NORTH DAKOTA
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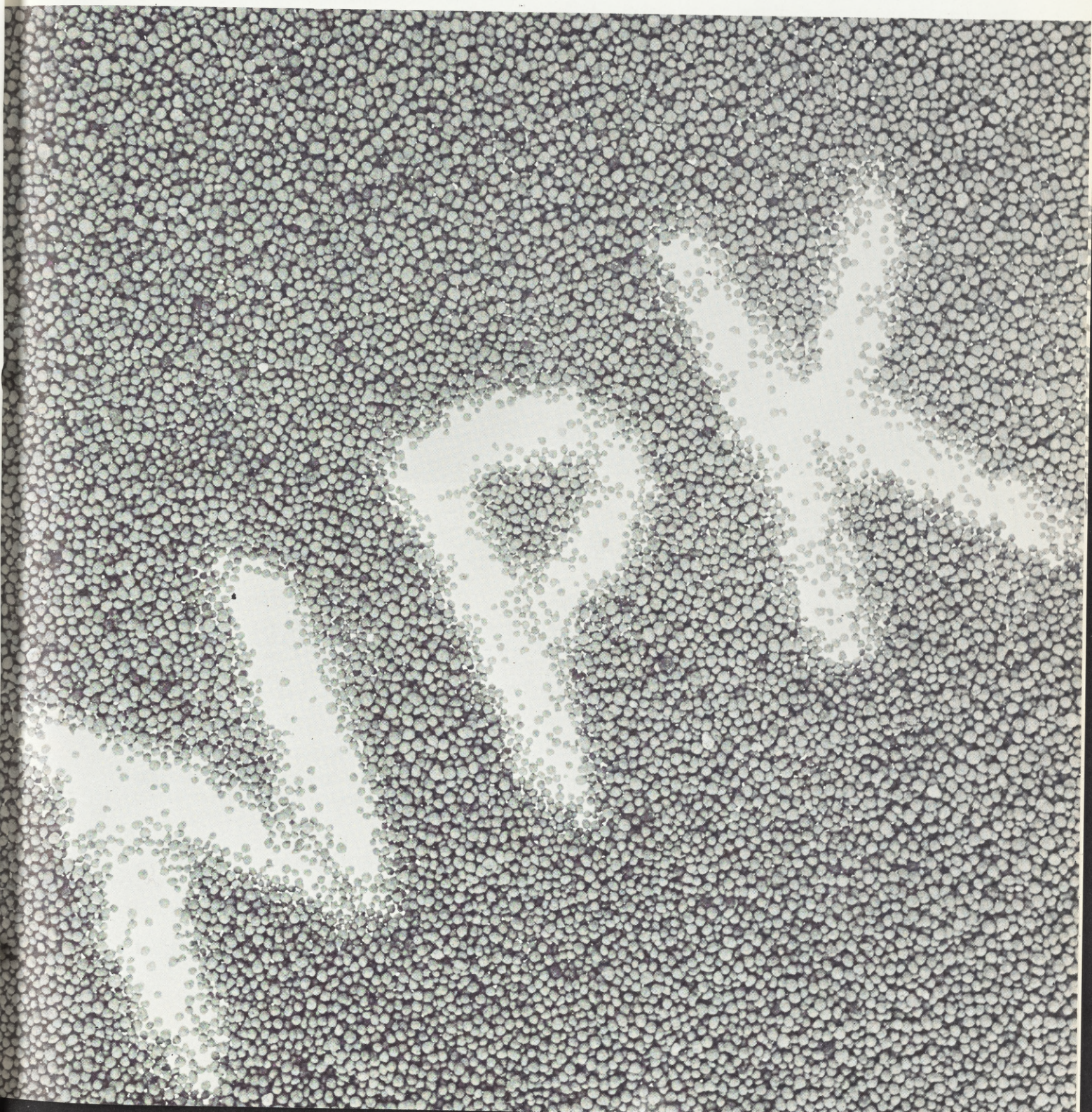
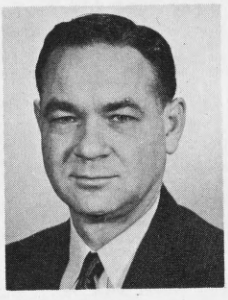


From the DIRECTOR



A. G. HAZEN

Soil fertility experiments have been conducted for more than 60 years by the North Dakota Agricultural Experiment Station. Research has been particularly intense in the last 18 to 20 years. In those same 20 years, use of commercial fertilizers has skyrocketed from slightly more than 20,000 tons annually in 1950 to a peak of 362,000 in 1967. Last year's tonnage was more than 327,000.

As spectacular as this increase has been, it represents only about one-third of the fertilizer that North Dakota farmers could use profitably on their crops.

Fertilizer companies, railways and implement companies have supported the fertilizer research program through contributions of supplies and equipment. Extensive contributions to the knowledge of fertilizer have been possible through the close cooperation of industry, the Experiment Station and not least, test plots on individual North Dakota farms.

Since it was first found to be a limiting factor in grain production on summer fallow land, phosphorus has been traditionally applied in the spring. Research has proved that it is two to three times more efficient to apply phosphorus through the drill down spout rather than broadcast.

Since the early 1950's, tests for phosphorus have remained much the same. But several refinements have taken place in testing for nitrogen. In those early days, management practices and cropping history served as a basis for nitrogen recommendation. Now, nitrate nitrogen tests, cropping history, stored soil moisture and growing season precipitation probabilities are taken into consideration when making nitrogen recommendations.

Using these guidelines made available through research, soil scientists can continue to refine their recommendations to better serve North Dakota farmers.

Recent cost comparisons show that the price of fertilizer actually has declined while other production inputs have increased considerably. As other inputs increase in price, fertilizer gives farmers in our state a real opportunity to increase their income through its proper use.

In This Issue

ON THE COVER

These power-packed pellets properly applied in the correct amounts on North Dakota fields will help farmers reach the crop yield potential on their farms.

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