



07 JUNE 2019

Indigo Atlas Webinar

Indigo GeoInnovation



Agriculture is missing a world-wide “symbolic layer” to organize geospatial information



Digital maps of our consumer world have fueled revolutions in the way we live and work



- Many of the planet's roads, homes, and businesses are now on the digital map



- That map is fundamentally changing transportation, commerce, and advertising



- It is the underpinning that is making self driving transportation possible



We need digital maps of our global food system to fuel the next agricultural revolution



- Today there is no consistent, up to date, digital map of the world's **fields**



- There is no searchable place-system for finding crucial **supply chain** facilities and **transport nodes**



- There is no intelligence layer to anticipate **agricultural production**

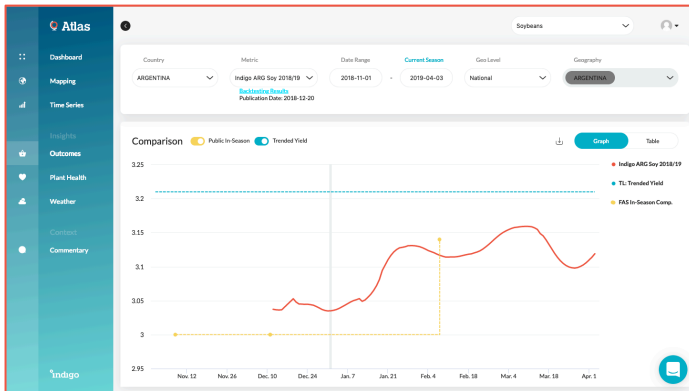
Today, **Geoinnovation** is a division of Indigo focused on building a unique technology, the **Atlas Platform**



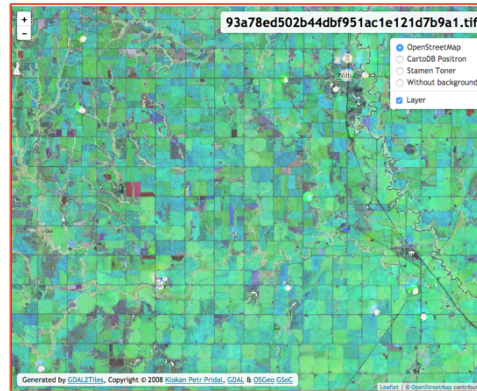
Indigo Atlas is a technology platform that provides **a living map of the world's food supply**; It harnesses data from satellites, aerial assets, ground instruments, and field personnel to deliver **best-in-class agricultural intelligence** on a dynamic database of the world's fields

Today, Indigo has a set of impressive Geospatial capabilities

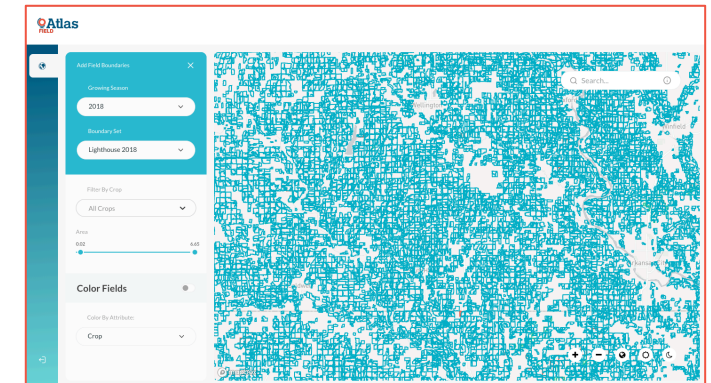
Indigo has **early forecasts of national and regional crop production** worldwide



Indigo offers an **imagery service on every acre**, every day, around the world



Starting in the US, Indigo has a **detailed field-level database** of farm management decisions and ownership along with **predictive tools for growers and buyers**



Indigo Geolnnovation delivers insights and technology to internal and external stakeholders alike

With 3 field data types in 1 platform, Atlas will bring every farm in the world into view



