From The Director . . . .

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In addition to research with short, stiff-strawed, high-yielding types, several crosses and backcrosses of adapted barleys have been made with Hiproly, an unadapted, disease susceptible, two-row, hulless (naked) barley. This barley reportedly contains the favorable combination of independently inherited high protein and high lysine, the essential amino acid deficient in cereals. Successful transfer of these traits should enhance the feeding value of barley, especially to non-ruminant animals such as poultry and young pigs that need high-energy feeds.

Some of the introduced two-row barleys have performed well in western North Dakota areas. Researchers hope to develop improved two-row types which will outyield present barley varieties in that area and for potential irrigated or higher rainfall areas. The two-row barleys offer greater and more uniform kernel size plus better stability under stress conditions for kernel size than six-row types.

Researchers have made several crosses recently with spring and winter barley varieties which have been outstanding performers in other parts of the country. This has helped widen the germplasm base. For several years, North Dakota research also has emphasized breeding for resistance to diseases such as loose smut, stripe mosaic and stem rust. This resistance is essential for the stability and productivity of both feed and malting barleys.

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