

Drone Use on Research Farms

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**We are the leading independent
imagery data partner for
agricultural field research**



**US and Canadian
Drone Services**

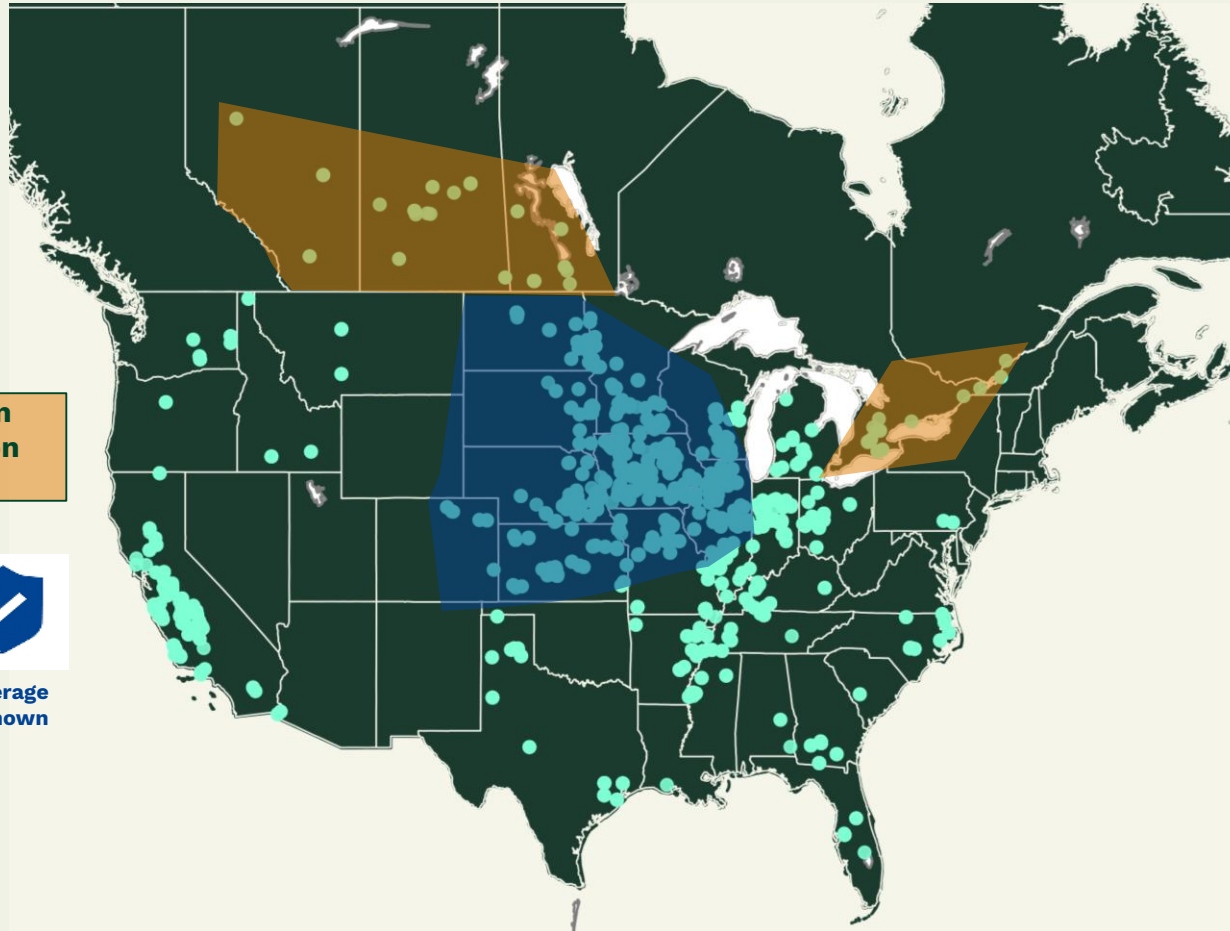


Analytics & Data Management

A Scalable Data Ingestion Pipeline



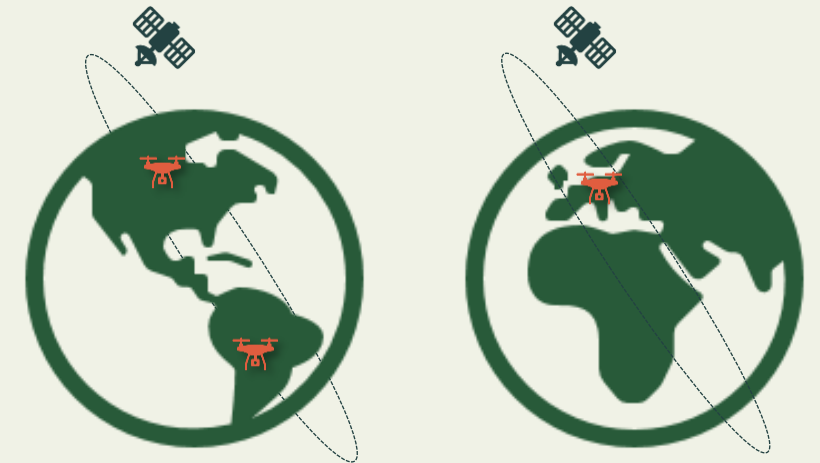
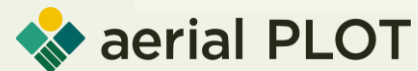
USA and Canada Coverage (Internal Network >97%)



Canadian
Expansion
in 2026



regional coverage
shown



Global Coverage
(Local UAV pilots or
satellite imagery provider)

Accurate, Automated Field Data

Canopy Metrics

Biomass (Leaf Area)

Vegetation (NDVI)

Plant Health (NDRE)

Nitrogen Uptake

Uniformity

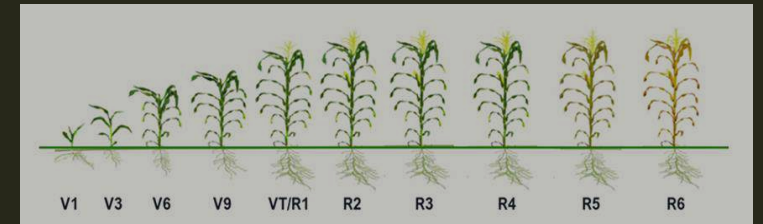


Temporal Dynamics

Growth Models

Rate-of-Change

Cumulative (AUC)