Manual data

Growers' intentions + summaries

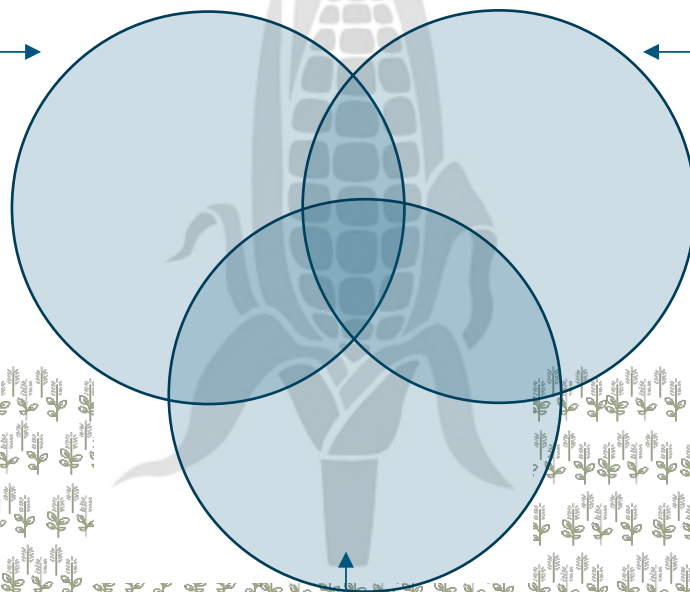
- What was the **intended** planting date?
- What was the **believed** planting rate?
- What are the **planned** field boundaries?



Remote sensing data

Plant health and performance

- How are crops **performing world-wide**?
- How is this field **performing today**?
- What are **weather** conditions today?
- How did things look for the **last 20 years**?



Scouted (manual) data will often be the first line of attack for emergent data requirements



