Registration of Alfalfa Inbred Parental Line
MAG7

MULTILEAF ADVANCED GENERATION (MAG7) (Reg. no. PL-40, PI 565274) is an inbred line of alfalfa, Medicago sativa L. (2n = 4x = 32). MAG7 was developed by inbreeding and selection during experiments dating to 1965 (1) and was released by the Wisconsin Agricultural Experiment Station on 8 Oct. 1992. MAG7 was developed from an elite 'Multileaf' plant with white flowers which was self-pollinated for three generations, diploidized, redoubled, and inbred and selected for vigor and fertility seven additional generations. MAG7 (inbreeding coefficient F = 0.8) is a seed reproduced-line with good combining ability that has recessive, basically white flower color (allelic to basic color factor c2). Some plants in the line have faint purple color, but the condition is recessive and purple progeny are produced in crosses with purple, blue, cream, and yellow-flowered plants. Thus, the recessive condition is useful in monitoring line purity and identification of hybrids. The MAG7 line has been used in basic research (2) and as a parent in two experimental cultivars, WI6040 and INDEX. WI6040 is a synthetic involving six non-inbred and four inbred parents including MAG7. Inbred Derived Experimental (INDEX) is a chance double cross involving four inbreds: [WIS12 (F = 0.85) × MAG7 (F = 0.8)] × [WIS13 (F = 0.9) × HAG6 (F = 0.75)].

MAG is a benchmark alfalfa inbred line. Plants in the MAG 5 generation survived the stressful winter of 1991-1992, and plants in MAG 5, 6, and 7 generations have been the most vigorous, self-fertile, and easy to maintain of the inbred parents of INDEX. MAG7 was developed by selfing and/or sib-mating to produce seed if desired. MAG7 is more uniform than the other lines, although plants vary slightly in vigor and fertility. The line is multifoliolate, but the frequency of multifoliolate leaves decreased in advanced generations, and some MAG7 plants are mostly trifoliolate.

Seed for release was produced by intercrossing MAG6 plants by hand in the greenhouse. Seeds of MAG7 will be sent upon written request and agreement to recognize the source of the material when it is used in research or development of germplasm. Seed will be sent until the supply is depleted.

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References and Notes
3. Dep. of Agronomy, 1575 Linden Dr., University of Wisconsin, Madison, WI 53706. Research supported by College of Agricultural and Life Sciences, Univ. of Wisconsin and Natl. Res. Initiatives, 37301–6378. Registration by CSSA. Accepted for publication May 1993.

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Registration of A/B N127-A/B N132 Grain Sorghum Parental Lines

SIX GRAIN SORGHUM [Sorghum bicolor (L.) Moench] A1 cytoplasmic-genetic male sterile parental lines, A/B N127 through A/B N132 (Reg. no. PL-247 through PL-252, PI 562605 through PI 562610), jointly developed by the USDA-ARS and the Agricultural Research Division, Institute of Agriculture and Natural Resources, University of Nebraska, were released in April 1992. These parental lines are unique in having been derived from the RP2B (1) population (developed from American and exotic lines from Uganda and from the A&M-USDA/ARS Sorghum Conversion Program) and offer genetic diversity as potential seed source material for continued sorghum improvement.

The six lines were developed from an initial population of 150 RP2B S1's produced by Dr. William B. Ross (ARS Research Geneticist, retired) in 1975. 150 S1's were planted head to row at the University of Nebraska Agricultural Research and Development Center in 1975. In 1976 72 S2 selected for agronomic type were crossed to A1 Martin/KS4 F1 hybrid crosses with continued selection for agronomic characters were made during the period 1976 to 1987 to develop the male-sterile version of each A/B line.

During 1989-1991, the lines were evaluated at Mead and/or Lincoln, Nebraska, in single row plots of 10 ft. in length, using Tx432 and Tx2741 as males.]

<table>
<thead>
<tr>
<th>Height</th>
<th>Seed Yield 50%</th>
<th>Seed Yield 75%</th>
<th>Seed Yield (80%)</th>
<th>Seed Yield (90%)</th>
<th>Seed Yield (95%)</th>
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<tr>
<td>110</td>
<td>120</td>
<td>105</td>
<td>110</td>
<td>105</td>
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