

The Green *Data* Revolution.

➤ DTN Conference-Chicago

➤ Kyle Tom

➤ Tom Farms



Tom Farms

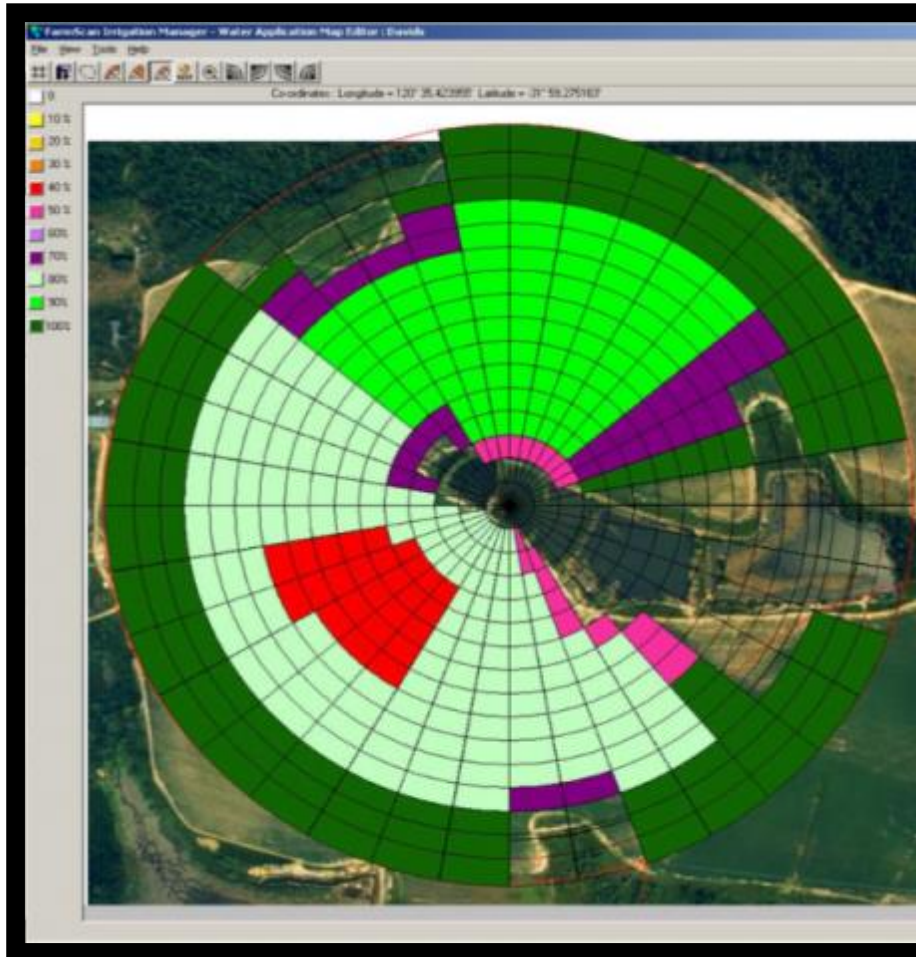
dtm THE PROGRESSIVE FARMER

Building Blocks to Prepare for Green Data Revolution.

- Human Talent
- Social License
- Innovation

The glue between these factors is collaboration. Its going to take a lot of talented people working together in an coordinated order to create the most innovation to meet the challenge.