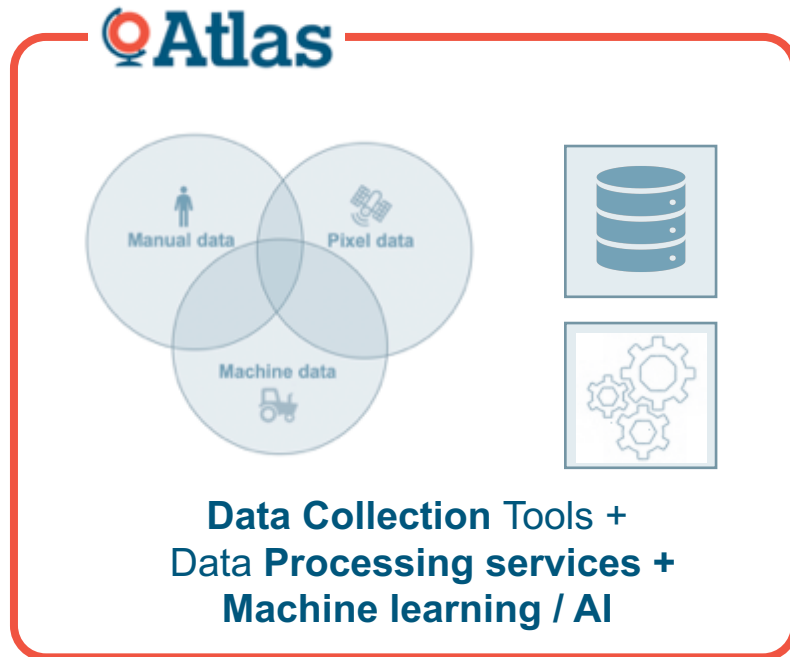
Machine data

Sub-field, enterprise-wide ground truth

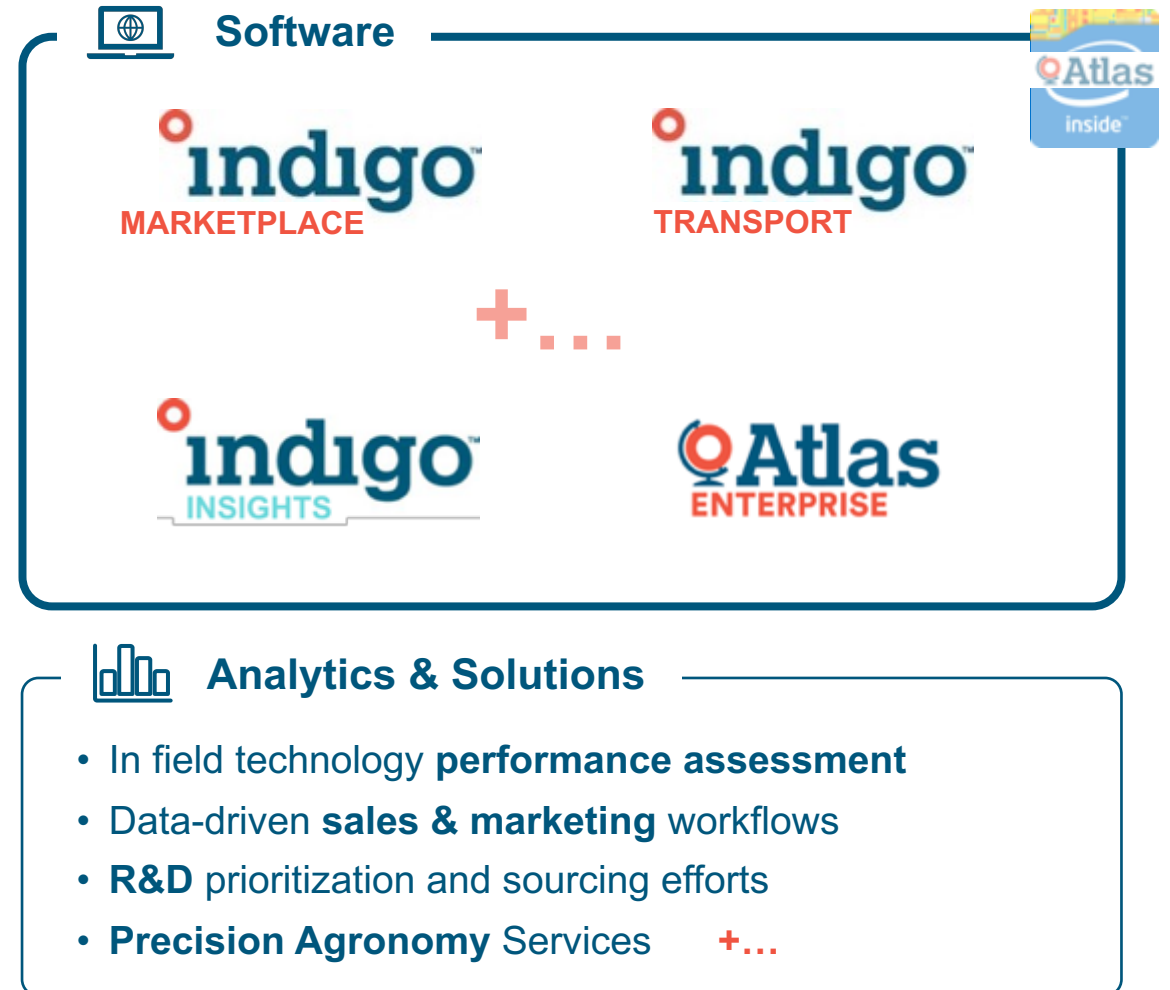
- What was the **exact path, speed, and planting rate** performed by the grower?
- What do **local sensors** like drones, weather stations, and soil probes have to say?

Leveraging all three pillars will deliver more data, faster, and with a clear view of truth


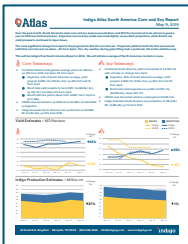
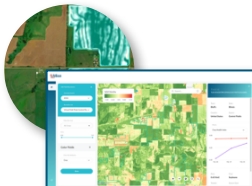
The Atlas platform is a place for **translating** data into **actionable signals** for applications and teams



Powered by:

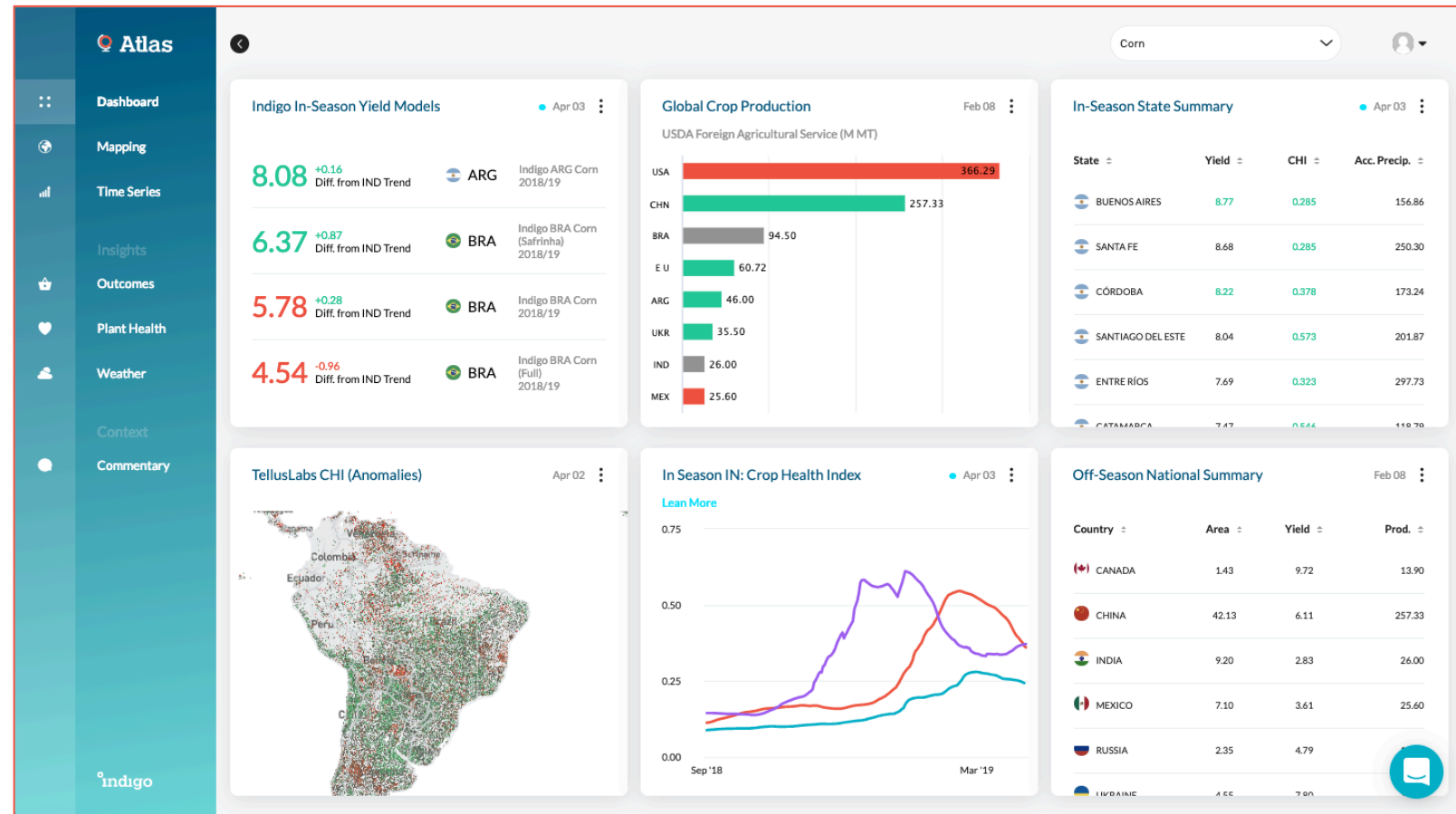
Indigo offers partners **three ways to benefit** from the Atlas technology and team

Atlas Offering for Partners		Description
<div><div>1</div><div></div><div>Atlas Enterprise</div></div>	<ul style="list-style-type: none">Partners have access to Atlas Enterprise software and dataThe product offers yield and production forecasts for key US / Global cropsThe Atlas team performs onboarding training for partners and their key customersOngoing support both in-app and on the phone	
<div><div>2</div><div></div><div>Special Atlas Reports</div></div>	<ul style="list-style-type: none">Partners get special access to in-depth reports on macro and regional trends:<ul style="list-style-type: none">Monthly Crop Production report shared with Partners 2 days ahead of public releaseGrower GeoIntelligence reports are shared for Partner countiesSpecial coverage of key weather & environmental events (such as the Midwest Bomb Cyclone)	
<div><div>3</div><div></div><div>Atlas Solutions</div></div>	<ul style="list-style-type: none">Access to dashboards to view customer locationsSpecial reports on Partner-specific addresses and/or fields and areas with plant health, basis and local bid info (leveraging data from Hedging and Marketplace)In order to provide these solutions, Indigo needs certain data on customer locations and attributes	

