RECORDS OF MS-2X, MS-4X, AND MS-6X KURA CLOVER GERPLASMS

Kura clover (*Trifolium ambiguum* M. Bieb.) germplasms MS-2X (Reg. no. GP-98; PI 547897), MS-4X (Reg. no. GP-99; PI 547898), and MS-6X (Reg. no. GP-100; PI 547899) were developed cooperatively by the USDA-ARS and the Mississippi Agricultural and Forestry Experiment Station and released in 1990. These diploid, tetraploid, and hexaploid germplasms provide plant breeders with genetically broad-based kura clover of known ploidy levels for further evaluation and selection.

MS-2X was produced from 35 diploid (16 somatic chromosomes) plants of 14 source populations. MS-4X was produced from 75 tetraploid (32 somatic chromosomes) plants of 31 source populations. MS-6X was produced from 48 hexaploid (48 somatic chromosomes) plants of 23 source populations. The source populations were kura clover plant introductions (PIs) originally from Australia, Iran, Turkey, and the USSR obtained from the Northeastern Regional Plant Introduction Station, Geneva, NY; PIs originally from Australia and the USSR no longer available for distribution; and other populations from Canada and England obtained by C.E. Townsend, USDA-ARS, Fort Collins, CO. Parent plants comprising these synthetic germplasms were selected primarily for poloidy level. Syn-1 seed of MS-2X, MS-4X, and MS-6X were produced from three replicates of each parent clone under field isolation at Mississippi State, MS, in 1987 and 1988. Due to lack of field vigor of the original MS-2X parents, Syn-2 seed of MS-2X was produced from greenhouse-grown plants in bee cages in 1990.

All parent plants of the three germplasms were resistant to mechanical infection by clover yellow vein virus and peanut stunt virus (1). The germplasms showed resistance to a Pragia population of the root knot nematode, *Meloidogyne incognita* (2).

**REFERENCES AND NOTES**

3. USDA-ARS, CSRL, Forage Res. Unit, P.O. Box 5367, Mississippi State, MS 39762. Contribution of the USDA-ARS, Mississippi Agric. For. Exp. Stn., Journal Accroids, and the USDA-ARS, Mississippi Agric. and For. Exp. Stn. Registration Accepted 30 April 1991. *Corresponding author.


REGISTRATION OF 13 DOWNY MILDEW TOLERANT INTERSPECIFIC SUNFLOWER GERMLASM LINES DERIVED FROM WILD ANNUAL SPECIES

Thirteen intergeneric sunflower germplasm lines derived from wild annual sunflower (*H. annuus* L. [Helianthus annuus L.]), cultivated sunflower (*H. annuus* L. subsp. *annuus* L.), *H. praecox* (A. Gray) Raf., *H. argophyllus* (Mill.) T. and G. Heiser, and *H. runyonii* (L.) E. F. and G. L. have been identified (1). Dr. G.A. Pederson, USDA, ARS, CRSL, Forage Research Unit, P.O. Box 5367, Mississippi State, MS 39762. 1991. *Corresponding author.