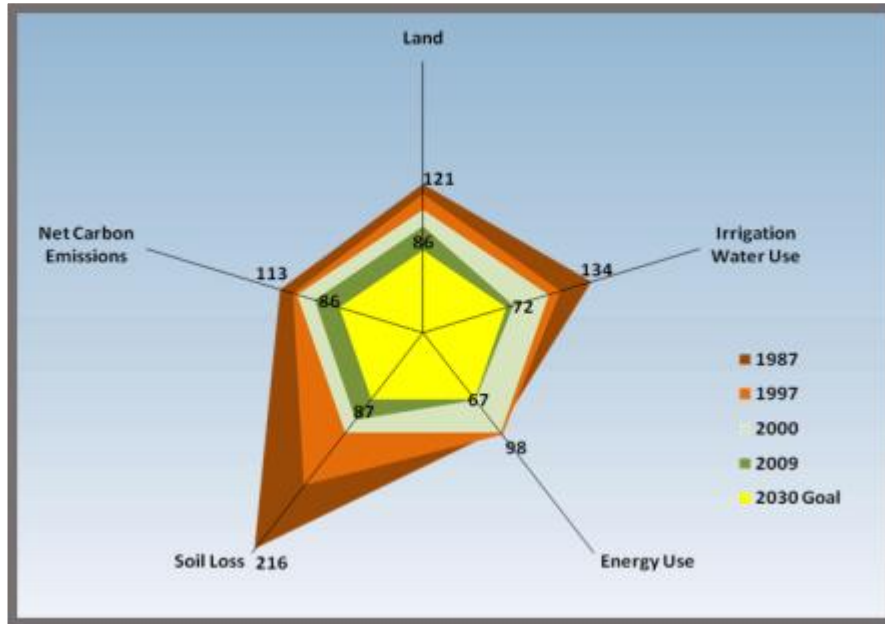
Preserving Resources



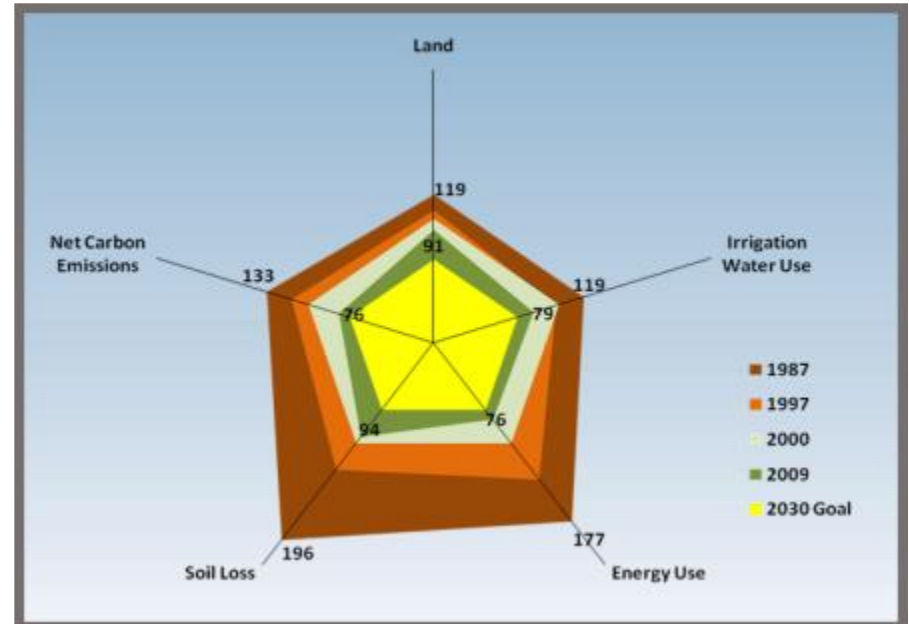


Tom Farms Carbon Footprint

CORN



SOYBEANS



Tom Farms Resources per Unit of Output
Indexed to Year 2000 Actual Values

The Future Farm-Innovation

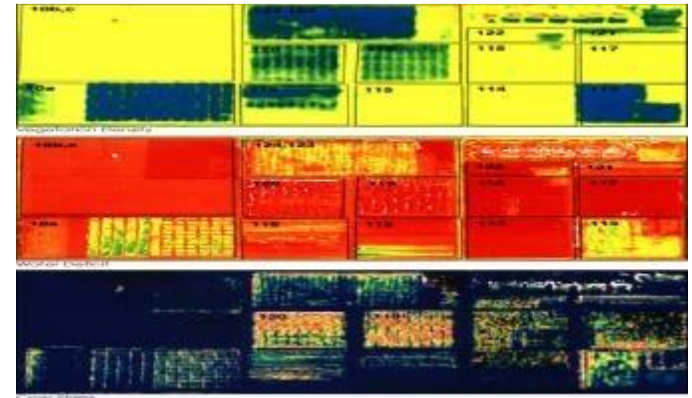
Drivers of Innovation

1. 40 Chances
2. Revolution not evolution
3. Youth interest in careers in Ag
4. Wider understanding of global challenge to feed 9.5 billion
5. University and Higher Ed
6. Financial



