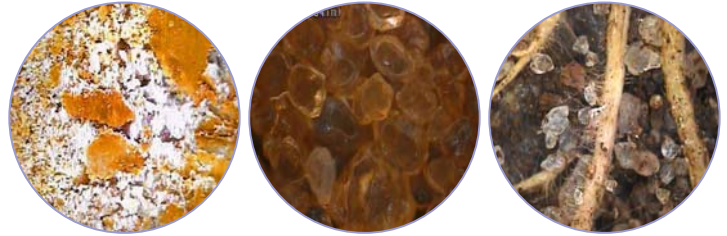


Terroir™ Analysis and SIS

Terra Spase's Terroir product is a complete analysis of vineyard site suitability for the highest quality wine grape production. Site topography and soils are scrutinized, and a comprehensive set of viticultural recommendations are developed using cutting edge science and technology to maximize your site's fruit quality potential. Terroir analysis now utilizes the Soil Information System (SIS), a new approach for collecting, processing, and interpreting physical and chemical soil information at a resolution and accuracy previously unavailable. Hundreds of customers around the world have discovered the incredible and ongoing benefits of understanding their most valuable reusable natural resource, the foundation of their unique terroir.



Images of the soil environment collected with the SIS

Terroir™ Viticulture Recommendations Using SIS

SIS Maps	Recommendations
Topography	Block boundaries, Drainage.
Soil physical properties	Subsurface drainage, Soil ripping, Slip plow.
Soil texture, depth, water holding capacity	Row spacing, Trellis type, Irrigation design and scheduling, Moisture sensor placement.
Soil pH, CA/Mg, Na, EC, OM, CEC	Soil amendment applications, Compost applications.
Soil Chemistry (N,P,K,Ca, Mg, Zn, B)	Soil nutrient applications.



SIS hardware and sensor systems used to collect data and create maps

How will Terroir™ and SIS save me money?

Comprehensive, accurate Terroir™ analysis will save you money by helping you target soil preparation and amendment applications, and insure that soil moisture monitoring is correctly positioned to maximize irrigation efficiency.

Will Terroir™ and SIS improve my grape quality?

Terroir™ gives you the tools to manage soil fertility and optimize your irrigation strategies. Crop quality will improve as you manage yields while enhancing fruit composition characteristics such as color, phenolics, and sugars.

Soil Vigor Potential Plus™: Modeling Quality

Soil Vigor Potential Plus™ is a unique, proprietary tool that employs geostatistical modeling to synthesize chemical and structural properties of your soils into a single index of soil vigor potential. Time after time, Soil Vigor Potential Plus™ has proven to be the key component informing critical decisions on vineyard layout, irrigation design, and plant material selection. By providing a clear summary of the data collected in our Terroir analysis, Soil Vigor Potential Plus™ is the key to uncovering the truth about your terroir.

What others are saying about Terroir™ and SIS

...the information has been crucial for our rootstock, soil amendment, and irrigation design decisions. Vineyards designed and installed using these reports and maps are much better suited to soil conditions and able to produce better quality fruit.

-Corky Roche, Roche Vineyard Consulting

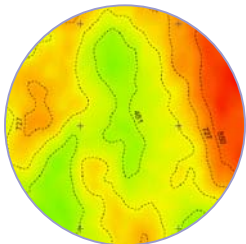
SIS data enables state of the art decision making relative to vineyard management decisions. The SIS technology provides a wonderful picture that assists managers in understanding and applying complex soils data. The SIS is a new tool for the new generation.

-Paul Garvey, Garvey Vineyard Management

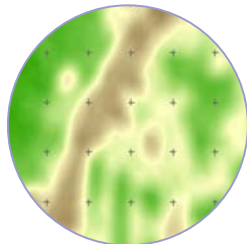
The SIS could change the wine industry through better farming.

-Wine Business Monthly

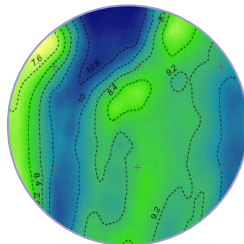
A sampling of Terroir™ and SIS information products



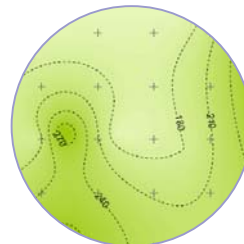
Compaction distribution and intensity in 3-D for targeted, efficient ripping



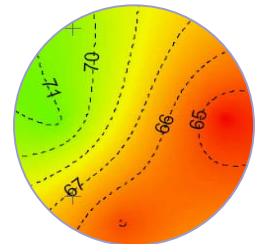
Nutrient holding capacity enables precision fertility applications



Water holding capacity for irrigation monitoring and selective harvesting



Chemistry mapping for identifying soil toxicity or deficiencies



Soil vigor potential modeling, critical for vineyard design and plant material selection