THE AGRONOMY SEED FARM

D. C. Ebeltoft, J. F. Carter and L. A. Spilde

This is the 12th report on the operations of the Agronomy Seed Farm, Casselton, North Dakota. Prior to 1974 the Agronomy Seed Farm Council met biennially and reports of the seed farm operations were made during the same year. Since 1974 the Council has been meeting annually (by choice), thus this report constitutes the 3rd annual report.

This report of the Agronomy Seed Farm is prepared after the annual meeting of the Agronomy Seed Farm Council. The Council meets to review the seed increase performance at the seed farm and acts in an advisory capacity, with regard to production and seed processing activities. A history of the Agronomy Seed Farm was included in the 1974-75 annual report which also noted the 25th anniversary of the Agronomy Seed Farm.¹

Production

During this reporting period, 12,292 bushels of Foundation and Registered seed was produced. 15,289 bushels were sold. The higher number of bushels sold reflects seed purchases made from other states and Canada for North Dakota farmers. The purchase of such Foundation seed is made possible through the Seedstocks Project. During this same period, 1,935 pounds of Foundation grass seed was produced. The Agronomy Seed Farm is officially the only source of Foundation Nordan crested wheatgrass, Vinall Russian wildrye and Lodorm green needlegrass.

Foundation and Registered seed of “older” varieties (usually one year or more after release) is made available each fall until December 15, first to producers of Certified seeds, then to any producer. This policy is an attempt to ensure that sufficient Foundation and Registered seed is available to producers of Registered and Certified seed, and that after December 15 other growers wanting such high quality seed can secure it. Distribution of a newly-released variety is made through the Seedstocks Project from the Agronomy Seed Farm and/or from various Branch Experiment Stations in accordance with the seed increase policies of the Agricultural Experiment Station. Seed produced for sale as Foundation from the 1975 spring plantings is shown in Table 1.

New varieties increased for the first time at the seed farm include three crops (Table 2).

In addition to the production and purchases of new varieties and older popular varieties as shown in Table 1, small lots of Breeder seed from Canada have been increased. These lots are never more than 30 pounds, and production therefrom becomes the North Dakota source of Foundation seed of the respective varieties for the ensuing five years. Such increases have included Bonanza and Conquest barley; Sputnik sunflowers; Linott, Raja and Dufferin flax.

These varieties have been increased at the Agronomy Seed Farm by this procedure to have Foundation seed of these Canadian varieties readily available each year for interested North Dakota seed producers.

Seed Prices

The price of Foundation and Registered seeds sold by the Agronomy Seed Farm and Branch Experiment Stations is established by the Seedstocks Project with advice of seed producers, seed trade representatives and representatives from Experiment Stations, Agricultural Associations and Extension Service. The prices usually are established about November 1. Because the Seed-

¹North Dakota Farm Research, Vol. 33, Number 2, November-December, 1975.

Dr. Ebeltoft is professor and Dr. Carter is professor and chairman, Department of Agronomy; Dr. Spilde is superintendent, Agronomy Seed Farm, Casselton.
Table 1. Seed production at the Agronomy Seed Farm 1975 Crop Year

