spotted alfalfa aphid — KS208 = 76, and Kanza (R) = 62, and Ranger (S) = 4. KS208 has not been evaluated for resistance to the alfalfa weevil.

KS208 was similar to Saranac in fall growth at St. Paul, MN.

Five grams of KS208 are available upon written request. It is requested that appropriate recognition of source be given when KS208 contributes to the development of a new cultivar or hybrid.

Seed stocks of KS208 are maintained by the Department of Agronomy, Kansas State University, Manhattan, Kansas 66506.

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References and Notes

3. (R) = resistant control; (S) = susceptible control.

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REGISTRATION OF AZ-88MS AND AZ-88NDC, NONDORMANT MALE STERILE AND MALE FERTILE MAINTAINER ALFALFA GERMPLASMS

AZ-88MS (Reg. no. GP-216) (PI 527687) and AZ-88NDC (Reg. no. GP-217) (PI 527688) alfalfa (Medicago sativa L.) germplasms were released by the Arizona Agricultural Experiment Station in September 1988. AZ-88MS contains high frequency of plants with complete male sterility. AZ-88NDC is a male-fertile, nondormant composite that has maintained high frequencies of complete male sterility when used as a pollen source during the development of AZ-88MS.

AZ-88MS was derived from a series of single and population crosses designed to introduce cytoplasmic male sterility into a nondormant nuclear background. All pollinations were performed by hand with the exception of the final pollinations for seed production of AZ-88MS and AZ-88NDC when both hand and honeybee (Apis mellifera L.) pollinations were utilized. A cytoplasmic male-sterile plant (6-4ms), selected from ‘Saranae’ by E.T. Bingham, University of Wisconsin, was pollinated with CUF A, a male-fertile plant from ‘CUF 101’. A male-sterile F, plant from this cross, designated SAMS 1, was pollinated with Lew 30, a male-fertile plant from ‘Lew’. Eleven male-sterile F, plants from this cross were pollinated with bulked pollen from 41 randomly selected plants of AZ-88NDC (described below). Thirty male-sterile plants were selected for high female fertility from this cross and were pollinated with bulked pollen from the 41 plants from AZ-88NDC to produce seed of AZ-88MS. AZ-88NDC is the Syn 1 generation of a composite of equal amounts of certified seed from 13 elite nondormant alfalfa cultivars: Pierce, UC Cibola, Armona, Meeca, Maricopa, WL 605, Pioneer 5929, DK 187, CUF 101, Sapphire, Lew, and NPI 8391.

Approximately 81% of plants from AZ-88MS are completely male sterile (no pollen shed when flowers are manually tipped), and 96% are self-sterile (no seed produced when self-pollinated) in greenhouse tests at Tucson, AZ. Winter dormancy in AZ-88MS and AZ-88NDC is equal to CUF 101. No pest resistance or forage yield data are available for AZ-88MS or AZ-88NDC.

Seed of AZ-88MS and AZ-88NDC will be provided upon written request and agreement to make appropriate recognition of its source as a matter of open record when the germplasm contributes to the development of a new germplasm, cultivar, hybrid, or strain cross. Seed requests should be directed to S.E. Smith, Department of Plant Sciences, University of Arizona, Tucson, AZ 85721.

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References and Notes


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REGISTRATION OF REGEN-S ALFALFA GERMPLASM USEFUL IN TISSUE CULTURE AND TRANSFORMATION RESEARCH

REGEN-S (Reg. no. GP-218) (PI 527689) alfalfa (Medicago sativa L.) germplasm was released by the Wisconsin Agricultural Experiment Station on 7 Dec. 1978. REGEN-S is a cultivated tetraploid (2n = 4 x 32) developed mainly from the cultivar Saranac by two cycles of recurrent selection for regeneration of plants from callus (1). About 67% of the genotypes in REGEN-S will regenerate plants from callus using the original culture protocol (1) and an even higher proportion will regenerate on an alternative medium (2). REGEN-S seed was produced under sponsorship of Regional project NC83 in Idaho in 1975.

The rapid increase in the percentage of regenerable plants by just two cycles of recurrent selection demonstrated that the ability to regenerate was (i) under genetic control and (ii) highly heritable. REGEN-S has been widely distributed (ca. 200 requests) and has been used in many tissue culture experiments (reviewed in 3). Currently it is being used in genetic transformation experiments. In herbage yield tests, (1.2 by 1.8 m replicated plots) REGEN-S yielded 90% of Saranac. The reduction could be due to inbreeding during recurrent selection or to some other factor that accumulated over generations of recurrent selection.

Seed of REGEN-S is available in lots of about 1 g, although larger amounts can be provided for special purposes. Seed will be distributed upon written request and agreement to make appropriate recognition of its source as a matter of open record when this germplasm contributes to the development of a cultivar, hybrid, or new germplasm. Requests for seed should be sent to E.T. Bingham, Agronomy Department, 1575 Linden Dr., University of Wisconsin, Madison, WI 53706.

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