

TITLE: No-Till Rotation Systems for Winter Wheat Production

PRINCIPAL INVESTIGATOR: Dwayne Beck

OBJECTIVE: Determination of the most profitable rotations for no-till production of winter wheat in central and western South Dakota.

DURATION: Present plans call for performing at least two rotation cycles (1991-2001).

PROGRESS REPORT/ACCOMPLISHMENTS: The no-till rotation study is located on a half section of land approximately 17 miles southeast of Ft. Pierre on an Opal-Promise soil series. Research procedures utilize field scale equipment, weigh wagon yields, and best management practices.

The fall 1998 and spring 1999 (October through March) precipitation was about average. However, the farm received above average moisture in April, May, June, July, August, and September. August was dry with only 1.24 inches of precipitation falling from July 31 to August 28. The research site had 19 days of temperatures equal to or exceeding 95 degrees F and **seven** of those days exceeded a high of 100 degrees F. The recorded high at the site this year was 109 degrees F on July 29th.

See the chart below for actual precipitation received at the research site from October 1998 through September 1999 versus average precipitation.

**Wheat Commission Rotation Study
Precipitation vs. Average
October 1, 1998 to September 30, 1999**



