Spring vs. fall application of nitrogen fertilizer:- W. F. Nuttall, Melfort

Fall broadcast application of nitrogen on second, third or fourth crop after fallow has become a common practice in northeastern Saskatchewan due to greater availability of labour and lower fertilizer prices usually prevailing in the fall.

An experiment was set out in the fall of 1966 on Melfort silty clay with 13 fertilizer treatments (0 to 120 lb N/acre with or without 0 to 25.3 lb P/acre) as main plots and time of nitrogen application (spring and fall) as subplots.

The 40 lb N and 8.4 lb P/acre treatment with nitrogen broadcast in the fall gave a yield of Conquest barley which was not significantly lower than the spring application (46.1 vs. 51.5 bu/acre). The rates of N and P in this treatment were based on soil test recommendations.

Combining all fertilizer treatments fall applied fertilizer gave greater yields than spring applied fertilizers. A similar experiment with Arlo rape showed little difference between spring and fall application at the recommended rate of 40 lb N and 8.4 lb P/acre. Yields were low this year, however, because of the limitation of soil moisture.