Montana Department of Revenue

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Spring Wheat Productivity Adjustment Factors

When valuing agricultural property, the Department of Revenue's goal is to create an equitable and uniform valuation methodology that takes into account both soil based production estimates, which can be grown under average management practices, and historical production levels. As recommended by the Governor's Agricultural Land Advisory Committee, the *County Average Production* formula accomplishes this goal by adjusting soil productivity estimates downward, by *Adjustment Factors*, when soil yield estimates are greater than historical production levels.

In detail, the Countywide Spring Wheat Productivity Adjustment Factors are calculated by adjusting the USDA Natural Resources Conservation Service (*NRCS*) soil survey average yields for spring wheat downward, by standardized *Adjustment Factors*, for counties where the Montana Agriculture Statistics 12 Year Countywide Average Production (*12 Year Average*) levels are lower.

For example, in Beaverhead County the *NRCS* spring wheat average is 23.31 bushels per acre and the *12 Year Average* is 20.25 bushels per acre. When Beaverhead County's *Adjustment Factor* is applied, the resulting *County Average Production* is 20.31 bushels per acre.

The *Adjustment Factor* is calculated by dividing the *12 Year Average* by the *NRCS* average. For example, in Beaverhead County the *Adjustment Factor* is 20.25 / 23.35 = 87%. To calculate Beaverhead *County's Average Production,* the adjustment factor is multiplied by the *NRCS* average.

Calculating the Adjustment Factor for Beaverhead County

Adjustment Factor = *12 Year Average* / *NRCS* Average = 20.25 / 23.35 = 87%

Adjusting the *NRCS* Average Down by the Adjustment Factor for Beaverhead County

County Average Production = *NRCS* Average * Adjustment Factor = 23.35 * 87% = 20.31

As you can see in the attached spreadsheet, there are three counties where *NRCS* information is not available. In these instances the Montana Agriculture Statistics 12 Year Countywide Average Production (*12 Year Average*) is used as the *County Average Production*. Similarly, there are six counties where the *12 Year Average* is greater than the *NRCS* average. In these instances, the lower of the two metrics, the *NRCS* average, is used as the *County Average Production*.