

Biennial Report, 1967-69

THE AGRONOMY SEED FARM

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This is the seventh report on the operations of the Agronomy Seed Farm, Casselton, N. Dak., since its first field was sown in 1950. These reports are made in alternate years after the biennial meeting of the Agronomy Seed Farm Council. The period covered in this report is from July 1, 1967 to July 1, 1969.

Purpose

The Agronomy Seed Farm of 640 acres was purchased by farmers and businesses of North Dakota and given to the North Dakota Agricultural Experiment Station. The seed farm is self-supporting from seed sales, and has not received appropriated funds. The Agronomy Seed Farm was established for the purpose of increasing Foundation seed of new varieties, and the maintenance of supplies of pure seed of older, yet desirable, varieties. The varieties and experimentals increased or maintained each year are determined by the Seed Stocks Project in consultation with personnel of the Department of Agronomy, North Dakota Agricultural Experiment Station.

Production

During this reporting period 40,454 bushels of Foundation and Registered seed were produced and sold. In addition, 14,920 pounds of legume, grass, Triticale and millet seed were produced and sold. Four hundred eighty pounds of red clover seed were obtained from the National Foundation Seed Project and made available at cost to growers. Seed sold is listed in Table 1.

The 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 registered and certified Generation I seed will be obtainable by producers of commer-

cial grain. Distribution of a newly released variety is made through the Seed Stocks 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.

Table 1. Sale of Foundation and Registered seed by the Agronomy Seed Farm, Casselton, North Dakota, July 1, 1967 to June 30, 1969.

Crop	Variety	1967-68	1968-69
Hard red spring wheat.	Chris	1189 bu	
	Manitou	1632	72 bu.
	Polk	180	4193
	Waldron	45	2234
Hard red winter wheat	Hume	164	196
	Leeds	1598 bu.	1480 bu.
Durum wheat Barley	Dickson	495 bu.	
	Larker	1226	524 bu.
	Paragon		1684
	Primus	640	445
	Experimental barley	706	
Rye	Antelope	108 bu.	
	Frontier	1559	52 bu.
Flax	Bolley	276 bu.	10 bu.
	Noralta	398	213
	Windom	66	28
	Linott		56
	Norstar		130
	Nored	175	497
	Foster	15	
Oats	Dawn	201 bu.	826 bu.
	Wyndmere	118	1821
	Kelsey	1921	150
	Sioux	1840	574
	Holden	2953	1421
	Portal	1758	483
	Tyler	619	459
	Russell	40	150
	Harmon	553	25
	Kota		619
Soybeans	Altona	220 bu.	405 bu.
	Clay	90	722
	Traverse	100	100
Grasses	Nordan Crested		
	Wheatgrass	200	1600 lbs.
Legumes	Vinall Russian Wildrye	4216	
	Birdsfoot Trefoil (Dawn)	534 lbs.	
Millet	Lakeland Red Clover	230	250
	Turghai	3000 lbs.	720 lbs.
Triticale	Panhandle		150
	Rosner		4500 lbs.

Ebeltoft is associate professor, Dr. Carter is chairman, Department of Agronomy, and Jendro is superintendent of the Agronomy Seed Farm.

New Varieties

The foregoing list in Table 1 includes 39 varieties of 11 crops, 14 of which were new during 1967-69. New varieties in 1967-69 were:

Wheat	Polk Waldron
Barley	Primus (now Primus II) Paragon
Flax	Foster Nored Linott Noralta
Oats	Sioux Kelsey Holden Portal Kota
Millet	Panhandle

Waldron and Polk hard red spring wheat were first increased in North Dakota at the Agronomy Seed Farm as experimentals. These wheats were further increased in Arizona and Mexico prior to release. As a consequence, the 39 bushels of the experimental ND 363-1 (Waldron) produced at the Agronomy Seed Farm in 1967 is now estimated to have been increased to 2,000,000 bushels in fall of 1969.

Production Practices

Weather has been favorable for small grain crops the past two seasons. Annual production at the Agronomy Seed Farm has been about 20,000 bushels. However, a good regime of cropping and good management of farming practices does much to maintain the high production.

Fall fertilizing is done late in the season and all fall plowing and tillage practices are done as early as conditions permit. A combination of chemical and mechanical weed control is practiced. Excellent stands of alfalfa (intended for seed) have been established without a nurse crop by the use of chemical weed control.

Rotations are carefully planned to avoid in-

separable seed mixtures from recurring volunteer plants. Planting and harvesting equipment is always carefully cleaned between seeding or harvest of different crops or varieties of same crop.

Seed Prices

Price of Foundation and Registered seed sold by the Agronomy Seed Farm is established by the Seed Stocks Project. Prices are kept as reasonable as possible.

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.