<table>
<thead>
<tr>
<th>Crop</th>
<th>Variety</th>
<th>Production (Bu.)</th>
<th>Sales** (Bu.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rye</td>
<td>Puma</td>
<td>—</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>Rymin</td>
<td>437</td>
<td>437</td>
</tr>
<tr>
<td>Hard Red</td>
<td>Bronze</td>
<td>339</td>
<td>338</td>
</tr>
<tr>
<td>Winter Wheat</td>
<td>Roughrider</td>
<td>11</td>
<td>—</td>
</tr>
<tr>
<td>Hard Red</td>
<td>Era</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>Spring Wheat</td>
<td>Ellar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Kitt</td>
<td>1,085</td>
<td>2,425</td>
</tr>
<tr>
<td></td>
<td>Waldron</td>
<td>—</td>
<td>351</td>
</tr>
<tr>
<td></td>
<td>ND519</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>ND522</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td>Durum</td>
<td>Botno</td>
<td>987</td>
<td>1,010</td>
</tr>
<tr>
<td></td>
<td>Crosby</td>
<td>1,000*</td>
<td>620</td>
</tr>
<tr>
<td>Barley</td>
<td>Peacock</td>
<td>830</td>
<td>1,131</td>
</tr>
<tr>
<td></td>
<td>Bonanza</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Dickson</td>
<td>—</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>Larker</td>
<td>1,520</td>
<td>1,625</td>
</tr>
<tr>
<td></td>
<td>Mankar</td>
<td>—</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>Nordie</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Oats</td>
<td>Garry</td>
<td>304</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>Rodney</td>
<td>248</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>Wright</td>
<td>—</td>
<td>301</td>
</tr>
<tr>
<td></td>
<td>ILL 67-1514</td>
<td>—</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>MN 7110</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>Flax</td>
<td>Culbert</td>
<td>765</td>
<td>844</td>
</tr>
<tr>
<td></td>
<td>Linott</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Soybeans</td>
<td>Ada</td>
<td>639</td>
<td>638</td>
</tr>
<tr>
<td></td>
<td>Evans</td>
<td>3,825*</td>
<td>2,831</td>
</tr>
<tr>
<td></td>
<td>Swift</td>
<td>—</td>
<td>387</td>
</tr>
<tr>
<td>Millet</td>
<td>Cerise</td>
<td>227</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Snobird</td>
<td>—</td>
<td>31</td>
</tr>
<tr>
<td>Grass</td>
<td>Nordan Crested Wheatgrass</td>
<td>1,030</td>
<td>767 lbs.</td>
</tr>
<tr>
<td></td>
<td>Vinall Russian Wildrye</td>
<td>47</td>
<td>148 lbs.</td>
</tr>
<tr>
<td></td>
<td>Lodorm Green Needlegrass</td>
<td>568</td>
<td>—</td>
</tr>
<tr>
<td>Sunflowers</td>
<td>Sundak</td>
<td>—</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Sputnik 71</td>
<td>9</td>
<td>—</td>
</tr>
<tr>
<td>Pinto Beans</td>
<td>U of I 111</td>
<td>133</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>U of I 114</td>
<td>145</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Wyo 1066</td>
<td>121</td>
<td>—</td>
</tr>
<tr>
<td>Great Northern</td>
<td>U of I 61</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Navy Beans</td>
<td>Sanilac</td>
<td>17</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Seafarer</td>
<td>118</td>
<td>—</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>12,292</td>
<td>15,289</td>
</tr>
</tbody>
</table>

*Estimated quantities
**Includes carry-over inventory and foundation seed purchased from other States and Canada for North Dakota farmers.

Currently, the committee has established and is using a "sliding price" scale. Each month, the seed prices are based on the monthly average Minneapolis grain market less freight plus a fair producer premium for all costs involved with processing. The producer premium does not fluctuate during a given season.

Improvements, Replacements, Purchases and Needs

Several pieces of equipment were replaced and the continuous flow dryer and conveyor system connected with seed processing equipment was installed. Table 3 shows the equipment inventory. Table 4 shows equipment needs for the ensuing four years.

Table 2. New varieties on increase in 1975

<table>
<thead>
<tr>
<th>Crop</th>
<th>Variety</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winterwheat</td>
<td>Roughrider</td>
<td>NDAES</td>
</tr>
<tr>
<td>HRS Wheat</td>
<td>Kitt</td>
<td>Minn.</td>
</tr>
<tr>
<td>Flax</td>
<td>Culbert</td>
<td>ARS, NDAES, Minn., S.D.</td>
</tr>
</tbody>
</table>

Table 3. Agronomy Seed Farm Equipment Inventory as of July 1, 1976.