Data Ontology

Quality Control

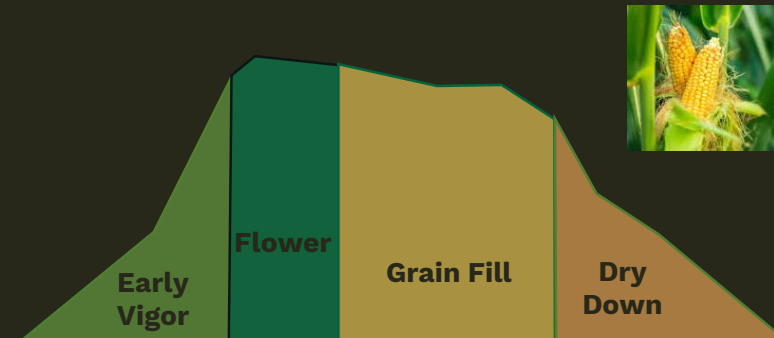
Annotations/Tags

Geospatial Insights

Heatmap Viewer

Data Layers

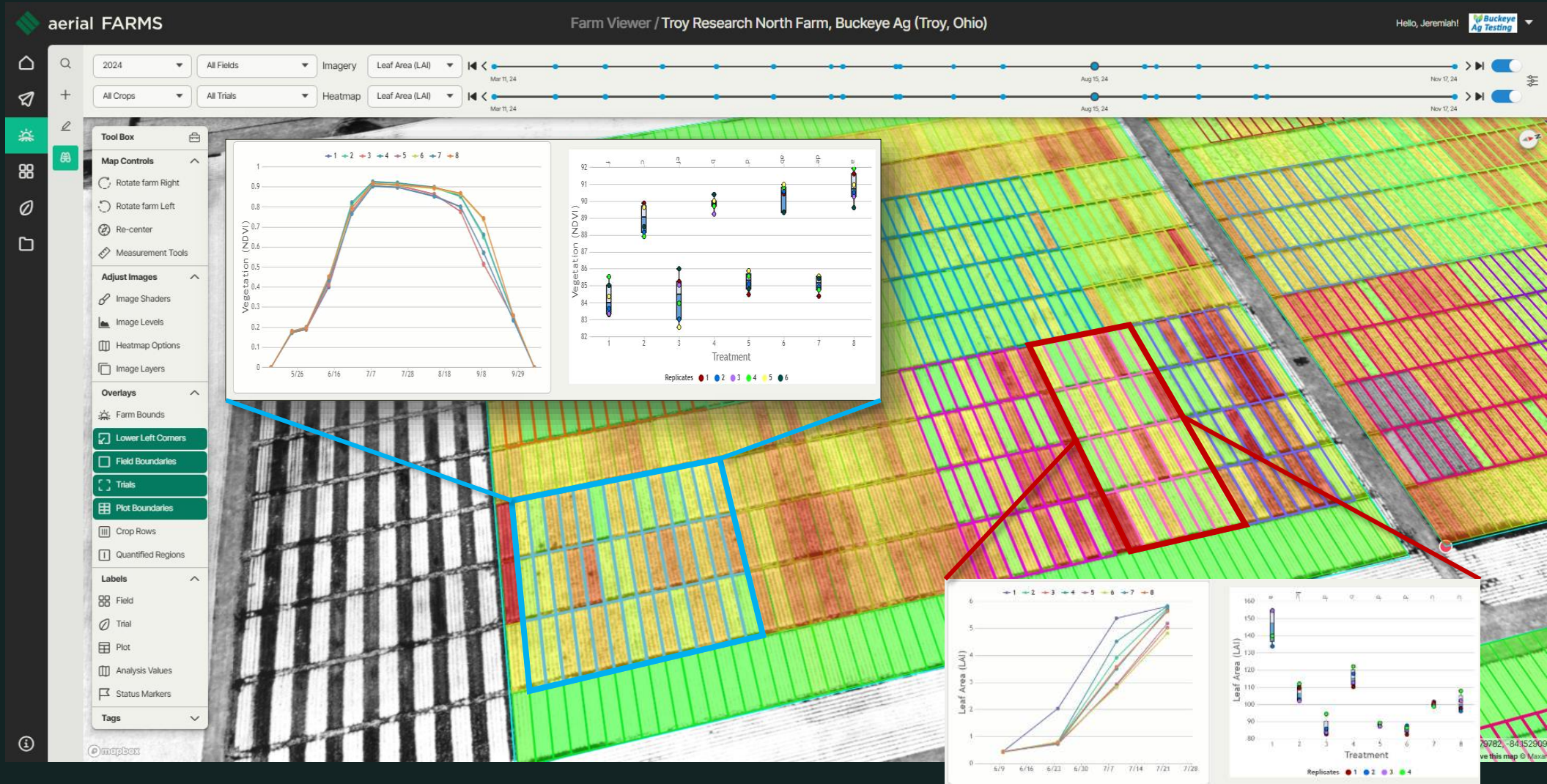
Statistical Models



Drone flights on a 2-week cadence



Intuitive Cloud Software



