Registration of Crop Cultivars

REGISTRATION OF WL 306 ALFALFA

(D. F. Beard)

'WL 306' alfalfa (Medicago sativa L.) was developed by the Waterman-Loomis Company and first made available for trial plantings in 1969. It was tested under the designation 303 AWK.

WL 306 is adapted to the same general area as 'Buffalo' and 'Cody' where it has given higher forage yields than those cultivars. It is less dormant as measured by late fall growth. Forage yields of 'WL 303' and WL 306 have been similar until bacterial wilt seriously thins stands, after which WL 306 excels in yield. WL 306 is resistant to the spotted alfalfa aphid, the pea aphid, bacterial wilt, and is somewhat more resistant to anthracnose than the Flemish cultivars. The diverse background of WL 306 includes 941 plant selections from the following sources at the conclusion of three cycles of screening with selection for pea and spotted aphid resistance: 75 selections from polycross progenies derived from four M. falcata × 'Vernal' crosses; 254 from WL 303 and 'WL 304,' 207 from 'WL 202,' 'WL 210,' and 'WL 211;' 292 from 'Atlantic' and Atlantic × Flemish crosses; and 118 from surviving polycross progenies (mostly Vernal and 'Ranger') with spotted aphid resistance. The M. falcata source was P.L. 231,731. Each of the five populations was increased under a screen cage to provide isolation from other flowering alfalfa, and is the source of breeder seed for WL 306. Though predominantly purple in flower color, WL 306 has approximately 20% blue or bluish green flowers, and 10% yellow, yellow-variegated, and white flowers.

WL 306 was favorably reviewed by the National Certified Alfalfa Variety Review Board in December 1969.

Seed of WL 306 will be produced under the three-generation sequence: breeder, foundation, and certified. Breeder seed is the composite from the five parent populations with the WL 303, WL 304, Atlantic, and Atlantic × Flemish crosses comprising 50% and the three harder populations 50% of the total. Foundation seed is produced only from breeder seed between the 37° and 44° parallels. Certified seed is produced from fields planted with foundation (or breeder) seed.

Registered by the Crop Science Society of America. Received May 29, 1970.

Vice President-Research, Waterman-Loomis Company, 1015 Chester Ave., Bakersfield, California 93309.

REGISTRATION OF MOAPA 69 ALFALFA

(O. J. Hunt, R. N. Peaden, W. F. Lehman, and E. H. Stanford)

'Moapa 69' alfalfa (Medicago sativa L.) was developed and tested cooperatively by the Crops and Entomology Research Divisions of the U.S. Department of Agriculture and Agricultural Experiment Stations of California and Nevada. It was released by these agencies in March 1970.

Moapa 69 was intended as a replacement for 'Moapa' in areas of Utah, Nevada, and California where Moapa is grown. Two of the parent clones of Moapa were replaced by two widely tested clones known to have better performance. The nine parent clones of Moapa 69 are C904, C905 C906, C907, C908, C909, and C910 from Moapa, C937 from 'Sonora' and 'El-Unico,' and C938 from 'Comanche.' The diverse background of Moapa 69 includes 947 plant selections from the following sources at the conclusion of three cycles of screening with selection for pea and spotted aphid resistance: 75 selections from polycross progenies derived from four M. falcata × 'Vernal' crosses; 254 from WL 303 and 'WL 304,' 207 from 'WL 202,' 'WL 210,' and 'WL 211;' 292 from 'Atlantic' and Atlantic × Flemish crosses; and 118 from surviving polycross progenies (mostly Vernal and 'Ranger') with spotted aphid resistance. The M. falcata source was P.L. 231,731. Each of the five populations was increased under a screen cage to provide isolation from other flowering alfalfa, and is the source of breeder seed for WL 306. Though predominantly purple in flower color, WL 306 has approximately 20% blue or bluish green flowers, and 10% yellow, yellow-variegated, and white flowers.

Moapa 69 was favorably reviewed by the National Certified Alfalfa Variety Review Board in December 1969.

Seed of WL 306 will be produced under the three-generation sequence: breeder, foundation, and certified. Breeder seed is a composite of equal amounts of seed from the nine parent clones intercrossed under isolation. Seed cl.

REGISTRATION OF KERR BARLEY


'Kerr' barley, (Hordeum vulgare L., emend. (Stillwater 582537), originated as an F3 head selection from the bulk population of the cross, 'Rogers' x 'Omugi' at Stillwater. Kerr was developed in a cooperation between the Oklahoma Agricultural Experiment Station (Stillwater) and the United States Department of Agriculture. The National Certified Alfalfa Variety Review Board.

Kerr is a six-rowed, rough-awned, facultative winter barley that is mid to midseason to late in maturity. In the fall and early winter, growth is semi-prostrate, with leaf sheaths and auricles green in immature plants. Spikes are lax to dense, parallel, and mid-long. The rachis internodes are 2.5 to 3 cm in length with long-hairy edges. The lemma awns are 4 to 10 cm long and are approximately one-half the length of the lemma. The rachilla are covered with long hairs. Kernels are white in color, with a mid-long with a few lemma teeth on the lateral nerves. Rachilla hairs are long and rachilla are slightly wrinkled to semi-wrinkled.

Table 1: Agronomic characteristics of Kerr barley compared to Will and Rogers.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Grain yield*</th>
<th>Test weight*</th>
<th>Heading date*</th>
<th>Height*</th>
<th>White seed*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerr</td>
<td>2,473.0</td>
<td>48.0</td>
<td>5-1</td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Will</td>
<td>2,881.0</td>
<td>45.4</td>
<td>4-28</td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Rogers</td>
<td>2,716.9</td>
<td>47.2</td>
<td>4-30</td>
<td>7.1</td>
<td>7.1</td>
</tr>
</tbody>
</table>

* Average of 43 replicated tests over a 7-year period. 1 Average of 3 replicated tests over a 7-year period. 2 Average of 5 replicated tests over a 7-year period. 3 Average of 100 survivors of 37 tests. 4 Average of 4 replicates over a 7-year period.

Agronomic data on Kerr compared with Will and Rogers is presented in Table 1. Kerr is similar to Rogers in agronomic characteristics including yield; however, it is superior to Will in plant hardiness and exhibits greenbug resistance is slightly better than Rogers in forage production. Kerr does not usually yield as well as Will as an alternate to Will if a greenbug tolerant variety is desired.