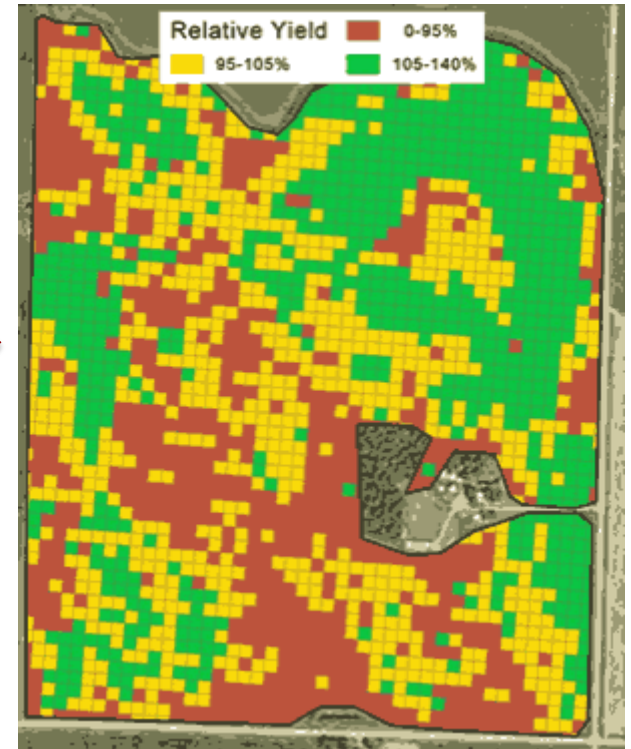
The Convergence of Innovations

1. Biotechnology
2. Information technology (measuring, monitoring and controlling using data science)
3. Mechanical implementation/process control technology