Dashboards and geospatial viewers focused on collaboration & driving business decisions

A Data Sharing Solution

Whole Farm View



Client A View



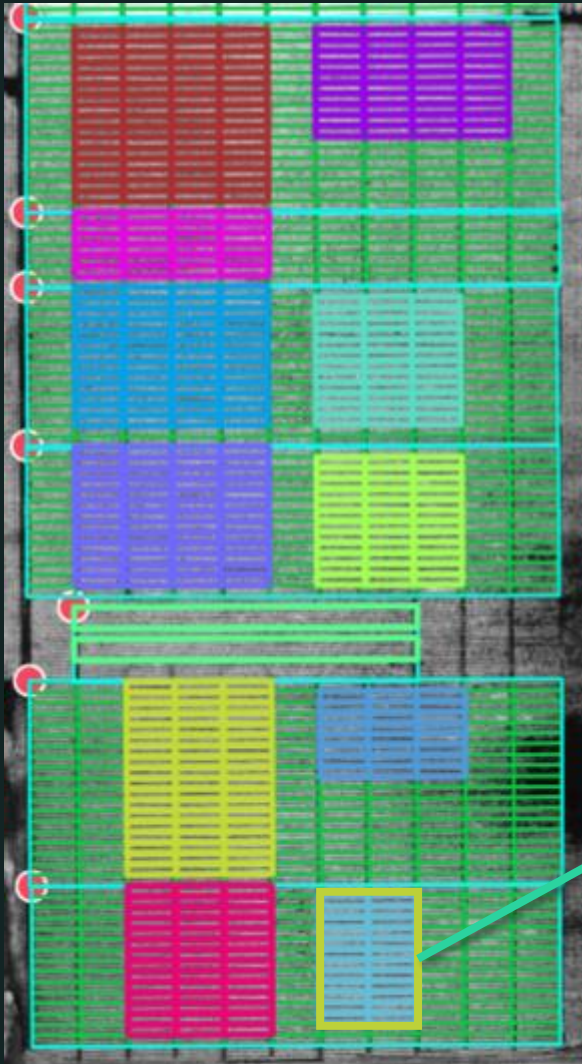
Client B View



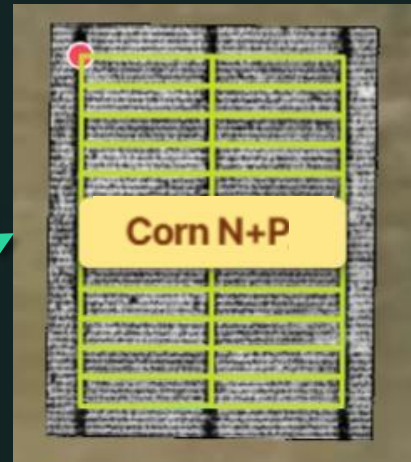


Extracted Data & Stats-Based Dashboards

Research Farm View
(Imagery as Captured)

