

What is Variable Rate Technology?

Variable Rate Technology (VRT) lets you apply inputs in varying amounts across your fields so they can be used more efficiently. Precision samples make for better decisions on where to place nutrients in the field to maximize yields.

What can VRT soil sampling and applications do for my yields, soil health and water quality?

- Soil samples are the foundation of effective nutrient management planning.
- Precise soil samples allow precision applications.
- Apply fertilizer where needed, reduce where not. VRT places more of the fertilizer on more productive soils where the additional fertilizer will be used by the crop.
- Application prescription can shut off sections to follow setbacks in the field.
- Reduce overlap and duplicate application of chemicals and fertilizer.
- GPS Autosteer can run on controlled traffic lanes, reducing compaction throughout the field.
- More efficient use of chemicals and fertilizer, less waste.
- Improve your labor efficiency and effectiveness. Automation leads to improved productivity and reduced fatigue for operators.

What issues should I be aware of?

- Technology is continuously getting more accurate and efficient. New equipment can become outdated quickly. Capital investment for equipment can be prohibitive. Consider leasing or custom VRT sampling and application rather than purchase options.

- Consider applicator learning curve and training costs.
- Calibrate per manufacturer recommendations to ensure accurate, efficient operation.
- Many ag retailers currently offer variable rate programs. Custom work allows farmers to spend more time in tractors or combines as needed.



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Additional Resources:

Precision Farming Tools: Variable-Rate Application

http://pubs.ext.vt.edu/442/442-505/442-505_PDF.pdf

Soil Sampling for Variable Rate Fertilizer and Lime Application

<http://www.agronext.iastate.edu/soilfertility/info/NCMR348.pdf>

Precision Agriculture Series: Timely Information

<http://www.agmachinery.okstate.edu/PrecisionAgTech/OverviewOfVariableRateTechnology.pdf>

Check with your county NRCS office and Soil and Water Conservation District for financial assistance programs.