

1962 ANNUAL REPORT

BY RAYMOND J. DOUGLAS, SUPERINTENDENT

The importance of the work at the Dickinson Experiment Station is ever increasing. Despite the good crop in 1962 the need for a good income again in 1963 is exceedingly important because of the back log of debits and the increased cost of production. Our efforts in pointing the way towards a balanced agriculture are becoming more important each year, because only with a balanced operation will we have a steady income each year. This type of operation even in a year when precipitation is below normal will give us a good income.

Not only do we need to use the best methods and practices in the handling of the operating unit, but the planning of the North Dakota farmer or rancher must be such that each enterprise developed will be organized to live permanently with the conditions and circumstances under which we operate. This thinking and organization must carry through our Conservation practices, crops and livestock enterprises. There is no substitute for using the best methods and practices adapted to each individual farm or ranch. This means that the best Conservation practices, varieties of grain and livestock selection and handling should be with an eye to the needs of each farm or ranch.

Feeding out cattle and hogs for market must be built around homegrown feeds adapted to the unit, properly supplemented. Economy of operation should never be overlooked; every dollar saved is the same as having earned an extra dollar, and the days of earning the easy dollar in Agriculture are gone, perhaps forever.

Our job at the Dickinson Experiment Station is to improve the farm income by recommending the best methods, practices, varieties of grain, breeds and types of livestock for the job that is to be done. If a well-established practice or variety has been proved to be the best, we should stay with that as a recommendation, with changes only being recommended when we know that the proper switch will excel those now being used, in a manner that will enhance our farm or ranch income.

Our greatest consideration should be directed towards improvement in the following:

1. Soil conservation.
2. Cropping practices and rotations.
3. Best yielding varieties of small grain.
4. New crops and crop varieties.
5. Grass and legumes varieties of maximum productive value to the area.

6. A program using the best methods of feeding out calves and hogs to slaughter condition.
7. Economy of operation in every phase of a balanced agriculture.

IMPROVING THE DICKINSON EXPERIMENT STATION

In a changing agriculture our Station must be kept up to date, and having the appearance of a well-kept unit. This requires expansion and improvements in many phases of our plant.

The items listed in paragraphs I to V will give a general over-all picture of our needs as we look into the future.

I. LAND

The new Highway 94 will be constructed during 1963. This will take about 60-70 acres of our best land out of production. This land should be replaced since our acreage is small even for our operation as it is at the present time, before these acres are removed. The attached map shows where the new Highway will be located according to the latest information - this is subject to change at any time up until the concrete has actually been poured. This expansion of the Highway across the Dickinson Experiment Station is a bad situation, but progress which to us, is an evil we must live with. We are being given a cattle pass, where the red check is, on the City Spur road. This installation, will connect the division being made in our pasture by the City Spur.

We have a projected plan for increasing the size of Pyramid Park to give us additional grazing acreage in the Badlands. Most of this land must be secured from the Forest Service, and we hope will be realized in the not too distant future.

We hope that this can be worked out, through a cooperative project with the Forest Service, with the Station receiving the land when the project has been completed. There is one piece of privately-owned land that would fit into our grazing area if it could be purchased. We need approximately three quarters or 480 acres in addition to our present grazing area. This increase in acreage is essential for the management of our herd in the Badlands under range conditions. While at the present time, we are grazing one-third of our cow herd at the Dickinson Experiment Station headquarters each summer, it would be desirable to graze the whole herd, in the Badlands from about June 15 to October 15 in three separate pastures. Our present summer range in the Badlands has only sufficient acreage for grazing two-thirds of our herd in two separate pastures.

II. IMPROVEMENTS

During 1962 we completed the following projects:

1. All buildings and lots at the Livestock Farm were painted.

2. Leveled and improved rotation and tillage plots on the Agronomy Farm.
3. Dug the basement and put in cement walls for a new Grass and Legume Laboratory, 18 feet by 26 feet. This building will have 8-foot posts, lap siding, hardwood floor, and lined on the inside. It will include the drying ovens, wash room, shower and pitched cement floor in the basement with drain for washing samples, etc. The old drying house is to be sold or razed and the material used in this building.
4. The seed house has been moved to a new site adjacent to the elevator and put on a cement foundation over a full basement. We are installing a drying bin of about 550-bushel capacity, an elevator leg, elevator pit, hardwood floor and office. The main part of the room will be used for a cleaning and storage room. This is one of our most worthwhile improvements of the current year.
5. The feed house was re-located adjacent to the chicken house with a good concrete floor and drain being added.
6. Replaced most of the woven wire in the hog fences on the livestock farm, except those replaced since 1960.
7. Constructed two additional units onto our pig parlor for dry-lot feeding in confinement.
8. Improved and enlarged the cess pool in connection with the pig parlor.
9. Partially leveled the lawn and yard at the Livestock Farm. This job must be completed in 1963, with the lawn being re-seeded.
10. Included about 10 acres more in our grazing land at Pyramid Park by extending the South fence along our line. Removed the old wire from the fence lines not in use, because of the fence re-location. The posts were not removed as yet; this is to be done in 1963.
11. Painted the buildings at Pyramid Park.
12. Ten new hog houses were built in 1962-this gives us 20 small unit hog houses at the Dickinson Experiment Station.

III. IMPROVEMENTS

Improvements to be made in 1963.

1. Paint all buildings on the Agronomy Farm.
2. Replace spruce, fruit and broadleaf trees lost prior to 1963 at both farms.
3. Construct new entrance to root cellar, this was scheduled for 1962 but not completed due to the other jobs with priority rating.
4. Repair fence for one-half mile on Agronomy Farm, along South side of S. E. 1/4 Section 32. This project was delayed from 1962.
5. Build another machine shed on the Agronomy Farm, with funds to come from Station sales.
6. Continue to work on renovation of shelter belts on both farms. This project while in progress has moved slowly.
7. Re-locate fuel tanks on Livestock Farm.
8. Install over-head doors in the South entrance of machine shed at the Livestock Farm.
9. Construct a bunker silo, and remove old cement silos if time permits.
10. Level the yard and re-seed lawn at the Livestock Farm.
11. Re-locate the line fence on the East side of Pyramid Park-this will include four more acres in our grazing area.
12. Remove all old posts not needed because of the new fence lines constructed at Pyramid Park.
13. Sealing the inside walls of the cabin at Pyramid Park with mouse-proof composition board. Build new step at entrance to cabin.

14. Add two more units or lots to our dry-lot pig parlor, for use in 1963.

15. Improve the present sewage and drainage system in use at the pig parlor.

IV. MODEL PROJECTS

Our poultry flock with the new facilities completed in 1961 was more easily handled in 1962. It is our opinion that the project is in line with the size of flock and facilities a farmer or rancher should have if he keeps a flock of chickens.

The model garden was reduced in size and better handled in 1962 than in previous years. This is a worthwhile project and can still be improved.

V. INFORMATION

Our program is developed more each year to acquaint farmers and ranchers with the work we are doing at the Dickinson Experiment Station. The best information we have is released in news articles, publications, tours, classes, field days, and meetings.

Completed projects are published in the North Dakota Farm Research monthly bulletin. Seventeen hundred copies of the Livestock Research Report were prepared with about 1600 being distributed at the Roundup on December 5, 1962.

WEATHER RECORDS AT THE DICKINSON EXPERIMENT STATION INCLUDE:

Month	1962	Accum.	1892 - 1962		Accumulative Average	Last 10 Years		
			Summary*	Average		Year	April-July	Annual
Jan.	.34	.34	31.08	.44	.44	1953	13.44	19.39
Feb.	.15	.49	31.18	.44	.88	1954	5.59	16.33
March	.99	1.48	53.17	.75	1.63	1955	10.14	14.65
April	1.12	2.60	88.65	1.25	2.88	1956	7.30	12.70
May	6.18	8.78	159.51	2.25	5.13	1957	14.76	22.15
June	2.07	10.85	245.90	3.46	8.59	1958	8.14	12.18
July	3.22	14.07	154.44	2.18	10.77	1959	6.15	13.45
Aug.	2.52	16.59	126.99	1.79	12.56	1960	6.22	10.23

Sept.	.75	17.34	86.04	1.21	13.77	1961	7.81	13.90
Oct.	.55	17.89	59.86	.84	14.61	1962	12.59	18.34
Nov.	.28	18.17	38.17	.54	15.15	1941**	21.20	31.16
Dec.	.17	18.34	28.16	.40	15.55	1936***	2.03	6.72

71-Year Average Precipitation = 15.55
71-Year Average Precipitation, April-July = 9.13
*Total Precipitation in inches per month for 71 years
**Greatest of Record
***Least of Record
1962 - Greatest 24-hour Precipitation, July 3, 1.30 inches