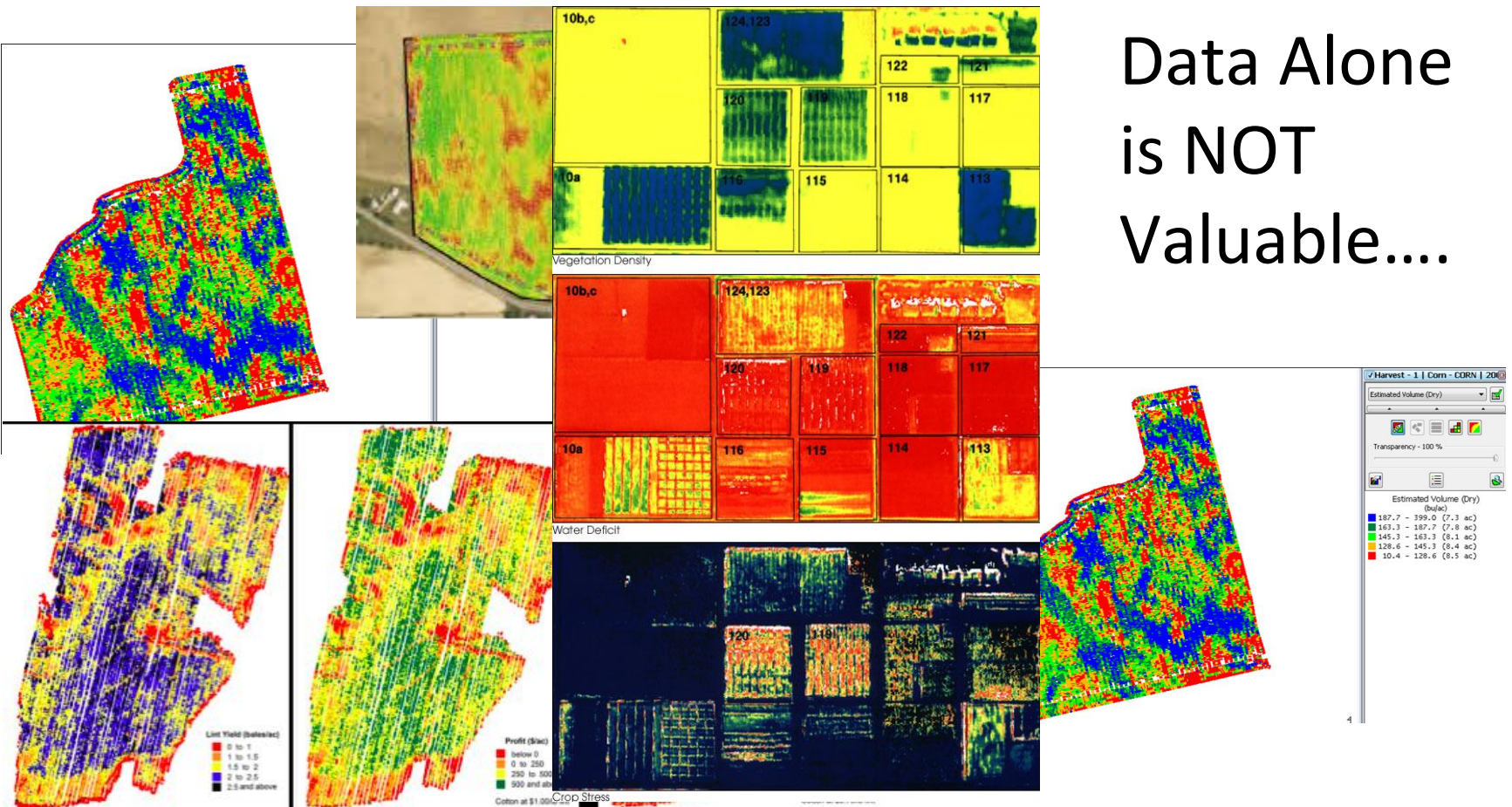
The Analog World is Getting Digitized

Digital Data is a Representation About a Real World Condition



All I Got Was Yield Maps Up to My Ears

Data Alone
is NOT
Valuable....



Quote

“People in both fields (Wall Street and Baseball) operate with beliefs and biases. To the extent you can eliminate both and replace them with data, you gain a clear advantage.

Michael Lewis, Moneyball

Moneyball-Adapt or Die



PIONEER

PRODUCTS AGRONOMY

Programs & Services >

- Digital Resources
- Pioneer Premium Seed Treatment
- PHI Financial Services Inc.
- Payment Options
- PHI Insurance Services Inc.

CLIMATE | BASIC

Better Data. Better Decisions.
The most advanced way to get insight into your fields.

- Weather
- Tracker
- Alerts
- Scouting & Notes

LEARN MORE >>



The Land.db System

The Land.db System gives you the tools you need to easily manage your crop production records across a range of areas from crop plan development to FSA and processor reporting.

[Contact a Specialist](#) [Learn More](#)

- #### Recent News
- [2014 National Farm Machinery Show](#) Jan 24, 2014
Ag Connections will be exhibiting at the National Farm Machinery Show in Louisville, KY on February 12-15.
 - [Thanks To All 2014 Indiana Hort Congress Attendees](#) Jan 24, 2014

Land.db Videos

CLIMATE | BASIC CLIMA

JOHN DEERE

PRODUCTS BY INDUSTRY | NAME



Analytics in agriculture: Driving efficiencies and insight to create "Smarter Agribusiness"



