

Farm Research

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From the Director

A. G. Hazen

The North Dakota Legislative Council is responsible for many activities of state government being carried on smoothly between Legislative Assembly sessions. Elected membership of the Legislative Council consists of seven members of the Senate and eight members of the House. This group of 15 bipartisan legislators elects its chairman from its own membership and is assisted by the salaried personnel of the Legislative Council offices located in the State Capitol. Representative Bryce Streibel, Fessenden, is the current chairman of the Legislative Council and Mr. C. Emerson Murry is the director of the Legislative Council office personnel.

One of the assignments to the Legislative Council made by the 1973 Legislature was Senate Concurrent Resolution No. 4021 providing for a study "... of the functions, responsibilities, and operations of the Extension Division and the Experiment Stations of the North Dakota State University of Agriculture and Applied Science." The Legislative Council in turn assigned this responsibility to Budget Committee "B", one of the committees of the Council.

Budget Committee "B" is one of three similar Budget Committees of the Council, all of them having membership primarily from the Senate and House Appropriations Committees. Membership of Budget "B" consists of Senator Robert Melland, Chairman; Senators Walter Erdman, Robert Nasset, Clarence Schultz, Theron Strinden, Russell Thane and Frank Wenstrom; and Representatives Charles Fleming, Layton Freborg, LeRoy Hausauer, Harley Kingsbury, Jack Olin, Olaf Opedahl and Enoch Thorsgard.

Budget Committee "B" held six meetings between April, 1973 and November, 1974 in discharge of the assignment and responsibilities of Resolution 4021. Two of these meetings were held on the NDSU campus. During these meetings, intensive study was made of the history, organization, goals, funding, size, accomplishments and other aspects of the Agricultural Experiment Station and the Cooperative Extension Service. During one of the early meetings, various individuals and organizations in North Dakota were invited

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On The Cover: Dawn Hamlin, data processing analyst, traces lines on a map with a stylus which transfers coordinates to a punched tape for computer analysis and for reproducing the maps on a computer plotter. This is a part of the Resource Inventory and Monitoring System (RIMS), a pilot project in the Agricultural Experiment Station.

(Photo by Jim Berg)

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Table 13. Summary of the Adjusted Performance of Early-Weaned Pigs Fed Barley Using the 20 Per Cent Barley Level as a Comparison.¹

Barley Level (Per Cent)				
0	20	30	40	60
88	100	101	96	97
95	100	98	104	101
107	100	96	107	104
0.45	0.51	0.51	0.49	0.50
0.93	0.98	0.96	0.94	0.99
2.09	1.95	1.87	2.09	2.03
	88 95 107 0.45 0.93	88 100 95 100 107 100 0.45 0.51 0.93 0.98	88 100 101 95 100 98 107 100 96 0.45 0.51 0.51 0.93 0.98 0.96	88 100 101 96 95 100 98 104 107 100 96 107 0.45 0.51 0.51 0.49 0.93 0.98 0.96 0.94

Calculated by taking ADG, ADF and feed/lb. gain values and using the following formula: 0, 40 or 60% barley

 $\frac{30\% \text{ barley}}{20\% \text{ barley}}$ X 100 = % of 20% barley level.

Once the average percentages for each ration were obtained, these percentages were multiplied times the average performance values for the 20 per cent barley level (i.e., $0.51 \times 88\% = 0.45$).

would be dusty and not as palatable. Further, lower quality barley would have higher fiber levels, which might affect pig performance.

Summary

- Use of up to 60 per cent barley in pelleted rations for early-weaned pigs did not adversely affect pig performance.
- 2. Adding 5 per cent fat to barley rations did not prove to be economical.
- Simplifying the ration formula by reducing or omitting dried skim milk, fish meal and oat groats and adding soybean oil meal plus lysine and methionine is suggested when ingredient prices warrant.

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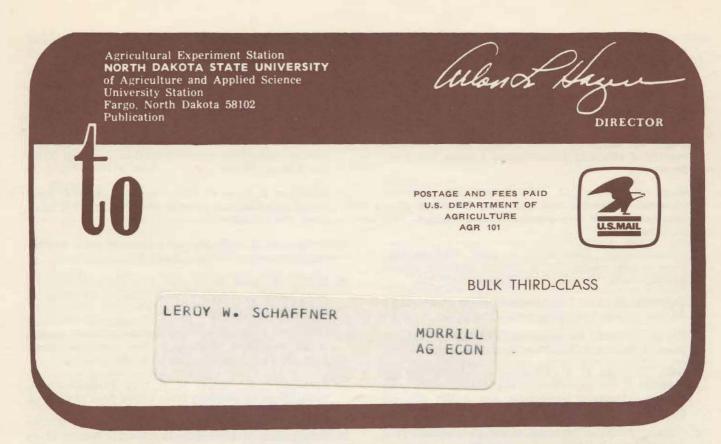
to present their evaluation of the Station and Extension programs. At a larger meeting several state government units were also invited to make presentations to the Committee on their respective relationships between their units and the Station and Extension programs. The study also included consideration of a report and recommendations from a private auditing firm which examined North Dakota State University with particular emphasis on the Agricultural Experiment Station and the Cooperative Extension Service. Extensive materials were prepared and submitted to the Committee by Station and Extension personnel, and these materials were discussed in detail during meetings of the Committee.

Legislative Council Budget Committee "B" will conclude the study with a written report to the Legislative Council. This report will be useful to members of the Legislature in the sub-

sequent considerations for support of the Agricultural Experiment Station and the Cooperative Extension Service.

Budget Committee "B" is to be commended for the manner in which the study was conducted. The meetings provided an opportunity for many interested and concerned persons and organizations to present themselves to key legislators and to express their viewpoints. Attendance at each meeting of the Committee by its membership was excellent, providing an opportunity for each of them to become much better informed about the Agricultural Experiment Station and Cooperative Extension Service as integral parts of North Dakota State University. And many Station and Extension personnel were granted the privilege of communicating directly with the committee members.

This study has already been mutually worthwhile for those who participated in it, and will also undoubtedly be fruitful in the future.



The North Dakota Resources Inventory, Information Management and Monitoring System.

Comprehensive land use planning and good resource management requires immediate access to many types of reliable information. A computerized data system will allow users to manipulate and analyze large volumes of resource information in their planning and management roles.

Development of a computerized information system will:

- Allow better information flow by providing immediate access to current and accurate information to solve detailed and complicated problems.
- Permit better scientific management of North Dakota resources by providing information for predictive estimates to "what if" questions.
- 3. Help the many individual users gain access to greater computing power than would be available to any one user.
- 4. Save time and money by allowing many people immediate access to expensively obtained data and eliminate duplication of expensive equipment.
- 5. Allow rapid examination of different kinds of information on television type terminals and the selective printing of needed information.

Information currently available in the North Dakota Agricultural Experiment Station will be the first data entered into the data bank. This will include climatological data, soils information from both published and unpublished data, census data, land use, crop and livestock statistics, transportation systems, historical sites, cultural features, government and critical environmental areas.

RIMS consists of a set of techniques for recording, storing, processing, recalling and displaying information from a resource inventory. Recording involves the transformation of data from maps and tables to a form acceptable for storage. One method of obtaining information from maps is by a machine called a digitizer (front cover). The digitizer converts lines on maps to numbers and records the line locations on paper tape.

Long range goal of RIMS is to provide as complete an inventory as possible of information useful to resource decision makers. Additional research and data collection will be required to meet user needs.

This information can be used to study problems of state/regional/county concerns, such as land use planning, regional energy development assessments, power plant and transmission tower settings, strip mining, and mined land reclamation.