General Information					
Latest Killing Frost in Spring			Earliest Killing Frost in Fall		
1915	June 16	30° F	1917	Aug. 9	30° F
1962	May 1	26° F	1962	Sept. 10 Oct. 23	30° F 22° F
Frost-Free Season		Shortest of Record		Longest of Record	
1962	175 days	1915-1917	69 days	1962	175 days
Lowest of Record			Highest of Record		
1936	Feb. 16	-47° F	1936	July 6	114° F
1962	Feb. 28	-42° F	1962	Aug. 22	96° F

1. Maximum, minimum and 7:00 a.m. temperature reading each day.
2. Wind velocity over each 24-hour period.
3. Free surface evaporation, April 1 to October 1 each year.
4. Daily precipitation.
5. Snow fall and depth of snow on ground each day.
6. A thermograph record of the daily temperature changes as they occur each day along with the soil temperature at a depth of 8

inches.

VI. BEEF CATTLE PROGRAM

Improving the Beef Breeding Herd.

1. The following bulls are being used at the Dickinson Experiment Station:
 - a. AP Zato Heir 64 Number 10,620,922; Calved February 1, 1959; Bred by A. W. Powell, Sisseton, South Dakota
 - b. TTT Lodge Heir 3 Number 11,643,726; Calved April 3, 1961; Bred by Thor Tagestad, Towner, North Dakota
 - c. TTT Anxiety Number 11,643,725; Calved April 3, 1961; Bred by Thor Tagestad, Towner, North Dakota
 - d. AP Zato Heir 18 Number 9,359,270; Calved May 22, 1956; Calves bred by A. W. Powell, Sisseton, South Dakota
 - e. DGH Rupert Aster Number 10,148,644; Calved October 13, 1957; Calves bred by Turner Ranch, Sulphur, Oklahoma
 - f. Husky Pioneer 263 Number 12,332,508; Calved April 3, 1962; Bred by Tony Stroh, Killdeer, North Dakota

The bulls should improve the gaining ability, type, quality, conformation and thickness of the replacement heifers and the feeder calves used in our trials.

2. The cow herd is culled throughout the year with as many undesirable animals as possible being removed so that including the replacement heifer we maintain a herd of about 100 breeding cows.
3. Culling is done on the following basis:
 - a. Age
 - b. Defects; lump jaw, cancer eye, bad feet, etc.
 - c. Temperament
 - d. Weight of calf at weaning

e. Dry cows

4. The cow herd is fed about 22 pounds of a mixture of tame hay, crested wheatgrass, and oats up to about January 1, after which the hay is reduced the straw removed, and corn silage added to the ration. Some ground barley about 2 pounds per head per day is fed beginning about February 1 or approximately two months before calving.
5. The heifers going back into the herd are selected from the top half by weight of the current year's heifer calf crop. Selection from this group is made on the basis of type, quality, thickness and breed character.
6. Each fall a bull calf is added to the herd; if he develops in a satisfactory manner, he will be used to breed the replacement heifers, going into the herd as long yearlings.

We have added a Husky Pioneer bull to our herd this fall-it is hoped that he will aid in getting heavier calves at weaning, of improved type and with better gaining ability than we have had up to the present time. Husky Pioneer 263 was calved April 3, 1961 and on December 1 at weaning weighed 525 pounds, is thick of excellent type. We are striving for herd improvement along the lines indicated, which, by improving our herd sires, we believe can be accomplished.

Feeding Trials. Our program is geared to develop a feeding program in North Dakota that will live over the years and be a stable enterprise. To do this, the ration must be built around home-grown feed properly supplemented. Probably the best ration for the majority of our feeders will be a roughage ration with grain added in the amount desired by each feeder. Each feeder should aim towards marketing his animals whenever marketing best fits his program of work and will give him the greatest possible income. Feeding beef cattle has the greatest potential of any Agricultural enterprise presently being developed in North Dakota.

Our experimental work is built around getting sound answers to the following problems:

1. Best ration for calves roughed through the winter followed by one of the following:
 - a. Dry lot fattening following the wintering period.
 - b. Spring and summer grazing following winter feeding period with finishing in dry lot starting in early fall.
2. Feeding steers and heifers in dry lot from weaning until finished to determine the following:
 - a. Value of stilbestrol implants in steers and heifers.

b. Rations to give maximum gains at lowest possible cost until animals are ready for slaughter.

c. High roughage rations for calves with:

1. Creep feeding of calves.
2. Limited grain through entire feeding period.
3. Grain being increased after animals weigh from 450-500 to such rations as 50 per cent roughage and 50 per cent grain; 80 per cent grain and 20 per cent roughage; 90 per cent grain and 10 per cent roughage.
4. Testing new additives showing promise.
5. Varying amounts of stilbestrol for implants.
6. Full feeding grain.
7. Self-feeding grain.
8. Adding vitamins to ration.
9. Late maturing corn with corn varieties such as 85-87 day which recommend for the area.