Atlas Enterprise answers regional and national questions of crop health and yield

Our software product that helps grain marketers and traders answer macro supply questions

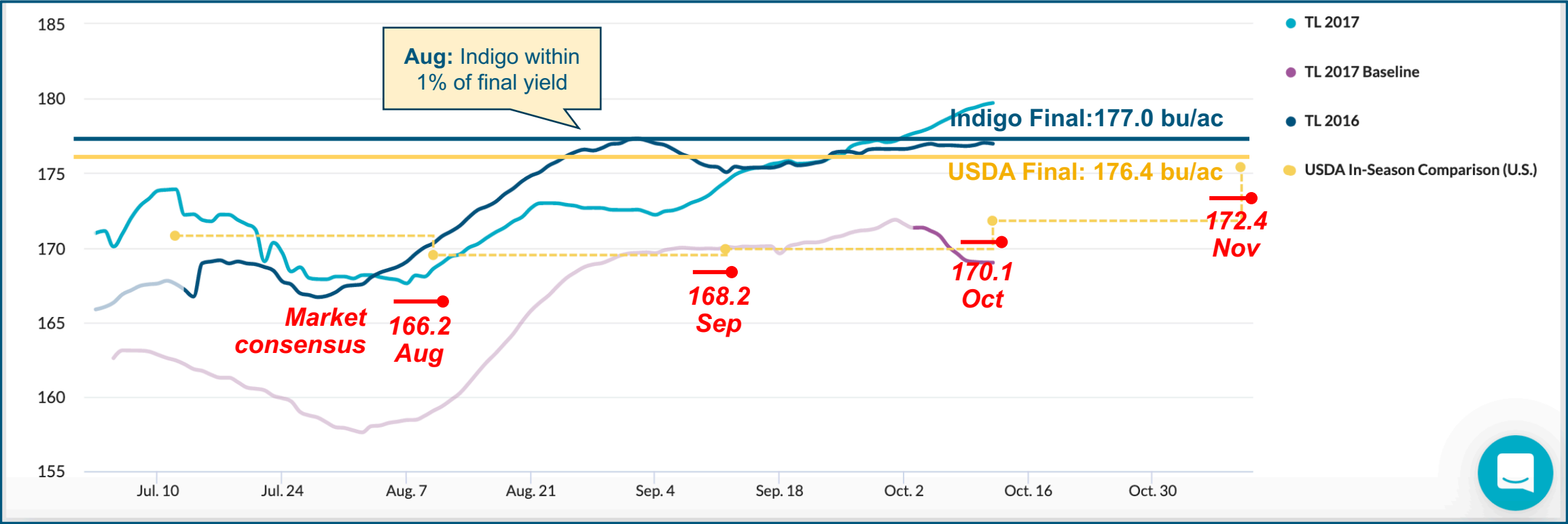
- Unique perspective on supply locally and around the world.
- Crop yield forecasts allow you to make marketing decisions ahead of large market shifts.
- Explore historical data to compare your region to the macro picture.



Atlas models have been able to predict national yield ahead of the USDA and market consensus



In 2017, our US Corn model predicted national yield within 1% of USDA January report... *in August*



Source: TellusLabs, Reuters

We are evolving **Atlas Enterprise** to serve Indigo's partners' needs

New modeling framework with more explanatory detail

- Scenario analysis to discover the factors driving model output, at a global and local scale
- Continued country & crop expansion in 2019

Broader support for partner-specific locations and assets

- Atlas Enterprise will support customer-specific field boundaries, facility locations, & other spatial data assets
- Auto-marked field boundaries and crop type identification will enable organizations to react to build their own spatial assets using satellite-derived building blocks

Fresh alerts built on new field-scale imagery & new instruments will support fast-acting change detection

- Configured alerts will enable organizations to react swiftly to changing conditions



Atlas in Action: Grower “GeoIntelligence Report”

Crop Health
Information from
GeoInno

County of
relevance for the
Partner



Winter Wheat GeoIntelligence Report May 15, 2019



Saline County, Kansas Regional Overview

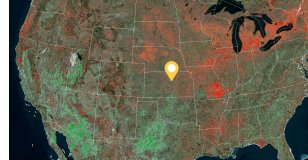
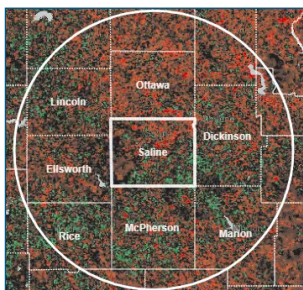
Indigo tracks factors that matter to your profitability - the productivity potential in your county and basis trends. Indigo's proprietary Crop Health Index (CHI) uses daily satellite imagery to assess the greenness of a crop's canopy. A crop's CHI, which combines chlorophyll content and density, strongly correlates with total biomass and yield.

