

**Water Lease Rate Calculator – an Excel Spreadsheet Decision Support Tool**

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The tool is available from Dr. Tranel's website:

<http://www.coopext.colostate.edu/tranel/>

On the left side, click on "decision tools" and then "water lease rate calculator v 3".

This is a draft decision support tool which applies farm-specific information to the problem of determining the minimum acceptable price for a water lease. Please note that the tool DOES NOT SPECIFY THE WATER BY VOLUME – it uses the information about farming on acres as described. A user would determine the number for the acres in question. The rate for a given lease would have to meet or beat that AFTER CONVERSION OF THE VOLUME OF WATER TO BE LEASED into the amount applied to those acres. A farmer's ditch company might divert 100 units for Farmer A, lose 15 through ditch seep and leak, and deliver 85. Of the 85, return flow obligations might be 40 (for example, from a flood irrigation situation), so 40 might be leasable. So, the rate calculated for the acreage considered would be the minimum rate needed for that 40 units... BUT there may be additional things to consider, if the ditch company needs to retain flows for sand management or other needs. And, the WATER FOLLOWING expenses would include whatever expense is needed to achieve goals such as erosion control, planting a "fallowing crop", and perhaps herbicides or pesticides, as well as ditch assessments and management. So, it will probably be critical to develop the "fallowing plan" before making a final decision and final use of this tool. Working it without these expenses might help to get some idea of what could be considered in the "fallowing plan", but would probably not be the starting point for making a deal.

FROM THE COVER SHEET: This tool is designed to help a farmer determine the lease rate at which it would be financially beneficial to lease irrigation water to another user and "water fallow" the applicable areas. Because there are myriad factors (financial and non-financial) involved in such a decision, no decision tool can be developed to calculate a definite and final answer. This tool serves as an aid to help the decision-maker get "in the ball park" and make a more informed decision.

There are two sets of tools which will provide the same answer. (1) "Simple Form" is a single page worksheet for calculating profits from producing crops on the selected acres. The user may mouse click on the "simple form" tab (located at the bottom of the screen) to go to that worksheet. (2) A set of worksheets is also available: "Farm Income", "Farm Expenses", and "Lease Rate." These worksheets allow the user to use information directly from the tax form Schedule F. Enter numbers from Schedule F in those cells having a pale yellow background. Then enter the portion of that income or expense applicable to production on the selected acres into those cells with a pale blue background. The user should complete the forms in order, Farm Income first, Farm Expenses second, and Lease Rate third.

The user bears all responsibility for information entered in the worksheets and decisions made.

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