VII. SWINE PROGRAM

Purebred Yorkshire

1. Improving Yorkshire type and gaining ability by using the best boars available from lines being tested with sows and gilts selected for gaining ability, meat type and quality.

Crosses for Increasing Gains and Short Finishing Periods.

1. Our fall pig crop will be, in 1963, about half crosses using a good type Hampshire boar on our sows, to give us a better picture of increased gaining ability for more pounds over the scale at an earlier date.

2. The following boars are being used at the Dickinson Experiment Station:

a. DDTO Toastmaster 297; Farrowed March 6, 1960; Bred by Donald Trapp, Claremont, Minnesota

b. Sunny Crest Model 301; Farrowed April 18, 1962; Sire: CJP1 Coopersdale, M Image 12 304696 CL PR CMS; Dam: Sunnycrest Bess 35N 233644 PR; Pigs born - 14, Weaned - 12; Bred by Keith Thurston, Madelia, Minnesota

c. Sunny Crest Field Marshall 341; Farrowed April 28, 1962; Born - 14, Raised - 11; Sire: Oakvale Field Marshall 61N 218075; Dam: KWTO Sunny Crest Bess 3 278620; Bred by Keith Thurston, Madelia, Minnesota

d. Hampshire Boar; Farrowed April, 1963; Bred by Gietzen Brothers, Glen Ullin, North Dak.

Feeding Trials

1. Winter wheat seeded in the spring is used as a pasture crop. Other crops showing possibilities will be tested when available.
2. Dry-lot feeding with concrete floors are being compared to grazing pigs on pasture.
3. Balanced ration fed in dry lot compared to rations fed on pasture without a protein supplement.
4. Winter rations using such supplements such as, dried milk, tankage, blood meal and soybean oilmeal, etc.
5. New rations and new supplements.
6. Different types of rations for sows and gilts during the pregnancy period.
7. New methods of cleaning and new types of disinfectants in preparing quarters for farrowing.
8. All pigs are vaccinated at 8 and 12 weeks for erysipelas, gilts are vaccinated again at about six months of age, and before farrowing. This program appears to be reducing the number animals lost during trials, as gilts and older sows.

9. Injectable iron is given all pigs from three to seven days of age.
10. Economy of operation is being considered in all phases of hog production.
11. Farrowing pen construction, litter, used in farrowing pens and improved methods of handling swine are being studied each year.
12. Rations for pregnant sows, erysipelas control, sanitation and management, are all being studied to reduce the loss of pigs between farrowing and weaning.

VIII. GRASS AND LEGUME INVESTIGATIONS

Grasses and legumes for both Hay and Pasture

1. New varieties of both grasses and legumes.
2. Best method of handling for quantity and quality production, with prime consideration being given to winter hardiness, with:
 - a. Grasses alone.
 - b. Grass mixtures.
 - c. Grass and legume mixtures.
 - d. Fertilization of grasses.
 - e. Renovation of grasses and legumes.
 - f. Protein content of :
 - aa. Grass alone
 - bb. Grass fertilized
 - cc. Grass and legume mixtures

dd. Nitrate content of fertilized and unfertilized grasses

3. The legume research includes low-coumarin yielding varieties of sweet clover.
4. In the pasture research, studies are being conducted with early spring grazing trials using crested wheatgrass.
5. Trials are being set up to study the value of delayed grazing using crested wheatgrass.
6. Plans are in progress to conduct trials with grasses and grass and legume mixtures for summer grazing. The summer grasses to be studied in this project are Russian wildrye, and Lincoln brome, both with and without alfalfa. Our research has been centered around Ladak alfalfa as being the best for our area. Studies with Teton alfalfa for grazing should be expanded in the future.