Closely tracking the relative timing and level of CHI for a production region, can give an early read on the overall production, which can inform the timing of marketing decisions. Pairing this information with basis trends will give you a better sense of when to sell your crop to maximize productivity.

Crop Health Anomalies

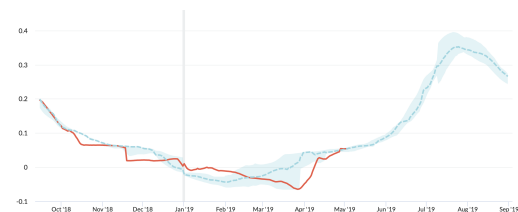
Crop health anomalies (shown on map in green or red) indicate positive or negative change in crop health index relative to the 10-year average

Standard Deviations from 10 Yr Avg.



	LAST SEASON	THIS SEASON
Growing Degree Days January 1 - April 17	953	550
Cumulative Precip, inches January 1 - April 31	11.7	7.3

Crop Health Curve



The CHI curve compares the current season (in red) to 10-year trends (in blue); shaded area show the 20-80% range

50 South B.B. King Blvd | Memphis, TN 38103 | (844) 828-0240 | info@indigoag.com | www.IndigoAg.com



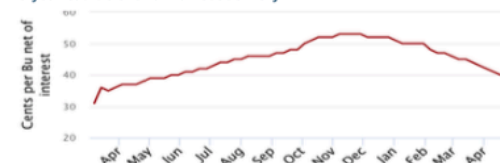
Winter Wheat GeoIntelligence Report May 15th, 2019



Saline County, Kansas Regional Overview

When To Set Basis

5-year basis trend for harvest delivery



Historical basis trends shows how basis moves in your county as harvest approaches.

When To Deliver

Net profit for delivery by month



This chart shows the cash carry of when is best time to deliver grain net of an assumed 5% financing cost; positive numbers reflect positive return relative to carrying costs

Where To Sell

Best Bid From Marketplace

	Cash price, \$	Est. Mileage	Delivery location	Price net of transport
May-19	\$ 4.00	12	Ellinwood, KS	\$ 3.77
Jun-19	\$ 4.36	44	Hutchinson, KS	\$ 4.16
Jul-19	\$ 4.40	80	Wichita, KS	\$ 3.86
Aug-19	\$ 4.11	28	Great Bend, KS	\$ 3.88
Sep-19	\$ 4.51	79	Wichita, KS	\$ 4.16
Oct-19	\$ 3.99	42	Hutchinson, KS	\$ 3.81
Dec-19	\$ 4.75	45	Stafford, KS	\$ 4.55

We have estimated freight costs to find the best bid net of transportation costs for your farmby delivery month. Make deliveries easy by hiring Indigo Transport to haul for you

Sign up or log into Marketplace to find the best current bids available to you growers.indigoag.net