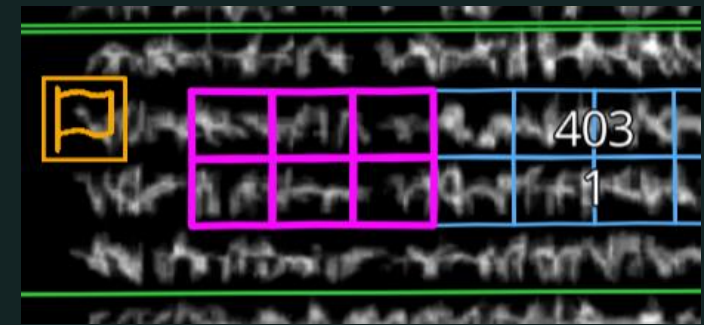


Treatment	Yield		Early Growth			Senescence		Full Season	
	Adjusted Yield		Early Vegetation	Early Vigor	Late Plant Health	Late Vigor	Total Plant Health		
#	Name	11/10/2023	5/25/2023 - 8/9/2023	6/5/2023 - 7/19/2023	8/9/2023 - 10/11/2023	9/7/2023 - 10/11/2023	5/25/2023 - 10/11/2023		
1	UTC	132.03 b	39.16 c	74.79 c	27.98 c	79.96 b	53.2 c		
2	MAP	149.6 b	40.02 b	79.44 b	29.54 b	82.57 b	55.62 b		
3	UREA	219.56 a	39.93 b	79.81 b	36.2 a	93.23 a	63.75 a		
4	UREA + MAP	236.43 a	41.02 a	85.78 a	35.84 a	90.25 a	64.49 a		
Global Mean		184.405	40.03165	79.95698	32.39145	86.50214	59.26719		
CV		9.33857	1.07851	3.03222	4.09904	6.53155	2.99962		
P-Value		<0.00001	0.00019	0.00012	<0.00001	0.00901	<0.00001		




Individual Trial View
(Restricted to Client)

Annotations





	Farm Viewer License*	Standard License
Interactive GIS Viewer	✓	✓
Publish/Share Trials	✓	✓
Access/Export NASA  Weather Data	✓	✓
Import Ground Data	✓	✓
Data Layer Heat Maps	Shading Only	✓
Trial Analysis Dashboards	Box Whisker	✓
Flags/Exclusions	View Only	✓
Farm/Field/Trial Editor	-	✓
Export Field/Trial Data	-	✓
Protocols (Multi-Site Data Aggregation)	-	✓

*License to view imagery generated by aerialPLOT. Includes 5 users, license period May 1st through April 30th. Must

Contract Considerations



- **Confidentiality**

- **Client Obligations**

1. Secure all required permissions and deliver all required notifications to the owner(s) of any trial site
2. Ensure that drone service provider (DSP) has physical access to the trial site, along with appropriate buffer space of approximately one hundred (100) feet around the trial site and the airspace overhead
3. Provide accurate information on trial location (4-corner GPS points), and if necessary, physically showing the DSP the trial location

- **Information Warranty**

Client must ensure that accurate information is provided to DSP in a timely manner. DSP is not responsible for impacts due to inaccurate data, or failure to conduct drone flights due to absence of or insufficient information

- **Insurance**

- **GCP Installation**

Considerations above are for informational purposes only, and do not constitute legal advice

Communication Protocol

- **First Visit**

- Takes the longest: we need to locate each contracted trial and setup drone flight plans
- We want to meet the CRO in the field to help show us trial locations on first visit
 - Staked or clearly marked trials reduce time in the field
 - If GCPs are not required per client protocol, we place them down next to the trials
 - Determine preferred parking area and preferred CRO point of contact

- **Recurring Visits**

- Recurring flights occur approximately ever 10-14 days after first visit
- Typically, the drone can be taken off from field entrance/driveway and pilots often don't re-enter the field
- CRO presence isn't required on recurring flights
 - aerial PLOT wants to be in and out as quickly as possible
- Email or text are typically sent out the Friday before the next visit and then reminder/update texts are sent typically day before
 - Weather and other travel factors often change our schedule
 - aerial PLOT gives as much heads up as possible



aerial PLOT

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