IX. AGRONOMY PROGRAM

Tillage Practices

1. Spring plowing as compared to fall plowing.
2. Tillage practices on small grain stubble.
 - a. Spring Plowing
 - b. Fall plowing and other types of fall tillage
 - c. One-waying or double disking in the spring
 - d. Disking and mold board plowing of corn land for small grain

Crop Rotations Most Effective for Western North Dakota

1. Alternate cropping

2. Continuous cropping
3. Three-year rotations comparing corn and fallow
4. Four-year rotations with a green manure crop

Below is a list of the small grain, of which different varieties are being compared for the area:

1. Spring wheat
2. Oats
3. Barley
4. Winter wheat
5. Winter rye
6. Durum wheat

D. Miscellaneous Crop Varieties Being Tested for the Area

1. Flax
2. Safflower
3. Mustard

E. Roughage Crops Being Tested for the Area

1. Open pollinated corn varieties
2. Corn hybrids recommended for the area 85-87 day
3. Late maturing or 120-day hybrids
4. Sudan
5. Sorghum
6. Sugar cane

F. Spring moisture in the soil determined on small grain acreage of the previous year handled by one of the following methods:

1. Standing stubble
2. Stubble one-wayed in fall
3. Tillage with wide blade in fall

Due to the fact that we have the information needed presently for this trial, it is not being continued in 1963.

Small grain nursery using new varieties just developed or those new to the area when only limited amounts of seed are available.

1. To determine their value in the West River area of North Dakota.

Wheat Breeding Program

1. Several new crosses are made each year which are tested for:
 - a. Yield
 - b. Quality
 - c. Test weight
 - d. Resistance to rust
 - e. Resistance to disease
 - f. Comparing, maturity date, strength of straw, ease of shattering, etc.

Use of Fertilizer

1. With small grain crops on:
 - a. Fallow
 - b. Corn land
 - c. Stubble land
 - d. Residual effect year following application of fertilizer
2. In corn production
 - a. Proper placement at time of planting
 - b. Different methods of application before and following planting.

c. Residual effect on crop planted the following year

Weed Control. This is one of our greatest problems and the search is constantly on for new and better methods of weed control which include:

1. Chemical sprays
2. Chemical sterilization of the soil
3. Improved handling or tillage of fallow
4. Cultivation using various sizes of cultivator shovels

X. GENERAL FARMING OPERATIONS

Feed on hand December 31, 1962:	
450 tons of hay @ \$20.00	\$9,000.00
100 tons of straw @ \$7.00	700.00
3000 tons of silage @ \$7.24	21,720.00
9000 bushels of barley @ \$.70	6,750.00
4000 bushels of oats @ \$.50	2,000.00

XI. EQUIPMENT

- 1 - John Deere D. Tractor 1939 Model
- 1 - Howard Rotovator and Gear Reducer for Cub Tractor
- 1 - Fertilizer Spreader
- 1 - 350-gallon used Butane tank
- 1 - used furnace
- 1 - 4 ft. S & H PTO Shaft complete

- 14 - garbage cans
- 1 - Motor for pressure pump
- 1 - 24-ft. ball muffer elevator
- 1 - Mist green file cabinet No. 104
- 1 - Everhot fan
- 1 - 3L - 3" open discharge pump
- 2 - #14 John Deere Rotary hoe sections
- 1 - 12 ft. John Deere pull-type windrower
- 1 - #851 John Deere Rake w/hand lift crank w/hose support bundle w/pipe center
- 1 - John Deere rotary hoe w/hitch, w/pipe center
- 1 - R-12-73 bolder 2-horse single phase electric motor
- 1 - Chicken brooder
- 1 - Air compressor
- 1 - 1950 John Deere Model A. Tractor

XII. LIVESTOCK

- 500 - White Plymouth Rock Special Mated Straight Run Chickens
- 20 - Light yearling steers and heifers
- 25 - Head of steer and heifer calves

1 - Purebred Hampshire Boar

2 - Purebred Yorkshire Boars

1 - Hereford Bull Calf

MEETINGS AND TOURS

Date	Meetings	Attendance
Jan. 8-11	Annual Experiment Station Conference	
Jan. 17	Turtle Lake area farmers and P.T.A. "Russian Agriculture"	225
Jan. 24	Emmons Co. Agric. Imp. Ass'n. "Improving our Agriculture"	152
Jan. 24	Streeter Agric. Imp. Ass'n. "Wintering Beef Cows"	175
Feb. 8	Golden Valley Co. Feeder Tour "Hog Production in Western ND."	125
Feb. 13	Hettinger Branch Station Sheep Day	
Feb. 20	Bottineau Co. Agric. Imp. Ass'n. "Raising Beef Cattle in N.D."	200
March 1	Wing, North Dakota "Improved Grazing and Forage Production"	125
March 2	Wing, North Dakota "Factors Affecting Gainability of Feeding Cattle"	200
March 14	President Albrecht, Tour of Station	
March 14	Directors, Hazen and Schulz, Tour of Station	
March 16	Ward Co. Agric. Improvement Ass'n. "Improved Grazing and Feeding"	150
March 16	Kenmare Farmer's Institute "Improved Grazing and Feeding"	250
March 19	Stutsman Co. Agric. Improvement Ass'n. "Better Pastures and Roughage"	125
March 24	New England FFA "Russian Agriculture"	130
April 9	Devils Lake "Improving Our Livestock"	150
April 27	Dr. William E. Dinusson, Visited Station to help plan spring trials	
May 25	Dr. Shermister, Mint trials started	
June 12	North Dakota Stockmen's Convention, Bismarck	

