

LANGDON BRANCH STATION

Robert Nowatzki, Superintendent

The Langdon Branch Station was established during the Tenth North Dakota Legislative Assembly in 1907, and began operations in 1908. Early research involved grasses, livestock, and grain crops.

Since the mid-1950's, all agricultural research at Langdon has involved only crops. Major thrusts of crop research can be grouped into the areas of new variety development and testing; crop cultural practice production research; and production and distribution of foundation and breeder seed.

Throughout the past 22 years and under the leadership of Director Arlon Hazen and former station Superintendent Victor Sturlaugson, the Langdon Station has played an important role in durum wheat development. The Langdon Station grows a large plant breeder nursery of durum each year consisting of several thousand first and second generation selections, early generation yield trials, and advanced performance trials. Since 1956 and the stem rust years of the 1950's, all 15 of the new durum varieties developed by North Dakota State University have been selected and/or increased at the Langdon Station.

The Langdon Station also grows a large barley breeder nursery consisting of 2,000 to 4,000 plots of advanced lines. Testing at Langdon allows evaluation within the major barley producing area of the state.

A breeder selection nursery of potatoes has been grown at Langdon since about 1958. The nursery consists of first generation selections and has grown in size and numbers annually reaching about 12 acres and

nearly 50,000 selections in 1978. Essentially all new potato varieties developed in North Dakota are selected from the Langdon nursery.

Other crop variety testing involves performance testing of newly developed lines with all major commercial varieties.

Production research at Langdon has centered on evaluating and demonstrating alternative planting, fertilizer, and herbicide treatments to maximize crop yield. In recent years, beginning in 1973, the Langdon Station has evaluated a number of new specialty crops suitable as alternative crops for more intensive crop rotations within the station area. The station has been responsible for developing basic production guidelines for tame mustard production as this crop has expanded in North Dakota. Other specialty crops that have been evaluated and demonstrated for the area include field peas, rapeseed, dry edible beans, and tame buckwheat.

The Langdon Station has led in demonstrating crop production using the no-till technique. Research is currently underway comparing five commonly grown crops using no-till and traditional tillage treatments.

In 1978, the Langdon Station has six research projects underway and is cooperating on another 13 projects with several North Dakota State University departments. More than 50 individual experiments come within the various ongoing projects.

The Langdon Station has doubled in land available for research, has added buildings and personnel, and more importantly has intensified its crop research efforts contributing to an improved agricultural economy.