50 South B.B. King Blvd | Memphis, TN 38103 | (844) 828-0240 | info@indigoag.com | www.IndigoAg.com

Historical basis
info from our
Markets team

Net profit by
month based on
cash carry

Best bids from
marketplace /
DTN

Atlas in Action: Covering the Bomb Cyclone

Rapid analysis of evolving events is provided *first* to Partners

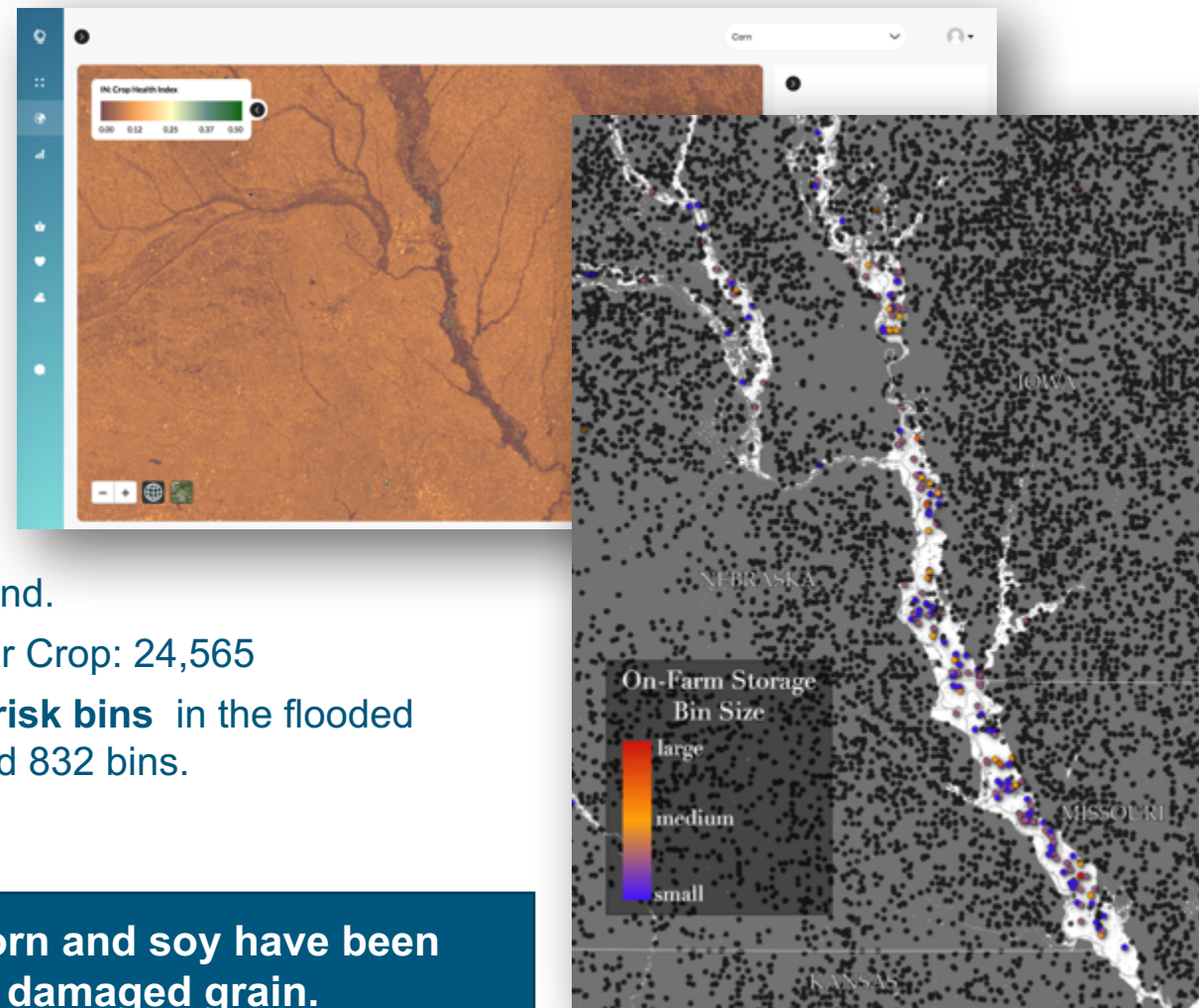
“Indigo is working to guide farmers through this tough time by helping them market whatever stored crops that are not affected. As water recedes, we will help assess the damage to their affected stored production.”

- Eddie Daily, Mount Ayr, Iowa
Indigo Account Manager

Based on analyzing satellite imagery of **more than 240 million acres** (across NE, IA, KS, IA, IL, IN, MO) from **March 15 to April 07**:

- Nationally, we observed **over 1 million flooded acres** in the wake of the storm, **80%** of which (~840k acres) is cropland.
 - Major crop acreages: Corn: 337,210; Soy: 481,237; Other Crop: 24,565
- Indigo has determined that we are now approaching **4,000 at-risk bins** in the flooded area, a **4.75x increase** from our initial look which had identified 832 bins.
 - Over half** of the at-risk bins are in Iowa (2,078)

Overall, we estimate that 21.8m - 37.6m bushels of corn and soy have been impacted, equivalent to \$102m-\$176m worth of damaged grain.



