

only \$175/ac for barley followed by cereal; however these differences varied among years. In conclusion mustard has value as alternative crop in an intense cereal grain cropping rotation in the dryland cropping region of eastern Washington. Over the duration of this study, mustard in rotation produced \$11/ac more gross economic return than barley included in rotation. However gross economic return is both a function of crop production and market price.

*Glyphosate and Diesel Price Changes Benefit Conservation Tillage

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More on the Web Using 2005 versus 1998 input prices for the economic analysis of a winter wheat-summer fallow (WW-SF) tillage system experiment at Lind strengthened the relative profitability of two conservation tillage systems compared to traditional tillage. Sharp increases in diesel prices by 2005 penalized the traditional tillage (TT) WW-SF system due to more diesel consumption. However, all three WW-SF systems in this experiment used fairly similar quantities of diesel. In areas where zero-tillage direct-seeding is feasible, relative cost savings would be even greater. The conservation tillage systems consumed more glyphosate herbicide, but that cost was cushioned by a decline in glyphosate prices. Use of aqueous $\text{NH}_3\text{-N}$ instead of anhydrous $\text{NH}_3\text{-N}$ also favored the conservation tillage systems as aqueous $\text{NH}_3\text{-N}$ experienced a more moderate price increase between 1998 and 2005. Using the same N fertilizer source for all three tillage systems would have narrowed the profitability advantage for the conservation tillage systems, but they would have still remained significantly more profitable than TT. The updated economic results in this comparison provide strong evidence for the relative profitability of conservation tillage, such as those using the undercutter implement, for winter wheat-summer fallow farming in low precipitation regions of eastern Washington under current economic conditions.

*How Do Government Crop Subsidies and Crop Insurance Influence the Profitability of Conservation Cropping Systems?

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More on the Web The purpose of this research was to examine the effects of government subsidies and crop insurance on the relative profitability of conservation and conventional dryland cropping systems in arid eastern Washington. Special attention is devoted to the direct payments, countercyclical payments, and loan deficiency payments (LDP's) included in the 2002 Farm Bill. Even with the inclusion of government subsidies and crop insurance, none of the six annual no-till crop rotations in the low-precipitation Phase II (2001-2004) of a Ritzville experiment generated sufficient returns to cover total costs, nor did any approach the profitability of the winter wheat-summer fallow (WW-SF) which averaged \$16.93 per rotational acre with subsidies and insurance. During 2001-2004, subsidies and insurance boosted the highest ranked annual no-till crop rotation, soft white spring wheat-spring barley (SWS-SB), by \$24 per rotational acre, increased the lowest ranked soft white winter wheat (SWW)-SB-yellow mustard (YM)-SWS rotation by \$17.26 per rotational acre, but also lifted the traditional WW-SF system by \$16.88 per rotational acre. These results reflect the proverb that "a rising tide raises all ships." A similar comparison for an experiment in the Horse Heaven Hills of Benton County also showed no reversals of rankings between annual no-till hard red spring wheat and traditional WW-SF with and without subsidies and crop insurance.

If Congress reverts to subsidies that are coupled to current production, inclusion of such subsidies would be an essential part of accurate economic comparisons of cropping systems. But present World Trade Organization rules discourage coupled payments. Also, where specific environmental "green payments" are available from state or federal agencies for conservation farming systems, their inclusion in economic assessments would be needed for valid private profitability comparisons. To date, however, most federal farm programs enacted by Congress have been tied to historic or current crop production rather than to environmental practices.