**Tractors**
1974 F 1066 D IHC
1975 F 766 D IHC
1961 3010 JD
1963 602 MM
1951 B JD
1975 185 IHC

**Trucks**
1969 IHC pickup
1965 Ford F600
1974 IHC 1600

**Harvest Equipment**
1976 IHC 915 combine w/attachments
1963 Case 700 combine
1965 Owatonna swather

**Tillage Equipment**
1976 IHC moldboard plow - 4-bottom
1971 IHC moldboard plow - 5-bottom
1959 MM moldboard plow - 3 bottom
1963 JD tandem disk, 15-ft.
1957 Beet cultivator, 6-row
1958 JD rotary hoe, 20-ft.
1986 JD field cultivator, 15-ft.
1967 Melrow harrow, 15-ft.
1971 IHC cultivator, 6-row
1970 JD field cultivator, 21-ft.
1970 Vigen harrow, 4 section
1974 Howard rotovator, 100-inch
1969 Noble harrow, 42-ft.
1976 Rau Krombie, harrow-crumbler (leased)

**Seed Handling Equipment and Attachments**
1975 MC continuous-flow grain dryer
1950 Westgo grain elevator
1963 IHC row crop planter, 6-row
1965 Gustafson seed treater
1966 Burrows conveyor, 13-ft.
1961 Superior grain cleaner
Table 4. Agronomy Seed Farm Equipment Needs (1976-79)

1 - Weigh wagon
1 - Medium sized tractor
1 - Self-propelled swather
1 - Self-propelled sprayer
1 - 3/4-ton pickup truck
1 - Disk harrow
1 - 50' x 50' building addition
1 - Self-propelled combine

The financial report for the period July 1, 1975 to July 1, 1976 is shown in Table 5. The income for the Agronomy Seed Farm is entirely from seed sales as no appropriated funds are received.

Table 5. Agronomy Seed Farm Account as Provided by Office of the Director, North Dakota Agricultural Experiment Station, North Dakota State University, Fargo.

Balance on hand, July 1, 1975 $195,343.38

Income from farm:
July 1, 1975 to June 30, 1976

Seed sales $153,902.69
Expenditure
Reimbursement $ 3,288.12
Other miscellaneous $ 390.42
Total $157,561.23

Expenditures:
July 1, 1975 to June 30, 1976

Farm operations $124,974.69
Equipment $ 54,977.31
$179,952.00

Balance on hand July 1, 1976 $173,012.61

Other Activities

Along with the production of Foundation seed and the increase of new varieties, the superintendent of the Agronomy Seed Farm supervises the production of the Crop Quality Council trials to evaluate wheat quality, and provides the management, labor and equipment for seedbed preparation and some harvesting on the Dalrymple Experimental Plot. The Dalrymple Experimental Plot is 160 acres adjacent to the Agronomy Seed Farm used for research by the Departments of Agronomy, Soils, Plant Pathology and Horticulture at North Dakota State University. The Seed- stocks Project supervises the requests and allocations of experimental land on the Dalrymple Experimental Plot.

Future Plans and Council Members

The Agronomy Seed Farm Council met July 21, 1976. 15 members and one guest were present. Farmer members of the council are appointed for six-year terms by the Director of the Agricultural Experiment Station. They receive no compensation for this service. Council members are as follows:

Terms expiring in 1977:
Victor Legler, Jamestown
Al Kenner, Leeds
Don Brusegard, Gilby
Jerome Holter, Hatton

Terms expiring in 1979:
Gene Watne, Velva
A. H. Berg, Wyndmere
William C. Witteman, Mohall
Joe Weiss, Belfield

Terms expiring in 1981:
Marvin Dick, Munich
Ray Klindworth, Fessenden
Joe Kalvoda, Mandan
Arne Skarsgard, Makoti

Commissioner of Agriculture and Labor:
Myron Just, Bismarck

State Seed Commissioner:
Virgil Anderson, Fargo

Extension Agronomist:
Howard Wilkins, Fargo

Representing the North Dakota Crop Improvement Association:
Dave Sinner, Casselton

Representing North Dakota Agricultural Association:
Ted Klugman, Fargo

A local farmer:
George Howe, Jr., Casselton

Chairman, Department of Agronomy:
J. F. Carter, Fargo