Registration of Parental Lines

REGISTRATION OF SUNFLOWER PARENTAL LINE

HA 2071
(Reg. No. PL31)

R. E. Stafford and T. E. Thompson2

The sunflower (Helianthus annuus L.) parental line HA 207 and its cytoplasmic male sterile counterpart were developed cooperatively by the USDA-ARS and the Texas Agricultural Experiment Station and released in 1981. The cytoplasmic male sterile line (cms HA 207) was tested in hybrid combinations and released for its potential value in breeding programs and in the production of charcoal rot resistant F1 hybrids.

HA 207 is an F7 selection from a cross, designated as T63009, made in 1963 at College Station, Tex., by M.L. Kinman. T63009 is a cross of 'VNIIMK 1646' × HA 6. VNIIMK 1646 (PI 257642) is a Russian variety introduced into the United States. HA 6 was selected from the line 953-102-1-12-1-B-3-1-1. This line is one of the sources of rust resistance isolated from North Texas wild Helianthus annuus. Kinman described HA 6 as being highly self-fertile and resistant to rust incited by Puccinia helianthi Schw. Conversion of HA 207 to cytoplasmic male-sterility was accomplished by the backcross procedure.

HA 207 is resistant to charcoal rot, incited by Macrophomina phaseolina (Tassi) Goid. The reaction of HA 207 to rust was not determined, since rust occurred only sporadically in the nursery. It is midseason in maturity and plants have averaged 97 cm in height at Bushland, Tex. Plants are single-headed and average about 72 days to 50% flower compared to 78 and 67 days for HA 89 and RHA 274, respectively. Heads are of medium size; seeds are black-hulled with medium oil percentage and average 6.4 g/200 seed.

Hybrids between cms HA 207 and the fertility restorer lines RHA 272, RHA 273, RHA 274, RHA 297 and RHA 298 are equal to or better than hybrids produced using the CMS system. Limited quantities of seed of Vel and Fuzz may be obtained for seed should be submitted to Foundation Seed Serv., Texas Agric. Exp. Stn., College Station, TX 77843.

REGISTRATION OF SUNFLOWER PARENTAL LINES

CM 338 AND CM 3611
(Reg. No. PL 32 and PL 33)

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The sunflower (Helianthus annuus L.) lines CM 338 and CM 361 were developed at the Agriculture Canada Research Station, Morden. They were released in March, 1981 for production, is not competitive in yield with established cultivars, but, although agronomically suitable for production, is not competitive in yield with established cultivars. Both CM 338 and CM 361 have been converted to the cytoplasmic male-sterile system and are available as CMS lines. CM 338 was released mainly for its earliness and resistance to rust caused by Puccinia helianthi Schw. The inbred is a selection from the cross S-37-388RR × Smena*.2 It is about 4 days earlier in maturity and has about 37% oil content. It is a corymbose, daisy-like flower, and produces large flowers which mature about a week earlier than HA 89, it is about 4 days earlier in maturity and has a short dry-down period, and has about 37% oil content. It is a corymbose, daisy-like flower, and produces large flowers which mature about a week earlier than HA 89.

The inbred is an S3 selection from the cross S-37-388RR × Smena*.2 It is about 2 days earlier in maturity and has about 37% oil content. It is a corymbose, daisy-like flower, and produces large flowers which mature about a week earlier than HA 89. It is about 2 days earlier in maturity and has about 37% oil content. It is a corymbose, daisy-like flower, and produces large flowers which mature about a week earlier than HA 89.