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Letters to the Editor

Interpret with Caution

Weinhold, B.J. J.R. Hendrickson, and J.F. Karn. 2001. Pasture management influences on soil

properties in the Northern Great Plains. Journal of Soil Water Conservation 56:27-31.

Weinhold et al. (2001) present an interesting study on historic long term grazing trials in Central North Dakota, however, the results must be interpreted with caution. The article appropriately points out that this is a single non replicated experiment (psuedoreplicated), but the findings are broadly extrapolated. Because of the lack of replication and application of fertilizer treatments only to crested wheatgrass, one cannot discern whether differences in soil biochemical properties were a function of grazing intensity, species composition, fertilization or simply the physiographic position of the pasture units. Importantly, the pastures changed over time, with native grasses in the control being replaced by sedges and Kentucky bluegrass. Changes are ascribed to grazing intensity, but could have been due to site differences or anthropogenic disturbance.

The authors make conclusions regarding the sustainability of the soil resource under crested wheatgrass in spite of design limitations and the predominant occurrence of non-native grasses on the control pasture. These conclusions are unsettling, considering the growing body of literature (none of which is cited) suggesting that crested wheatgrass (compared to natives) does indeed degrade the soil resource. Additionally, conclusions are drawn in the context of the "Northern Great Plains," however these isolated experimental units cannot be considered representative of this entire region.

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Benefit-Cost Calculation

Prato, T. and S. Hajkowicz. 2001. Comparison of profit maximization and multiple criteria models for selecting farming systems. Journal of Soil Water Conservation 56:52-55.

The authors argue that farmers may use multiple criteria to select farming systems, not simply profit maximization. They develop a multiple criteria decision-making (MCDM) model that weights farmers' preferences for five criteria (net return, risk, drinking water quality, aquatic ecosystem, and soil erosion) in order to estimate a utility score (v) for each of five farming systems. Using a sample of twenty farmers, they find the farming system that maximizes net return (nr) is not the one that maximizes their utility score (v). They encourage more MCDM modeling to determine if conservation subsidies should be based on ν rather than nr. Their approach is promising.

The authors are attacking a straw man when they conclude that one year's net return is a flawed criterion for decisionmaking. Most farmers, policy makers, and economists would not use this single criterion. The farmer surely recognizes that one year's net return is only part of the private benefit-cost calculation. Soil erosion affects the present value of future net returns and the market value of farmland. Risk of net returns is certainly part of the private economic calculus too. Public policy certainly recognizes the importance of externalities of production processes, for example, drinking water quality, aquatic ecosystems, and the downstream costs of soil erosion. Economists have a long history of testing models that incorporate these impacts into private and public decisions. Yes, private and public decisions are modeled better with the MCDM model than with a naïve net return model. However, many models can make the same claim.

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Editor's Note:

"Letters to the Editor" are a forum for Journal readers and should be no longer than 200 words. If you have a comment on any of the articles or viewpoints, you may address those comments to: Managing Editor, Journal of Soil and Water Conservation, 7515 NE Ankeny Rd, Ankeny, IA 50021–9764. Or you can email your comments to jke@swcs.org.

Final decision about publishing rests with the editor.

Correction

The article "Hydrologically Sensitive Areas: Variable Source Area Hydrology Implications for Water Quality Risk Assessment" (Volume 55, Number 3) in the Journal of Soil and Water Conservation appeared with inaccurate material.

The article is available to read, review, or download on the internet at www.aben.cornell.edu/swlab/ and also at www2.jun.alaska.edu/-jfmtw1/HSAhome.htm. A .pdf version will also be available at these sites.