Granular

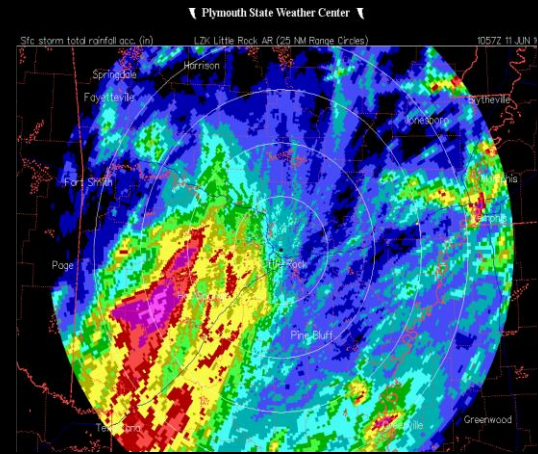
Nutrazone®

BRANDT Seed Rx®

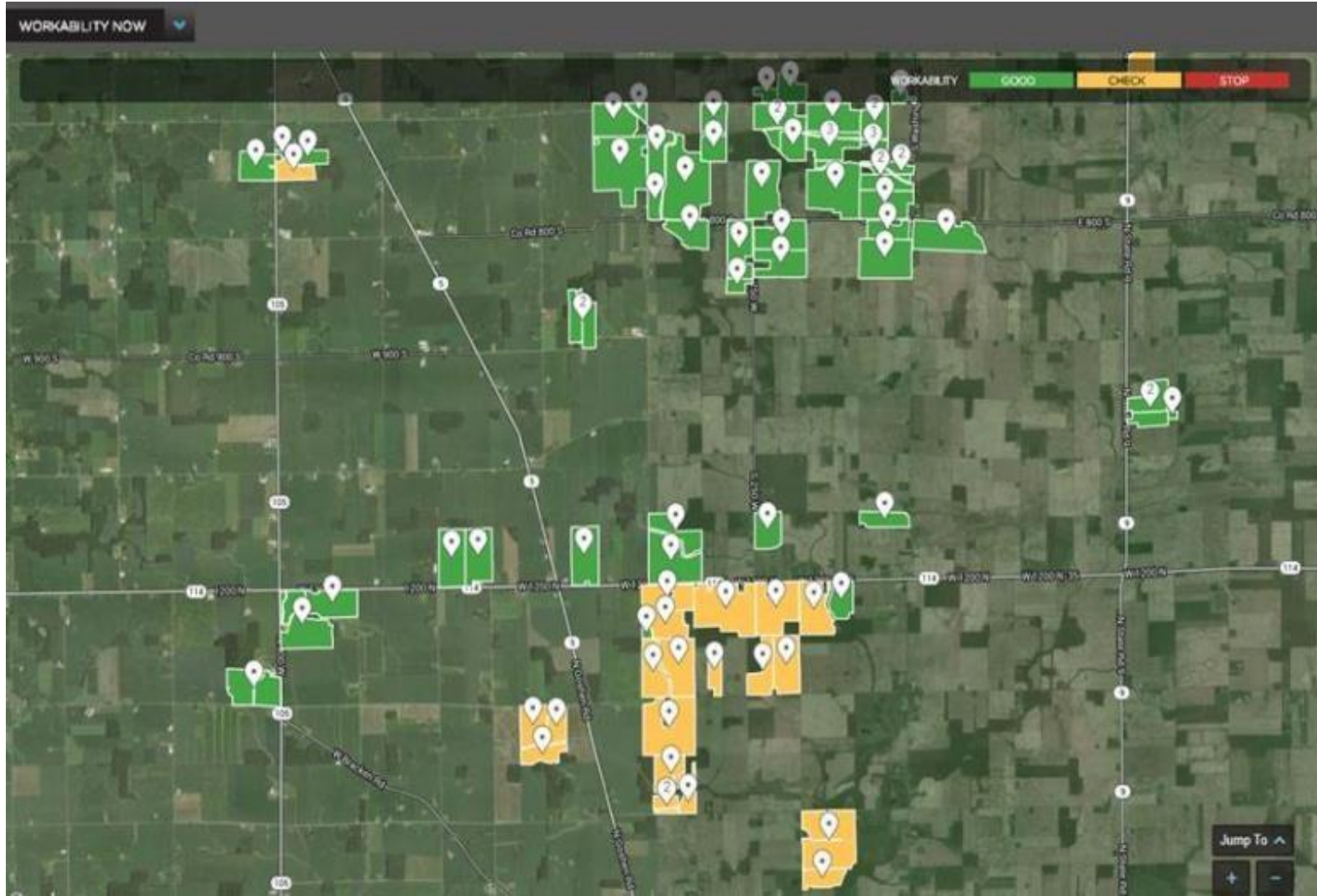
2 hours ago

Bloomington, Ill. and Olath... decision-making. GROWM... level data to producers an... information Services (FS A... Data Transfer, JLink™

