Ohio State University Digital Ag Program

Farm Data Stewardship for Supporting Research
Ohio State Digital Ag Program

https://digitalag.osu.edu

TEACHING: 4 digital ag courses + graduate student program

RESEARCH / EXTENSION: International presence in conducting research and delivering education.
Challenges

• **Data Integrity and Accuracy**
  • Organized data for discovery and research consumption
  • Reinventing the wheel
  • Stating public versus private

• **Legal aspects** (public institutions – maintain privacy and security?)

• **Farm / field data that drives science.**
eFields represents an Ohio State University program dedicated to advancing production agriculture through the use of field-scale research.

https://digitalag.osu.edu/efields
eFields

- Data collection
  - Manual
  - Multiple log-ins to cloud platforms

- Needs
  - Improve data flow efficiency
  - Centralized but ag connected repository
  - Data sharing
  - Maintain farmer trust
In-cab Displays

- Pro 700 (Case IH)
- 20/20 SeedSense (Precision Planting)
- FMX 1000 (Trimble)
- FMX (Trimble)
- JD 2630
- JD Gen 4
- Raven Viper Pro
Hardware
• EZ Pilot (Trimble)
• AutoPilot (Trimble)
• Veris iScan (Veris)
• DTN Weather Station
• CropMetrics Stations
• Field Scout TDR 300 Soil Moisture Meter (Spectrum Tech)
• Soil Cone Penetrometer (Spectrum)
• Laptops (Dell)
• 3D Printer
• iPad (8)
• Assortment of Cell Phones (iOS and Droid)

Software
• SMS Advanced (Ag Leader)
• ArcGIS
• Field Fusion (Veris)
• Soil Viewer (Veris)
• Trimble FarmWorks
• Google Earth
• Vector Canoe 9.0
• BOX
• MS Excel
• MS Word
• Solidworks
• GrabCAD
Apps

- Case IH MyShed
- JD Operations Center
- FarmServer by Beck’s
- Climate Fieldview Cab
- Air Scout
- OSU PLOTS
- Encirca
- Research Pogo (Precision Planting)
- VO Grow (Cropmetrics)
- MyDTN
- MyRadar
- Davis Link 2.0
- BOX
- Google Sheets
Digital Agriculture
Providing solutions to meet world demand

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Ohio State Precision Ag Program
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ADC Demo

#NutrientIntel
#DataIntel
Non-Profit
- Focused on education & outreach for ag data
- Interface point for Universities and other research organizations
- Receive or administer grants from government/research organizations

Co-op
- Primary interface point for farmers and ag service providers
- Manage commercial operations and user support
- Participate in pilots and proof of concepts with USDA agencies and other industry projects
WHAT THIS MEANS

TRANSFER – Simple upload from USB, or connect to clouds – AGCO, AgLeader, Climate, CNHi, John Deere, Raven...

ACCESS – Desktop, Mobile, Tablet...

SHARE – Permissioned access to: Trusted Advisors, Staff, Insurance Agent; whomever, whatever. File, folder, project, one or many people, even set an expiration date
Goal

Organizations focused on building environment, promoting data use & sharing, and engaging with the broader industry

Solid environment for numerous land-grant universities to use for ag data management and storage

Farmers controlling and using the data generated on their farms

Platform to educate the ag industry on proper data collection and storage enabling AI and other tools

A real step forward toward solving socioeconomic issues like climate change, food security and traceability
• **Non-Profit**
  - Join today to support the mission of the ADC
  - Universities and other research organizations, sign up for an account
  - Have a research project or grant proposal we could help support or facilitate, let us know

• **Cooperative**
  - In the process of forming the organization
  - Creating governance structure and initial financing
HOW CAN I USE THE ADC FOR RESEARCH?
Register for a (US Based) account at https://web.agdatacoalition.org/register

WEB:
www.AgDataCoalition.org
Join our mailing list to stay in touch!
Become a member

SOCIAL MEDIA:
Follow us on Twitter @AgDataCoalition
Follow us on LinkedIn

EMAIL:
Join@AgDataCoalition.org

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FOUNDING MEMBERS

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