array of germplasm. Selections from this polycross were subsequently combined and progeny tested in various polycross and synthetic combinations. In 1955, four of the five parent clones of Fox were selected from this material; the fifth clone, 23-29, was selected from 'Fisher' after two generations of selfing.

In Minnesota, Fox is similar to 'Lincoln' in time of maturity. It is superior to other bromegrass cultivars in seedling vigor, seedling resistance to Rhizoctonia solani, root rot, and resistance to certain races of leaf spot disease (Helminthosporium spp.). Forage yield is equal to that of Lincoln. Tests indicate that Fox is adapted throughout Minnesota. It is probably adapted in adjacent states and Canada.

One generation each of breeder seed, foundation seed and certified seed classes is recognized for Fox. The Syn 1 generation of the five clones constitutes breeder seed which is maintained by the Minnesota Agricultural Experiment Station.

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**REGISTRATION OF TILLMAN WHITE CLOVER**

(P. No. 4)

Pryce B. Gibson, George Beinhart, and J. E. Halpin

'TILLMAN' white clover (Trifolium repens L.) is a 6-clone synthetic variety developed cooperatively by the South Carolina Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture. The parent clones, from Ladino white clover of diverse origins, were selected for profuse branching of stolons, sparse flowering, persistence of stands, general disease resistance, and improved forage production in South Carolina. Progeny evaluations were made in polycross and clonal cross tests. Tillman was tested as S.C. Expt. Var. The probable areas of adaptation are the areas in the Southern States adapted to Ladino.

Plants and seed of Tillman and Ladino are indistinguishable, but Tillman is superior in persistence of stands and in forage production.

Seed production of Tillman will be limited to three generations of increase from breeder seed; namely, one each of foundation, registered, and certified. Foundation and registered Tillman seed will be produced in Idaho, Oregon, or Washington. Only two successive seed crops will be permitted from a foundation or registered seed field. Certified Tillman seed may be produced from foundation or registered seed. The six parent clones and breeder seed will be maintained by the South Carolina Agricultural Experiment Station. Breeder seed will be an equivalent of viable seeds from each of three clonal crosses 269 × 462, 2682 × 3757, and 4384 × 4736.

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Table 1. Average performance of Westburn and two check varieties in tests conducted on fusarium wilt-infested and noninfested soils.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Lint yield, kg/ha</th>
<th>Pulled lint percent</th>
<th>2.5% sp (inches)</th>
<th>Micronaire, units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On infested soil*</td>
<td>Noninfested soil†</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variety</th>
<th>Lint yield, kg/ha</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Lankart 57</td>
<td>298</td>
<td>25.8</td>
<td>1.04</td>
<td>3.6</td>
</tr>
<tr>
<td>Auburn M</td>
<td>436</td>
<td>21.5</td>
<td>1.09</td>
<td>3.7</td>
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<tr>
<td>Westburn</td>
<td>427</td>
<td>22.8</td>
<td>1.04</td>
<td>3.6</td>
</tr>
<tr>
<td>Lankart 57</td>
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<td>25.8</td>
<td>1.04</td>
<td>3.6</td>
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<tr>
<td>Auburn M</td>
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<td>25.2</td>
<td>1.10</td>
<td>3.8</td>
</tr>
<tr>
<td>Westburn</td>
<td>734</td>
<td>25.2</td>
<td>1.07</td>
<td>3.6</td>
</tr>
</tbody>
</table>

* Data from five tests conducted at two locations over 3 years only.
† Data from five tests conducted at four locations over 2 years.

Westburn was released in 1967 to certified seed growers. The South Carolina Agricultural Experiment Station is responsible for the maintenance of breeder seed.

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**REGISTRATION OF NORSTAR FLAX**

(Reg. No. 30)

V. E. Comstock and J. H. Foster

'NORTHAR' flax (Linum usitatissimum L.) was developed at the University of Minnesota Agricultural Experiment Station and the Minnesota Agricultural Experiment Station. It is a 6-clone synthetic variety developed cooperatively by the South Carolina Agricultural Experiment Station, Clemson University, and the University of Minnesota. The six parent clones originated as an F3 progeny row from a single F2 plant selected in 1958 from 'Fisher'.

F2 plants were selected for resistance to Helminthosporium, and for the stormproof boll type. The F2 progeny row of 269 F2 plants were grown in Mexico without disease in 1962. Westburn descends from an F2 progeny row of 36 plants selected for the stormproof boll type. The progeny row was selected for the stormproof boll type and for resistance to fusarium wilt and nematodes, a character not previously available.

The primary agronomic advantage of Westburn is the combination of its stormproof boll and its resistance to fusarium wilt and nematodes. These characters were not available together in a commercial variety before the development of Westburn.

Westburn was released in 1967 to certified seed growers. The South Carolina Agricultural Experiment Station is responsible for the maintenance of breeder seed.

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1 Registered by the Crop Science Society of America. Received April 26, 1969.
2 Registered by the Crop Science Society of America. Approved for publication by the Director of Minnesota Agricultural Experiment Station. Received April 14, 1969.
3 Associated Professor of Agronomy, Oklahoma State University, Stillwater.
4 Associate Professor, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul, Minn. 55101.