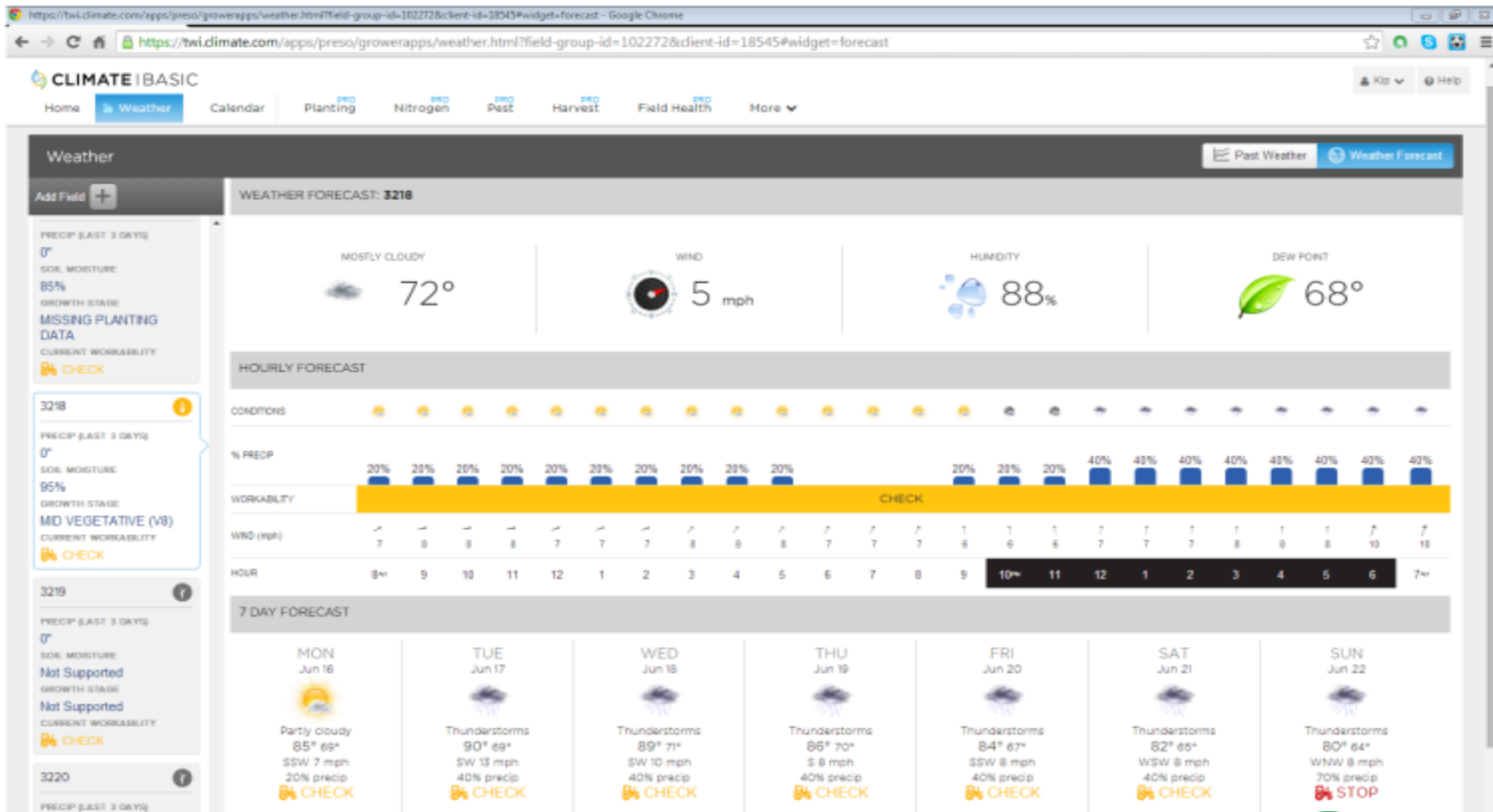
Agriculture Implications: Environmental and Operating Data



Decision Tools



Climate Field Knowledge



Equipment Control and Access