Improvements

During the report period the following equipment was purchased:

- Noble spring tine harrow
- Hydraulic drawbar
- Pickup truck
- Plot combine (Wintersteiger)
- Self-propelled sprayer
- Cozy tractor cab
- One 10 h.p. electric motor
- One Model 12M gravity seed separator

The financial report for the period July 1, 1967 to July 1, 1969 is shown in Table 2. The in-

Table 2. Agronomy Seed Farm account as provided by office of the director, North Dakota Agricultural Experiment Station, Fargo.

	July 1, 1967 - June 30, 1968	July 1, 1968 - June 30, 1969
Income:		
Balance on hand July 1	\$38,109.46	\$32,363.63
Income from farm:		
Seed and misc. grain	\$66,310.30	\$66,826.49
Other miscellaneous	<u>2,236.24</u>	<u>572.55</u>
Total	<u>68,546.54</u>	<u>67,399.04</u>
Expenditures:	\$106,656.00	\$99,762.67
Farm operations	\$70,065.27	\$37,515.60
Machinery and equipment	<u>4,227.10</u>	<u>9,559.01</u>
All farm operations	<u>\$74,292.37</u>	<u>\$47,074.61</u>
Excess income over expenditures	<u>\$32,363.63</u>	<u>\$52,688.06</u>
Balance on hand July 1		\$52,688.06

come is entirely from seed sales, as no appropriated funds are received.

Future Plans and Council Members

An additional warehouse and drying facilities are needed and it is planned to have these facilities available by the fall of 1970.

On July 16, 1969 the Agronomy Seed Farm Council met for its regular biennial meeting. Farmer members of this 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 1971.

Leon Peters, Jamestown
Jerome Nesvig, Buxton
Jack Wilkinson, Montpelier
Daryl Anderson, Reeder

Terms expiring in 1973.

Ed Manthei, Leonard
A. H. Berg, Wyndmere
William C. Witteman, Mohall
Joe Weiss, Belfield

Terms expiring in 1975.

Warren Rockenbach, Fort Clark
Arnold Skarsgard, Makoti
Herman Schmitz, Williston
Lyle Dawson, Jr., Fort Rice

Representing the North Dakota Crop Improvement Association

Jerome Holter, Hatton

Representing North Dakota Seed Trade Association

Willard Krueger, West Fargo

Commissioner of Agriculture and Labor

Arne Dahl, Bismarck

State Seed Commissioner

Everett Tool, Fargo

Extension Agronomist

Lars Jensen, Fargo

A local farmer

George Howe, Jr., Casselton

Chairman, Department of Agronomy

J. F. Carter, Fargo

Farm Employment in North Dakota

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tained by dividing the index of total volume, 170.9, by the index of the number of farm workers, 50.4, and multiplying the result by 100. That is, the sales volume per worker in 1968 was 339 per cent of that in 1950-52, which was more than a three-fold increase.

Table 3. Indexes of value, prices received and volume of marketings of farm products, and volume per farm worker.

Year	Indexes, 1950-52 = 100				
	Number of Workers	Value of Marketings	Prices Received	Volume Total	Volume Per Worker
1950-52	100.0	100.0	100.0	100.0	100.0
1953	95.2	88.1	93.5	94.2	98.9
1954	93.6	87.9	90.1	97.6	104.3
1955	88.0	96.1	87.5	109.8	124.8
1956	84.8	105.8	86.3	122.6	144.6
1957	80.0	103.8	84.0	123.6	154.5
1958	80.0	118.0	87.1	135.5	169.4
1959	75.2	108.4	84.4	128.4	170.7
1960	73.6	98.4	83.3	118.1	160.5
1961	69.6	95.3	86.7	110.0	158.0
1962	70.4	112.3	91.6	122.6	174.1
1963	66.4	125.2	86.3	145.1	218.5
1964	62.4	103.6	77.2	134.2	215.1
1965	60.0	127.8	78.7	162.3	270.5
1966	56.8	137.2	82.9	165.5	291.4
1967	52.0	135.7	81.7	166.1	319.4
1968	50.4	135.9	79.5	170.9	339.1

From The Director

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adversity, and the foresight and leadership of outstanding individuals who devoted their talents and lives to improving agriculture.

More than a hundred years ago our statesmen in the Congress laid the legislative groundwork for a continuing system of cooperative federal-state agricultural research and education which has survived many difficult times and has often been criticized by uninformed citizens. It is imperative for those who know of the use and benefits of agricultural research and education to be stalwart in their concern that the system which has assisted both the producer and the consumer so well be allowed to continue fulfilling that function.

American agriculture, the beneficiary of the land-grant system, has contributed mightily to the full growth of our economy and the development of mankind, and continues to do so. Now, fewer farmers are able to provide more people with the food and fiber they need at a lower cost in relation to their total income than has ever been possible.

Such a system warrants our united support.