



# NORTH DAKOTA Farm Research

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## Barley For Beef

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# From the DIRECTOR



**A. G. HAZEN**

Information vital to our modern society flows from the research program of the Agricultural Experiment Station at NDSU.

To a great degree, success in any industry depends upon research. The successful manufacturer tests all materials used in his products. He studies all phases of production and marketing. He maintains a trained research staff for these purposes.

The agricultural industry is no exception, but it spends far less on research than does the manufacturing industry. One of the better ways for North Dakota to improve her place in the national economy is to continue to improve the quality and production of the crops and livestock produced in the state.

North Dakota has the soil, the climate, and the human resources to produce the best. The catalyst is research, followed by education and good management.

What does research cost? The Experiment Station is supported from state and federal appropriations and institutional collections. The present annual operating budget totals approximately 3¼ million dollars. About 60 per cent of this is state, 20 per cent is federal appropriations, and the balance of 20 per cent is from gifts, grants, and sale of research by-products.

But does this expenditure represent a cost or an investment? The approximate annual cash farm income from farm marketings and government payments in North Dakota is approximately 750 million dollars. Relating just this income to the annual expenditure for agricultural research reveals these relationships:

Approximate annual cash farm income, North Dakota	\$750,000,000
Current annual budget, all sources of funds, Agricultural Experiment Station (one-half of the 1967-69 total), including buildings	3,683,728
Percentage Station budget is of farm income	0.491%
Current annual budget, State Appropriations only, Agricultural Experiment Station (one-half of the 1967-69 total)	2,015,004
Operating Buildings and Land	325,500
<b>Total</b>	<b>\$2,340,544</b>
Percentage State Appropriations is of farm income	0.312%

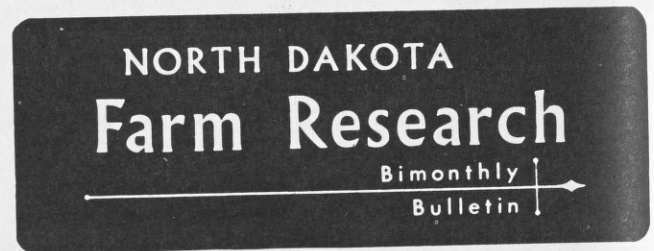
Thus, the total investment currently being made when compared with just the cash farm in-

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**On The Cover:** Barley is well-adapted to North Dakota growing conditions, and is considered a good grain for fattening cattle. Experimental work was conducted at NDSU to determine whether adding two vitamins, Vitamin E and Choline, Fat and two minerals, zinc and sulfur, to barley fed to cattle would have any effect.



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