



USDA-CSREES 2007 National Water Quality Conference

[Nebraska Phosphorus Index Erosion Estimator](#)

The estimate of sheet and rill erosion is the most important factor in the calculation of the Nebraska Phosphorus Index (PI), but is one of the most difficult and time intensive to estimate when using RUSLE2. An erosion estimator function was added to the current Nebraska PI to provide an alternative to using RUSLE2 to estimate erosion. The erosion estimate is calculated using data entered by the user in the existing PI calculator database. Land use, tillage and conservation practices, soil erodibility, slope, and rainfall factors are used in the erosion calculation. The erosion estimator has been calibrated with field scenarios analyzed by RUSLE2 with an adjustment to slightly overestimate the rate of erosion in order to avoid underestimating the risk of P loss. When the P index value is borderline between medium and high or high and very high risk, the P index raises a caution suggesting that the user obtain a more accurate estimate of sheet and rill erosion for this field.

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