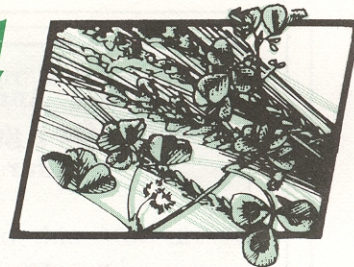


SUSTAINABLE FARMING

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STEWARDSHIP PAYS ON MONTANA GRAIN FARMS

— By DAVID GRANATSTEIN, SUSTAINABLE AGRICULTURE COORDINATOR AT WASHINGTON STATE UNIVERSITY —

Montana grain farmers who are adapting more sustainable farming practices also are enjoying higher profits, according to recent economic studies in the state.

As part of a western region effort to develop enterprise budgets for alternative farming systems that are funded by the USDA-SARE program, Montana State University (MSU) agricultural economists (Johnson et al., 1992) compared the performance of a generalized farm in the Golden Triangle region of north central Montana under "conventional" and "sustainable" management. The main difference between the systems was the use of a crop management service in the sustainable system that led to significant reductions in fertilizer use.

During the same period, a study of dryland producers using cereal-legume rotations was proceeding under the leadership of the Alternative Energy Re-

sources Organization (AERO) with cooperation from land grant university researchers (Matheson et al., 1991). Their study evaluated the production practices and gross margins of nine producers in the Northwest, including two Canadians. Two Montana growers who participated in the study are situated in the Golden Triangle area. The economic results from these two studies are described here.

MSU WHOLE FARM BUDGETS

The data for the MSU study came from interviews with four farm managers who were using a crop consulting service. They identified the crop management systems used before and after the advent of the consulting service.

Their practices were then used to develop a "conventional" and a "sustainable" production scenario and budget for a generalized farm of 5,300 acres. The generalized farm has a rotation of winter wheat-fallow-barley-fallow-spring wheat-fallow, so nearly 50 percent of the acreage is in fallow each year. About 100 acres of irrigated malted barley is included in the generalized farm system.

Yields for the comparison were based on 10-year weighted averages for each of the crops grown, based on data from the two counties in which the sample farms were located. Prices and costs were based on 1990

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VEGETABLE OIL FUELS GET ANOTHER LOOK

Farmers are always in search of new ways to reduce the need for costly purchased inputs — pesticides, fertilizers and fuel — but some alternatives that could be produced on the farm require extensive processing and so have been ignored as economically unfeasible.

Studies of vegetable oil/diesel blends as a renewable fuel is of particular interest to farmers who customarily spend as much as one third of their energy budgets on diesel fuel. By growing vegetable oil for fuel processing, a group of Montana farmers hopes to enhance self-reliance while keeping energy production costs competitive with what they'd normally spend on fuel off the farm.

With a \$300 start-up grant from the Alternative Energy Resources Organization, members of the Diesel Vegetable Oil Combo Club intend to find out if it's feasible to press sunflower oil seeds and add them to diesel fuel. They are not deterred by research that so

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