Vulchinkov. **other id:** BE-1809. Annual. Breeding Material. Seed.

PI 559476 to 559479. *Helianthus annuus* L. ASTERACEAE Sunflower

Donated by: Jan, C.C., Agricultural Research Service -- USDA, Northern Crop Science Lab, Fargo, North Dakota 58105-5677, United States. **remarks:** Four Sunflower Nuclear Male-Sterile Genetic Stocks. Received January 10, 1991.

PI 559476 **origin:** United States. **developed:** C.C. Jan. **origin institute:** Agricultural Research Service -- USDA, Northern Crop Science Lab., Fargo, North Dakota 58105-5677 United States. **cultivar:** NMS HA 89-360. **pedigree:** Seed treatment of HA89 seed with mytomycin C or streptomycin. Sib-pollination of M3 NMS plants with heterozygous fertile plants of M3 X HA89. Sib-pollination for 2 generations followed by self-pollination. **other id:** GS-2. **source:** Crop Sci. 32(6):1519 1992. **group:** CSR-SUNFLOWER. **restricted:** CSR. **remarks:** Appears identical to HA89, except for male sterility, expressed as lack of visible anthers. More than 90% open-pollinated seed set. Produces 25% homozygous fertile, 50% heterozygous fertile and 25% male-sterile progeny. Spring Annual. Genetic Material. Seed.

PI 559477 **origin:** United States. **developed:** C.C. Jan. **origin institute:** Agricultural Research Service -- USDA, Northern Crop Science Lab., Fargo, North Dakota 58105-5677 United States. **cultivar:** NMS HA 89-552. **pedigree:** Seed treatment of HA89 seed with mytomycin C or streptomycin. Sib-pollination of M3 NMS plants with heterozygous fertile plants of M3 X HA89. Sib-pollination for 2 generations followed by self-pollination. **other id:** GS-3. **source:** Crop Sci. 32(6):1519 1992. **group:** CSR-SUNFLOWER. **restricted:** CSR. **remarks:** Appears identical to HA89, except for male sterility, expressed as lack of visible anthers. More than 90% open-pollinated seed set. Produces 25% homozygous fertile, 50% heterozygous fertile and 25% male-sterile progeny. Spring Annual. Genetic Material. Seed.