

North Dakota State University * Dickinson Research Extension Center

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AGRONOMIC INVESTIGATIONS SUMMARIES OF RESEARCH

SCIENTIFIC CONFERENCES:

- Annual Conference of Branch Station Personnel - January 9-12, 1955, North Dakota Agricultural College
- S.S. and Extension Service Seminar at Mandant, North Dakota - January 26, 1955
- S.S. and Extension Service Seminar at Minor, North Dakota, February 3 and 4, 1955

CORRESPONDENCE:

- One hundred and four (104) letters concerning station work have been written since November 15, 1954.

PUBLIC MEETINGS:

	Attendance
New England Farm Institute - To discuss grain varieties	200
Golden Valley Farm Institute - To discuss grain varieties	75
Valley City Winter Show - To judge grain	---
Scranton Farmers Day - Panel on corn silage	125
Northern Plains Spring Exposition - To Judge grain	---
Mountrail County Farmers Tour - Corn silage discussion	53
New England Grade Tour - Tour of DES	20

Dickinson Garden club - To discuss soils	20
Taylor Public School 5th & 6th grade - Tour DES	25
DSTC Agriculture Class - Forage crop discussion	10
Federal Station Inspectors - Tour of DES	---
DSTC Teachers Conservation Class - Agronomy work at DES	40
Dickinson Lions Club - Tour of DES	61
Dickinson Rotary Club - Tour of DES	45
Annual Crops Field Day and 50th Anniversary	450
Slope Co. Grain Variety Demonstration Plots - Discuss Varieties	30
Hettinger Experiment Station Field Day	75
Kiwanis Club of Dickinson - Tour of DES	20
DSTC Biology Class - Agronomy work at DES	75
Livestock Research Roundup - Corn work at DES	800
Farmers Night, Hazen, North Dakota - Grain varieties	45
Hettinger County Crop Improvement Assn. - Attended	200

PUBLICATIONS:

- Conlon, Thomas J. & Douglas, R. J. Spring plowing is better than disking. Bimonthly Bulletin Vol XVII No. 2 November-December 1954.
- Conlon, Thomas J. & Douglas, R. J. Best time for first tillage of fallow in Southwestern North Dakota Bimonthly Bulletin Vol. XVII No. 3 Jan-Feb 1955.

- Conlon, Thomas J. & Douglas, R. J. No winter wheat now available can succeed in the Dickinson area. Bimonthly Bulletin Vol. XVIII No. 1 Sept-Oct 1955.

RADIO DISCUSSION WITH COUNTY AGENT:

November	Corn for Southwestern North Dakota
December	Corn for the Northwest
January	Grain varieties for southwestern No. Dak.
February	Oat variety trials at DES
February	Performance of Durum wheat at DES
March	Continuation of discussion on grain varieties
April	Winter wheat in North Dakota
May	Chemical weed control
June	Crops Field Day
July	General crop conditions
August	Results of 1955 variety trials at DES
October	Roughage & Corn spacing trials at DES

TV PROGRAMS:

- "Corn silage for fattening beef" at Fargo and Bismarck in March 1955.

ABSTRACTS OF RESEARCH IN AGRONOMIC INVESTIGATIONS - 1955 THOMAS J. CONLON

ROTATION AND TILLAGE TRIALS - 1955

Yields in the 1955 Rotation and Tillage experiments followed rather closely the pattern of the 45-year average as reported in North Dakota Agricultural Experiment Station Bulletin 383.

In a new tillage trial comparing production on stubble land worked with the one-way disk, the double disk and the moldboard plow, production on the moldboard plowed land was 34% better than on double disked land and 20% better than on land worked with the one-way disk.

FERTILIZER TRIALS - 1955

A fertilizer trial to determine effects of phosphating small grain upon the moisture content of the soil profile was conducted in cooperation with the Soils Department, North Dakota Agricultural College.

In the new continuous commercial fertilizer trials begun on Series 8 of the Main Rotation Field this year wheat yields on cornland fertilized with 125 lbs. per acre of 16-20-0 were 6.2 bushels higher than yields from the unfertilized check plots. However, silage yields from corn plots fertilized at a rate of 100 lbs. per acre with 8-32-0 commercial fertilizer applied in the drill row were no better than silage yields from unfertilized plots.

ROUGHAGE TRIAL - 1955

This year yields from the sorghum and sudan grass varieties were particularly disappointing, none producing enough to be considered worth harvesting. The best yielding crop in 1955 as in previous years is corn. The adapted hybrids and open pollinated varieties have consistently produced satisfactorily high yields. For quantity production of good quality feed corn is the best silage crop for this southwestern North Dakota area.

BARLEY TRIALS - 1955

Barley yields were excellent in this area this year, being higher than for any year in the past decade except 1948. The five top yielders in the 1955 variety trial were: Husky, Kindred x Titan (B103), Tregal, Titan and Hannchen.

Dekap, a newly introduced variety from Transcaucasia, was top yielder in the Uniform Great Plains Barley Nursery at Dickinson this year, averaging nearly 10.0 bushels per acre more than the second highest yielding entry, a Trebix x Spartan cross CI 10003.

CORN TRIALS - 1955

Yields in the 1955 corn trials at Dickinson were poor because of droughty July and August growing weather. Average silage yields in the corn silage production trial ranged from about four to six tons per acre.

Yields were poor and variations between treatments were rather wide in the rate of planting trial with corn. From two years results it would seem that the 12 to 18 inch spacing in the drill row would be the most satisfactory. planting rate of four of the rates under test.

FLAX TRIALS - 1955

Yields were fairly good in this years Flax Varietal Trial with Dakota, Linda, Marine and Bison all yielding seven bushels or more per acre. Dry weather in July reduced the potential flax yield and was favorable for weed growth which also aided in reducing the final crop yield. Yields in the weed free nursery trials were more than double those from the field plot trials.

OAT TRIALS - 1955

Yields in this years' oat variety trial at Dickinson were higher than for any year since 1948. Highest yielding variety was Gopher which averaged 78.8 bushels per acre followed by Branch at 77.8 bushels per acre. Lowest yield was from Andrew with an average of 57.4 bushels per acre.

Some oat stem rust was present again this year and depressed yields some, especially the yields of Palomino and Clarion, the two varieties that carried the heaviest infection.

WINTER RYE TRIALS - 1955

High yields were recorded for the winter rye varieties in this years' trial, with Emerald, Dakold and Caribou making up the top yielding group, followed by the White Soviet and Pierre. The poorest yielding variety in the trial has been Tetra Petkus, producing only about half as much as the varieties in the high yielding group this year.

WINTER WHEAT TRIALS - 1955

A summary of thirty years of trials with winter wheat at the Dickinson Experiment Station was published in Vol. XVIII No. 1 of the North Dakota Agricultural Experiment Station Bimonthly Bulletin, the September-October issue for 1955.

Three separate trials with winter wheat were seeded at Dickinson in 1955. Winterkilling was heavy, averaging virtually 100% in all three trials.

HARD SPRING WHEAT TRIALS - 1955

Stem rust was not a serious problem in southwestern North Dakota in 1955, and this fact plus favorable planting weather in April and ample rainfall in June combined to produce excellent wheat yields. N.D. 8, N. D. 25 and N.D. 3 were high yielders in the variety trial with respective averages of 33.4, 30.6 and 28.9 bushels per acre. Lee, Selkirk and Mida all averaged approximately 28.5 bushels per acre.

Promising new material in the nursery trials includes: strains from the cross between Thatcher and Kenya Farmer and four strains in the Dickinson Station F - 5 nursery which produced over 35.0 bushels per acre.

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