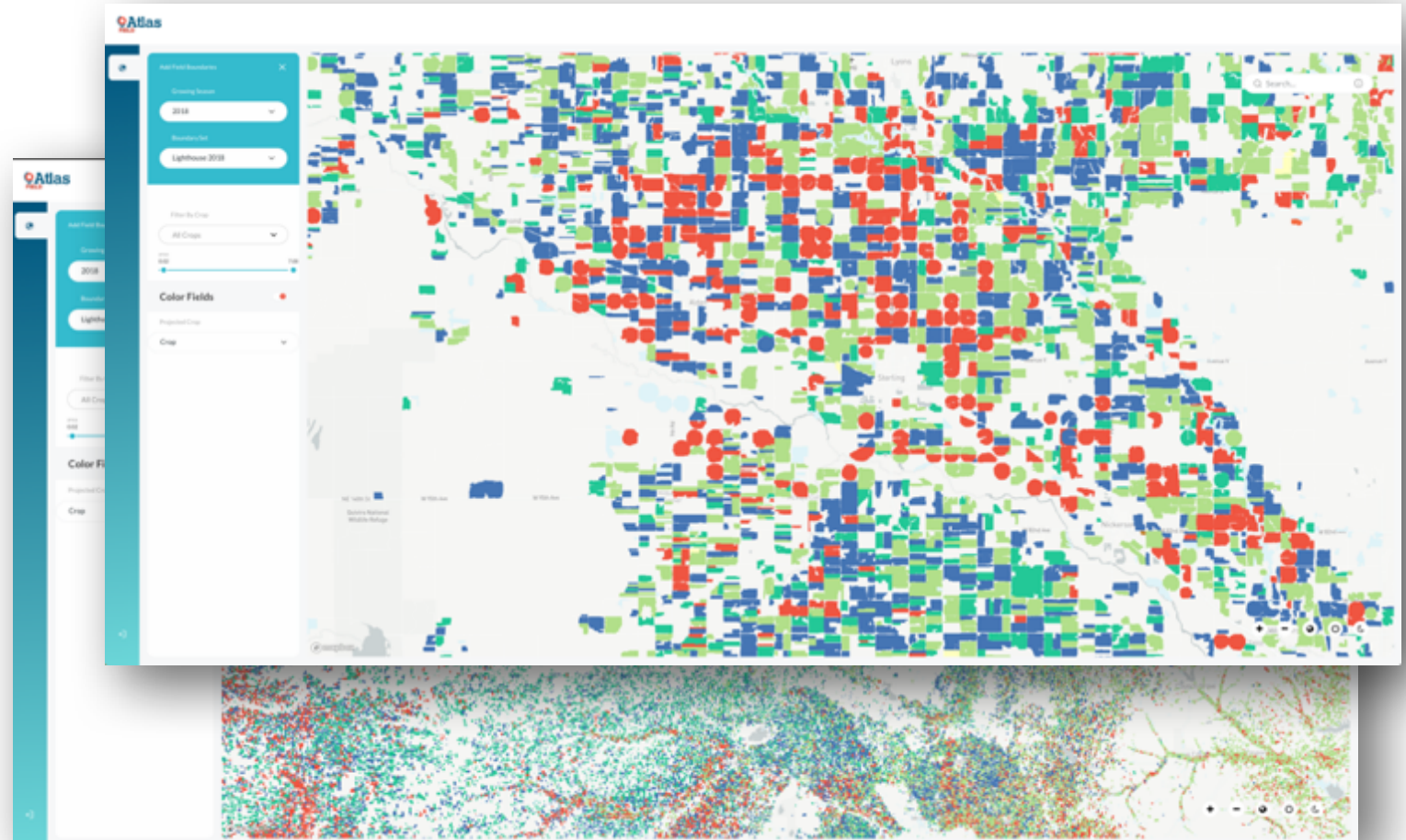
Our team of data scientists can help you use Atlas to generate new insights for your customers

Across the Corn Belt, Atlas has “wall-to-wall” **boundary** and **crop type** identification on ~10m fields.

In combination with certain customer data you provide, we can use this database to solve your business problems, including:

- Crop health and supply for your customer regions
- Basis recommendations for your customer locations
- Buyer locations near your customers

Atlas can help you have better conversations with your growers



Thank You!

Any Questions?