

TO: Montana Wheat and Barley Committee

FROM: Montana State University-Bozeman
Agricultural Experiment Station
Research Centers located at:
Conrad, Havre, Huntley, Kalispell, Moccasin and Sidney

SUBJECT: 2009 Agricultural Research Report

Submitted is the 2009 Report of Agricultural Research conducted by the Montana Agricultural Experiment Station at Research Centers with funds received from the Montana Wheat and Barley Committee.

The main emphasis of research, with funding assistance from the Montana Wheat and Barley Committee, is to investigate various aspects of dryland continuous and/or flexible cropping systems as compared to traditional crop-fallow systems; and the appropriateness of various materials and practices as components of cropping systems in general.

This report has been compiled according to subject matter and not by location in order that the reader may more easily refer to certain aspects of the research.

In scenarios where adverse climatic conditions during crop year 2009 affected research results for one or more components of a particular research project, the impacts are described in the written narrative for each such report.

Other deviations from original plans for specific projects in the 2009 contract listing are as follows:

In *Section IV, Crop Fertility Investigations*, a report titled "Grain yield and quality response of no-till planted barley and spring wheat to stratified P soil tests, and P and N fertilizer", submitted by WTARC, features winter and spring wheat instead of barley and spring wheat.

In *Section VII, Other Agronomic Investigations*, a project titled "Evaluation of seed and fertilizer opener configurations for optimizing seed and fertilizer placement in simultaneous, single-pass operations with air drills under differing cropping systems", submitted by NARC, was not conducted in 2009 due to late wet spring conditions preventing planting prior to a cut-off date deemed appropriate for the area. Current year data is thus not available, but a report is presented featuring previous multi-year results.

In *Section VII, Other Agronomic Investigations*, a project titled "Effect of planting date and seeding rate on dryland spring wheat and malt barley", submitted by WTARC, was not conducted due to the late spring preventing timely planting. Thus, no report is presented.

In *Section VII, Other Agronomic Investigations*, a project titled "Effect of dormant planting of winter barley, winter wheat, spring barley and spring wheat", submitted by WTARC, has just commenced and is in progress. Thus, no report is presented at this time.

A Crop Variety Selection Tool has been created utilizing data from this report and previous Agricultural Research Center reports. This tool, which can be accessed at <http://www.sarc.montana.edu/php/varieties.php> is improved and updated on an on-going basis.