Remote Display Access - Operations Center - Google Chrome
https://my.deere.com/machines/1N04940XPD0028904/rda/canvas

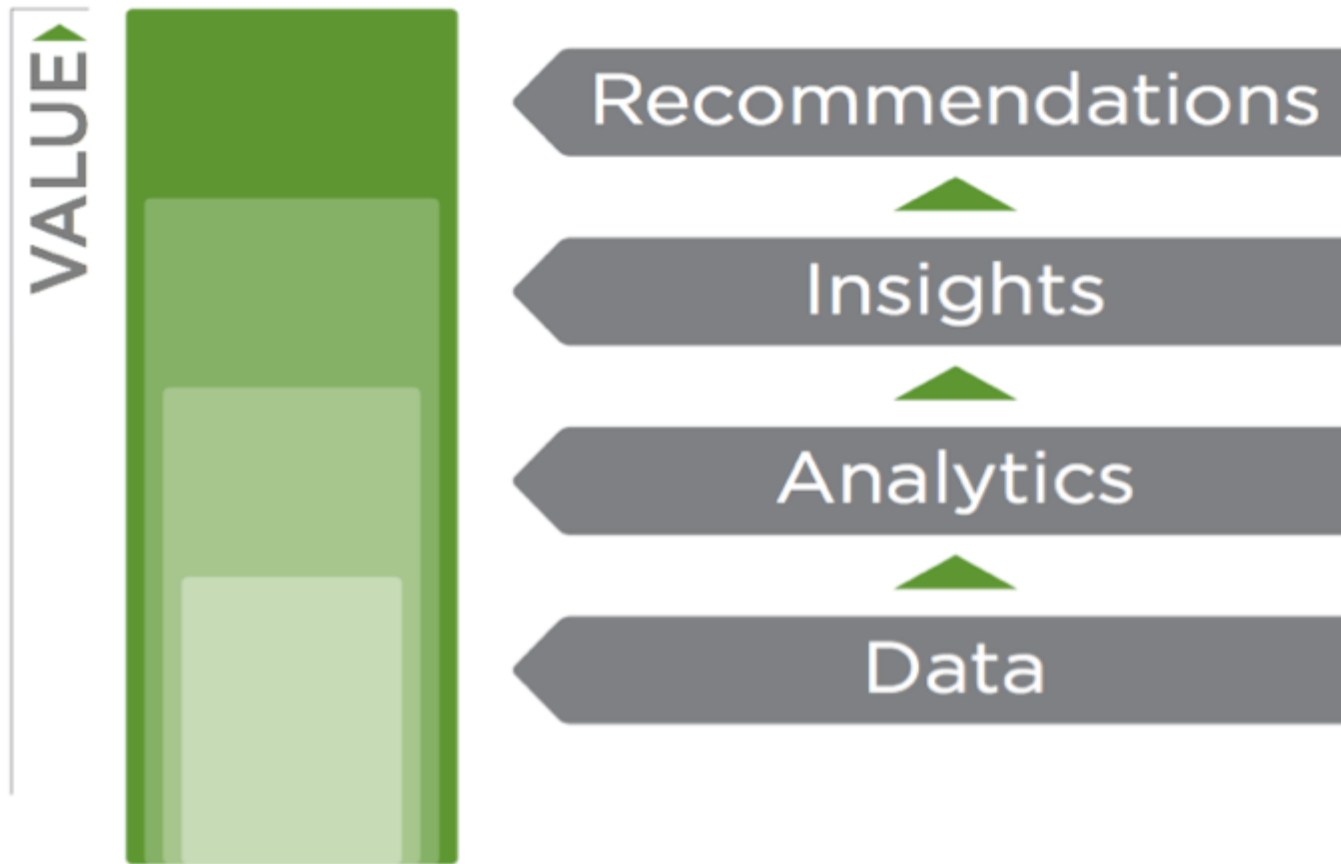
Remote Display Access
Tom Farms 14 4940 904 Spencer (1N04940XPD0028904)

