

followed by the release of high-yield-potential semi-dwarf wheat varieties in the 1960s. By the 1980s and onwards countywide average wheat yields continued to increase despite many years of lower than average precipitation (data not shown). Separate countywide average winter wheat and spring wheat yield data in Whitman County are available beginning in 1972. From 1972 to 2007, winter wheat yield increased by an average of 0.91 bu/acre per year (49 to 81 bu/acre, Fig. 1). Countywide spring wheat grain yield also increased during this time period at an average rate of 0.69 bu/acre per year (30 to 55 bu/acre, Fig. 1). Thus, the grain yield gap between winter wheat and spring wheat in Whitman County has grown from 19 to 26 bu/acre in the last 35 years.

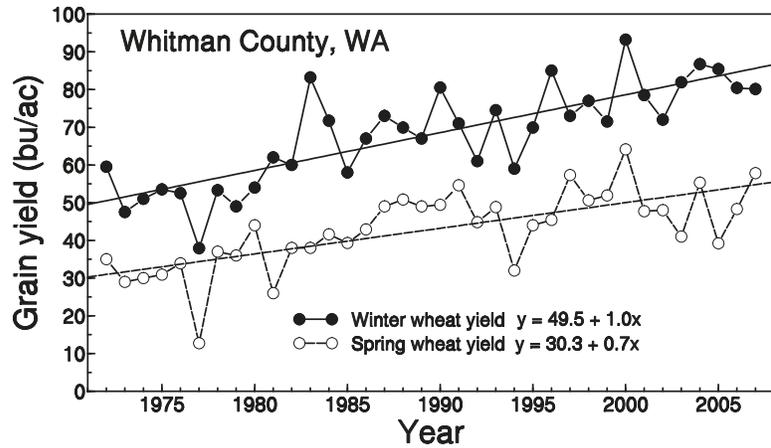


Fig. 1. Countywide winter wheat and spring wheat grain yields in Whitman County, WA from 1972 – 2007. Data show that winter and spring wheat yields have increased by an average of 0.91 and 0.69 bu/acre per year, respectively, over the past 35 years. Data are from USDA-National Agricultural Statistics Service.

Historic Winter Wheat Yields in Adams County, Washington

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The first successful wheat crop was harvested in Adams County in 1880. Accurate countywide grain yield data have been available since 1929. In the past 80 years, average countywide wheat yields have increased from 15 bu/acre to about 50 bu/acre, an increase of 0.42 bushel per year (Fig. 1). Essentially all dryland farm acreage in Adams County is in a winter wheat – summer fallow rotation. Better winter wheat varieties, herbicides, fertilizers, tillage management, and so forth continue to drive grain yields upward. Figure 1 clearly shows that, before the introduction of nitrogen fertilizer in the 1950s, wheat did not make productive use of rainfall during wet years. Although the amount of annual precipitation has fluctuated widely from year to year, there are no consistent long-term trends during the past 80 years. However, since 2000, crop-year precipitation has been less than the long-term average in all years except 2006.

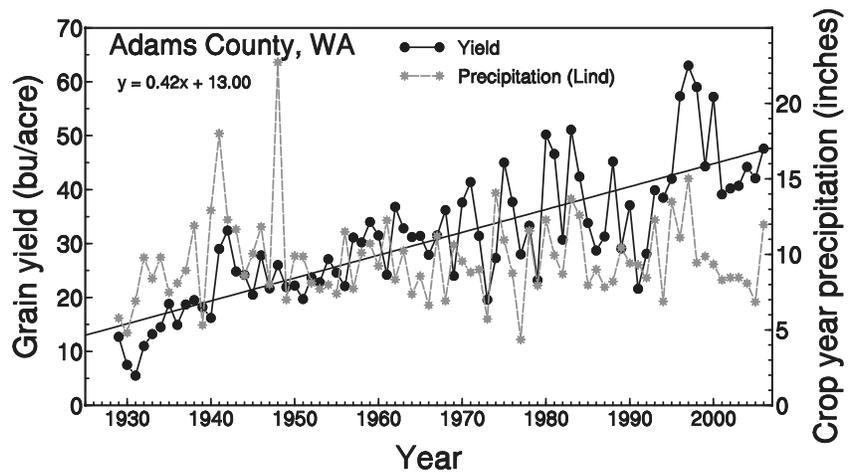


Fig. 1. Long-term average countywide dryland wheat grain yields for Adams County, Washington, superimposed with crop-year precipitation from Lind, WA. Long-term average precipitation at Lind is 9.52 inches. Yield data are from USDA-National Agricultural Statistics Service.