REGISTRATION OF COACHMAN OATS1
(Reg. No. 215)

John E. Grafius and R. L. Kiesling2

'Coachman' oats (Avena sativa L.), C.I. 7684, Mich., 56-30-1439, resulting from the cross of 'Marne' 4X 'Beaver' X 'Garry' 2X 'Clinton' 3X 'Clintland' made at East Lansing, Michigan, in 1956. Final selection was made in the F2 in 1958. It was named and released in 1963.

Coachman has the Clintland type of crown and stem rust resistance. It is an early maturing, high-yielding, high-test-weight oat. The kernels are large with tan lemma and palea. Coachman has field tolerance to Septoria avenae, the pathogen causing black stem disease, and to the barley yellow dwarf virus.

Coachman is recommended for Michigan as an early oat, but it has a yield advantage over Ausable only in the southern part of the State.

Bred seed is maintained by the Michigan Agricultural Experiment Station.

The origin, history, description, and performance of Coachman have been published.

REGISTRATION OF UTE SAFFLOWER1
(Reg. No. 4)

L. N. Leininger2

'Ute' safflower (Carthamus tinctorius) originated as an F3 selection from a cross of 'N8' and 'Pacific 7'. Ute was developed through a cooperative program with the Utah Agricultural Experiment Station and the Agricultural Research Service of the U.S. Department of Agriculture. Prior to release, this line was identified as U-15. It matures at approximately the same time as 'Gila' and 'US810' and is adapted particularly to irrigated production west of the 100th meridian except in the northern Great Plains and Arizona.

Ute has orange flowers with a few yellow and red flower segregates remaining in the line. It has more branches and heads of smaller diameter than other varieties and small seed. The percent oil content of the seed is slightly lower than Gila.

Ute has more resistance to Phytophthora root rot, especially the low temperature form, than any other variety and is moderately susceptible to Fusarium wilt. It has "field" tolerance to rust which enables it to withstand light infections successfully and make it possible to grow continuous safflower in the low humidity areas. It is highly susceptible to Alternaria.

Yields of Ute have exceeded Gila in irrigated tests by 334 pounds per acre over two years of testing in 13 western states and 1 Canadian Province and are equal to Gila when grown without irrigation. It is higher in test weight than Gila and grows to about the same height. It is resistant to harvest shattering due to its closed heads but threshes easily.

Ute was released in 1965 in Utah.

REGISTRATION OF FLAMBEAU SOYBEANS1
(Reg. No. 61)

A. M. Strommen, C. O. Rydberg and J. H. Torrill2

'Flambeau' soybeans (Glycine max (L.) Merr.) originated as a selection from a U.S. introduction at the Spooner Experiment Station, Wisconsin. Prior to release Flambeau was designated

REGISTRATION OF BETHEL SOYBEANS1
(Reg. No. 63)

H. W. Crittenden and R. H. Cole2

'Bethel' soybeans (Glycine max (L.) Merr.) originated as an F3 plant selection from the cross C. 799 X C. 35243 in a cooperative program of the Delaware Agricultural Experiment Station and the U.S. Regional Soybean Laboratory. Prior to release, Delmar was identified by the number UD 672. It is classified in maturity Group IV and is adapted to Delaware, Maryland, and northern Virginia.

Distinguishing characteristics of Delmar are white flowers, gray pubescence, yellow seed coats, and yellow hila. In comparison with Kent in the area of best adaptation, seed yields of the two varieties have been equal, but Delmar produces seed of superior quality and with higher oil content. Delmar is superior in resistance to shattering. It is resistant to a common species of root knot nematode (Meloidogyne incognita acrita), to a fungus (Diaporthe phaseolorum var. sojae) causing pod and stem blight, and to a fungus (Fusarium) causing frost damage of seed. Kent is susceptible to these pathogens. Delmar averages 2 inches taller and 4 days later in maturity than Kent.

Delmar was released in 1963 in Delaware and Maryland. The Delaware Agricultural Experiment Station will be responsible for maintenance of breeder seed.


<table>
<thead>
<tr>
<th>Variety</th>
<th>Seed yield</th>
<th>Date mature*</th>
<th>Lodging score</th>
<th>Plant height</th>
<th>Seed protein</th>
<th>Seed oil</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>bu/acre</td>
<td>in. scorer</td>
<td>g/100</td>
<td>in.</td>
<td>%</td>
<td>%</td>
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<tr>
<td>Flambeau</td>
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<td>1722</td>
<td>16.6</td>
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<td>2.8</td>
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<td>Acme</td>
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<td>1.5</td>
<td>27</td>
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<tr>
<td>Portage</td>
<td>26.8</td>
<td>1546</td>
<td>0.2</td>
<td>1.3</td>
<td>27</td>
<td>2.6</td>
</tr>
</tbody>
</table>

1 Registered by the Crop Science Society of America. Published as Miscellaneous Paper No. 358 with the approval of the Director of the Delaware Agricultural Experiment Station. Contribution No. 193 of the Department of Plant Pathology. Received Mar. 10, 1967.

2 Associate Professor of Plant Pathology and Assistant Professor of Agronomy, respectively. University of Delaware, Newark.