

New Extension guide on strategies to best estimate soil nutrient levels and variability

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A new Montana State University Extension Service publication is available to identify optimal soil sampling strategies to best characterize soil nutrient levels.

Also, for producers who want to apply different nutrient rates across a field to optimize yield and fertilizer use, this guide discusses how to divide a field into management zones.

"The main goal of soil sampling is to characterize the nutrient status of a field as accurately and inexpensively as possible," said Clain Jones, Extension soil fertility specialist in MSU's Department of Land Resources and Environmental Sciences.

"If soils were uniform, this would be easy, however, nutrient levels are generally quite variable across a field," Jones said. For example, phosphorus levels have been observed to vary more than any other nutrient within a field. In addition, different soil sampling strategies can account for this variability better than others.

Unfortunately, collecting a soil sample representative of an entire field is not a simple task. "Having a better understanding of several different soil sampling strategies should help producers achieve their goals," said Jones. The new MontGuide describes optimal soil sampling strategies to obtain representative soil samples and the number of soil samples to collect per field for a desired accuracy level.

The guide assists in determining which soil sampling strategy is best for a field.

For copies of the MontGuide, please refer to the Web at <http://msuextension.org/publications/agandnaturalresources/mt200803AG.pdf> . To order printed copies, please refer to the Web at [http://www.montana.edu/wwwpb/com_serv/\\$order.html](http://www.montana.edu/wwwpb/com_serv/$order.html) or call Extension Publications at (406) 994-3273. Contact your local MSU Extension agent (<http://extn.msu.montana.edu/localoffices.asp>) or crop adviser for help interpreting your soil test results and for specific fertilizer decisions.