June 13	Grassland Field Day, Mandan	
June 15	District Judging work-out	72
June 17	REA Picnic and Tour to Microclimate Project	46
June 26	Lions Club, Tour of Station	61
July 18	Annual Crops Field Day	150
July 18	Irish Wheat Trade Team	6
July 23	DSTC Class in Agriculture	16
July 24	Herford Breeders Stark and Dunn Counties	21
July 25	SW District 4-H Judging Contest	60
July 27	Dean Hazen visited Station	
August	No Meetings	
Sept. 5	Chamber of Commerce, Soil Judging Contest	10
Sept. 11	Belfield 4-H Show, Judge Livestock	200
Sept. 11	Dr. Dinnusson, Discussed livestock projects	
Sept. 26	Extension Livestock Meeting, Panel discussion	200
Oct. 1	Hereford Tour, Stark and Dunn Counties	150
Oct. 17	SCS District Meeting, Southwest area	75
Oct. 25	State Mill and Elevator "Fertilizer"	20
Oct. 25	Decker Implement Co., Haapala Corn Meeting	98
Oct. 27	SCS Meeting, Awards Banquet	78
Oct. 30	Gro-Green Meeting "Fertilizer"	6
Oct. 31	Slope Seed and Grain Meeting "Seed and Fertilizer"	120
Oct. 31	Chamber of Commerce Meeting, Agriculture Committee	8
Nov. 7	Farmers Rotary Program "New Developments in Agriculture"	131
Nov. 17	4-H Achievement Banquet "Award for Station"	500
Nov. 19	Lyle Witham Sale "Place of Beef Cattle in North Dakota"	300
Nov. 27	Chamber of Commerce Meeting "Livestock Research Roundup"	14

Nov. 30	Dow Chemical Co. Representative	
Dec. 3	Greater North Dakota Ass'n. "Developing Our Agriculture"	25
Dec. 5	Thirteenth Annual Livestock Research Roundup	1100
Dec. 10-14	Branch Station Conference	

RADIO

Date	Programs
January 4, 1962	Our Weather During 1961
January 25, 1962	Best Use of Grass
February 15, 1962	Plan your Roughage Crops Early
March 8, 1962	Pastures and Grazing
March 29, 1962	Seeding for Early Spring Grazing
April 19, 1962	Pasturing or Grazing Cattle to be Marketed
May 10, 1962	Growing Out Spring Pigs
May 31, 1962	1962 Grazing Trials
July 5, 1962	Dickinson Experiment Station Crops Day
August 2, 1962	Prepare for Corn Harvest
August 30, 1962	Start Fall Feeding Early
September 6, 1962	Feeding of Sorghum and Sudan
October 18, 1962	Fall Tillage
November 8, 1962	Livestock Research Roundup
November 29, 1962	Program for the Livestock Research Roundup
December 20, 1962	Stilbestrol as Implants for Steers and Market Heifers

PUBLICATIONS

November-December, 1962, North Dakota Farm Research Vol. 22 No. 8, Effect of First Winter Feed on Later Gains, Raymond J. Douglas, Larkin H. Langford, M. L. Buchanan

GENERAL SUMMARY

	Farm Visits	No. Tours	Attendance At Meetings and Tours	Meetings Attended	Station Calls	Radio Talks	News Articles
January	0	0	552	4	8	2	0
February	0	1	325	3	8	1	0
March	0	2	980	6	8	2	0
April	1	0	150	1	10	1	0
May	0	0	0	0	8	2	0
June	1	2	179	3	7	0	0
July	0	0	253	5	10	1	0
August	1	0	0	0	10	2	0
September	0	0	410	4	12	1	0
October	8	1	555	7	8	1	0
November	0	0	945	5	10	2	0
December	0	0	1125	3	12	1	0
Total	11	6	5474	41	111	16	0