

## Contouring in RUSLE2

The Revised Universal Soil Loss Equation, Version 2 provides four separate and distinct ways to evaluate the effect of contour farming. The separate methods are;

- 1) “rows up-and-down hill”;
- 2) “perfect contouring no row grade”;
- 3) “absolute row grade” (multiple choices), and
- 4) “relative row grade” (multiple choices) – **will be deleted by end of 2015 and will not be discussed as a viable option**

“Rows up-and-down hill” will be used when there is no attempt to plant crop rows across the land slope. This designation shows that the producer is farming the field in the fastest and easiest way possible aligned with the straightest and longest axis of the field. The only concern for the producer is to get the crop into the ground and move on to the next field.

When contouring is truly being used, you will need to select one of the two remaining methods to document the row grade to be used in the erosion model. Rarely will you use the “perfect contouring no row grade” as this situation does not often occur. Absolute row grade is the method that provides the best input data for the model and should be the method used in most planning and application of conservation practices especially if the field has contoured terraces or diversions that are being followed.

“Relative row grade” shall not be used as any saved files will have broken links in the databases that need to be fixed when this method of determining row grade is removed from the model – making these corrections will be a time consuming process to do correctly!

Absolute means “measured” or “certain”. The absolute row grade will be measured in each and every field using surveying equipment such as an engineer’s level or a clinometer. The slope of the row grade is actually measured across the dominant critical slope that has been determined for each field. This measurement represents the entire field and will be entered as the closest percent slope shown as an option in the RUSLE2 dropdown list in the Profile Screen under “Step 5: Set supporting practices: Contouring” and in the Worksheet Screen for all lines under the column titled “Contouring”.

When the land slope grade and the row grade are not known, use the “rows up-and-down hill” option until you are able to visit the field and measure these two factors. In all cases conservation planners need to have actual measurements to complete a RUSLE erosion prediction. Remember when the field slope is 7 percent, you cannot select a row grade that is steeper; selecting “up and down hill” on a 7 percent slope will be equivalent to an absolute row grade of 7 percent.