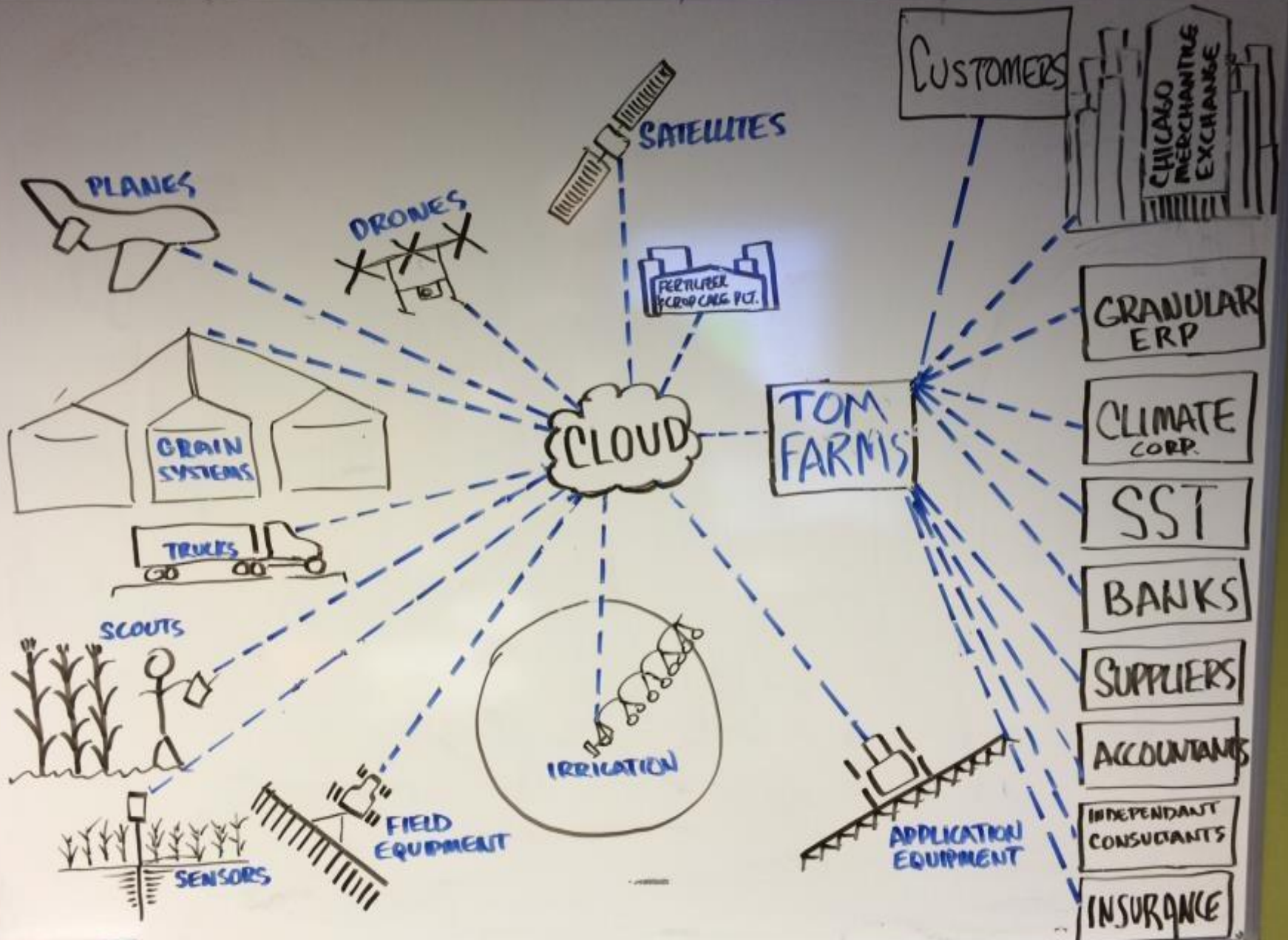
GS3 2630 PCGU2UD464674

JOHN DEERE

The screenshot displays a remote display interface for a John Deere machine. The main area shows a field map with a central lane and side lanes, with a green line indicating the current position. Above the map, there are controls for lane width, currently set to 0 (in). Below the map, there are three rate control panels: Rate 1 (20.0 gal/ac), Rate 2 (25.0 gal/ac), and Rate 3 (30.0 gal/ac). A large central display shows a rate of 20.0 gal/ac and a pressure of 65 psi. Below these are section control buttons labeled L5, L4, L3, L2, L1, C, R1, R2, R3, R4, R5. At the bottom, there are BoomTrac Pro controls for L (30 in), C (35 in), R (34 in), and a Ground button. On the right side, there is a sidebar with client information (Tom Farms & Partner), farm name (Derek Shirley Polk), field name (Derek's), tracking mode (Straight Track), set track (0), and other settings like 116.800 (ft), 3D RTK, and a time display of 7:40 am. An END SESSION button is located in the top right corner.

Insights Deliver Value, Not Data Alone





Weather



Soil Testing



Marketing



Upload Data

Cloud

Production Decision and ERP system

NPK Application



Harvest



Granular

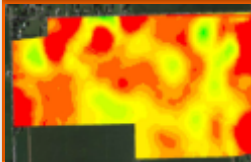
Planting



Irrigation



NDVI & Remote Sensing

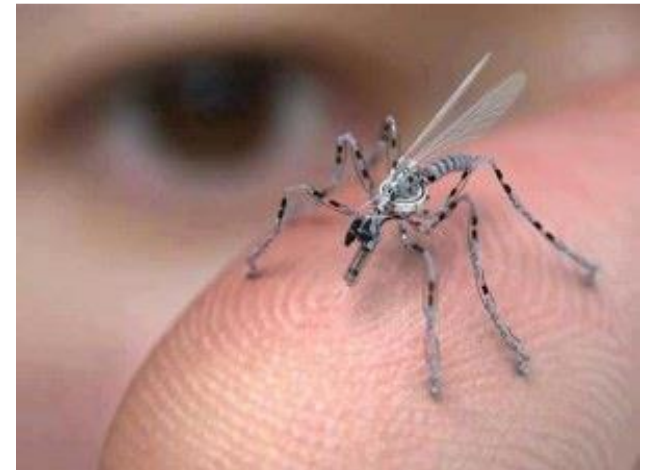



In-Season Application



What does the future hold?

- **Improvement and growth in data to make better cognitive decisions impacting yields at high velocity.**
- **New farm structure models**
- **More sensors.**
- **Improved connectivity in rural areas.**
- **Machine to machine connectivity.**
- **ERP systems driving decisions.**
- **Will likely support food safety laws-traceability.**
- **More crops grown for specific end uses.**
- **Robotic Equipment from drones to tractors.**





“Change is the law of life.
Those who look only to the
past and the present are
certain to miss the future.”



Thanks!

Kyle Tom
Production Manager
Tom Farms

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www.facebook.com/tomfarms

www.tomfarms.com



TomFarms