

# INTENSIVE SOIL SAMPLING

Central Valley Ag's ACS team can bring you many advantages with intensive soil sampling. The ACS team does intensive sampling to establish a baseline of soil fertility levels without bias from previous land use, cropping histories or manure applications. These samples are collected and information is kept in-house to be analyzed and available to you and your CVA partners. Your property and information are accessed only by CVA employees, keeping your data secure. Soil samples are analyzed for Major and Secondary Nutrients as well as OM and pH. Micro-Nutrient and Nitrogen analysis are available for additional fees on request. All soil analysis is performed by an independent, nationally recognized and certified soils lab and results are evaluated and interpreted by experienced CVA ACS specialists and Field Sales Agronomists.

## THERE ARE MANY THINGS TO CONSIDER WHEN IT COMES TO INTENSIVE SOIL SAMPLING

### VARIABILITY

Geo-referenced soil tests & fertility maps allow you to manage your fertilizer applications for increased yields & profitability.

### MANAGEMENT

Improved knowledge of soil fertility levels across the field results in better fertilization decisions.

### PROFITABILITY

Reduce fertilizer applications and cost in high fertility areas.

*Price of Corn \$5.00*

*\* Average Yield Increase  
18/bu corn/A and 6 bu  
soybeans/A*

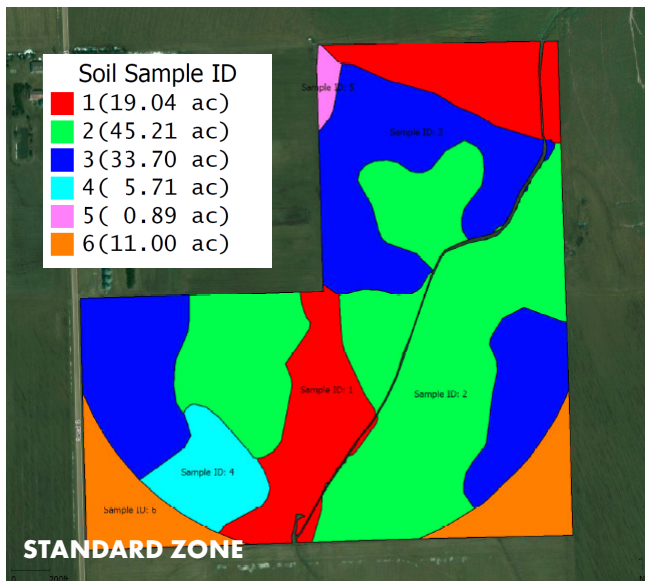
*- Avg. Cost of Sampling,  
additional fertilizer &  
application. \$20/A*

*= Profit  
\$70/A/yr average*

*Annual ROI to Intensive  
Sampling & VR Fertilization  
5:1*

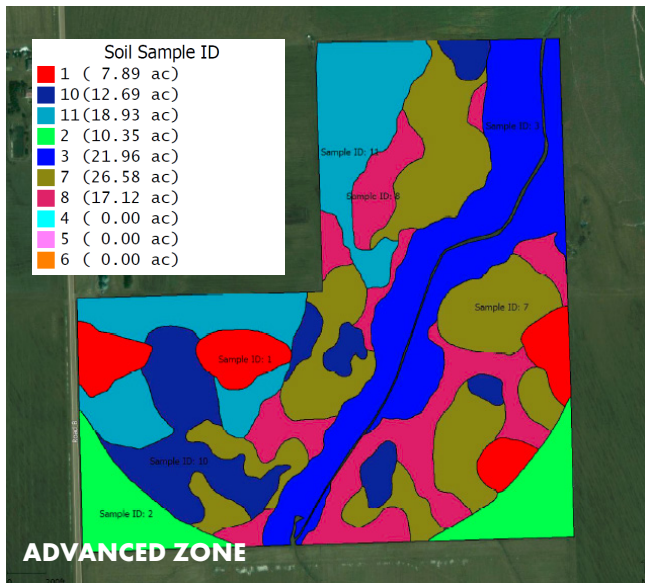
## DID YOU KNOW?

- Less than 10% of the samples tested are in the optimum range for Phosphorus. 41% of samples are below levels required for optimum yields, 27% are below critical levels & almost 36% are higher than necessary.
- On average, soybean yields are reduced by 9% when Phosphorus levels are less than 20ppm.
- 19% of samples tested are below 6.0 pH, reducing corn yields by 15% - 60% & reducing soybean yields by 15% - 35%, depending on the severity of the pH problem.
- CVA has taken intensive soil samples on over 1,500,000 acres & currently samples over 200,000 acres annually.
- Average yield advantage for intensive sampled & VR Fertilized Soybeans is 5.9 bu/acre.
- Average yield advantage for intensive sampled & VR Fertilized Corn is 18 bu/acre.
- The average change in fertilizer investment when intensive sampling is approx. \$13/acre/year including application.
- Land with documented "high" fertility levels sold an average of 19% higher than the county average.



## Standard Zone

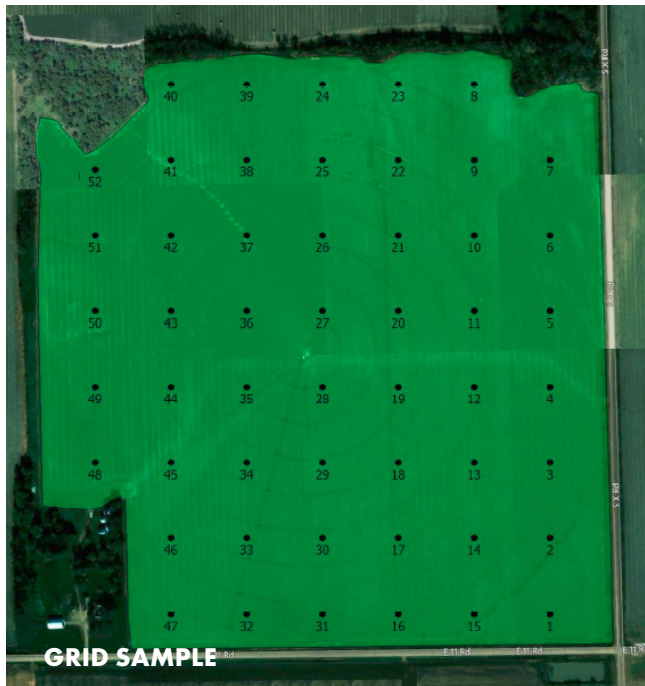
- Zones are composed of a series of carefully selected NDVI images
- Geo-referenced sampling for consistent year to year nutrient trending and management
- Identify field variability based on yield zones
- 12-16 cores pulled per zone
- 4 year program with annual payments



## Advanced Zone

Standard zones plus higher resolution and defined zones created with 4 layers of data:

- EC Mapping (Shallow 0-12" and Deep 12-36")
  - » Topography, Soil water holding capacity, OM, clay content
- RTK Elevation
- NDVI imagery or Yield Data
- Consistent zone identity correlating to the zones soil topography and yield potential
- 4 year program with annual payments



## Grid Sample

- Evenly distributed geo-referenced sampling at 2.5 acre intervals
- 8-10 cores pulled at each site
- Samples typically pulled once every 4 years

## Variable Yield Goals with FieldReveal

- Crop Yields are not uniform across your fields.
- We can use your Harvest Data to create Variable Yield Goals to match inputs to true yield potential.
- Minimize Production Costs to Achieve Maximum Economic Yields.