Environmental Guidance for Agriculture

What do you REALLY need?

Brent Shaw, CCM
VP of Content & Customer Success
Answer: IT DEPENDS!

- What decision is needed?
- Over what time frame?
- Where?
- What are the driving environmental factors?
- What are other sources of uncertainty?

The optimum solution is arrived at through multi-disciplinary analysis of these key questions!
“Rapid advances in technology ensure wide access to data, but data is most effective only when it can be **translated to actionable information**. This requires high-quality forecasts **tailored to specific end-user needs**; increased **understanding of how end-users engage with and respond to messaging** ..." 

Call for papers, AMS Special Symposium on Impact-Based Decision Support Services.

**Corollary:** The new paradigm is not a one-way flow of commodity data, but a multi-directional exchange of information necessary for the specific problem.
The Air, Soil, and Plant Continuum

ClearAg Weather Data

Crop Models
Crop Type and Characteristics
Topography and Soil Classification

Ag-Optimized Land Surface Model

Atmospheric Processes
Agronomic Practices

Land & Subsurface Attributes & Processes

Historical and Forecast Soil Temperature, Moisture, and Canopy Environment
Multi-discipline, multi-directional services for optimum decision support and agricultural business intelligence.
Crop Decision Support – Disconnected Approach

**Environmental Data**
- Weather Stations, Soil Sensors, Remote sensing data, Weather Models, etc.
- Air Temperature
- Soil Temperature
- Solar Radiation
- Wind Speed
- Soil Moisture
- Precipitation

**Field Data**
- Field Surveys, Pedons, DEMs, Lidar, Soil samples, In-field management data
- Soil Texture
- Field Slope
- Soil Chemistry
- Organic Matter
- Tillage

© 2017 Iteris, Inc. All Rights Reserved.
Crop Decision Support - Connected Approach

- Plant Growth Stage Estimation
- Disease & Pest Occurrence
- Irrigation Scheduling & Drainage Information
- Nutrient Uptake & Transport
- Yield Modeling

ClearAg Focus
Global, Soil-Plant-Atmosphere Continuum Field Level Output Capability

As-Applied Data

Integrated Deep Learning Environment
Summary

• Start with the end in mind.
• Ask the right questions.
• Engage across the relevant sciences.
• Seek understanding of the needs-solution space.
• Eliminate integration barriers.
• Turn data into action.

*Transition from vendor-client to trusted partner relationships.*