

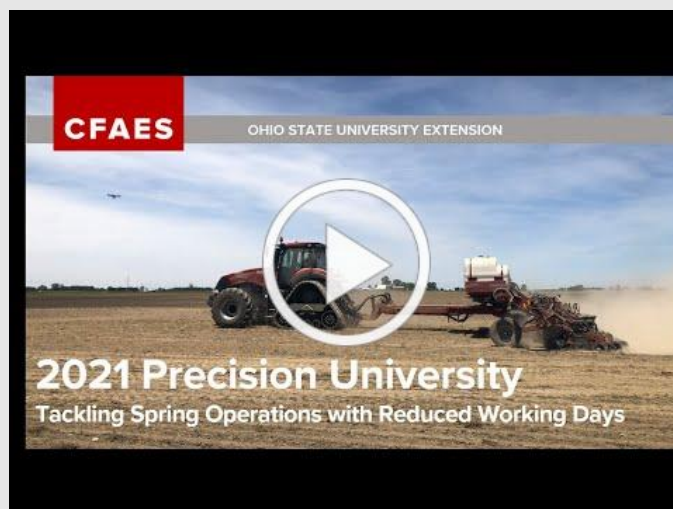


Winter Update

Now that harvest 2020 has wrapped up, it is already time to start making decisions for the next growing season and preparing for spring operations. In this edition of the Digital Ag Download, we have highlighted resources from our team that you can use to make these decisions a little easier, including information for the 2021 Precision U, featured articles, recent publications, and more. Be sure to share this newsletter with anyone who may be interested; we hope you enjoy! – The Ohio State Digital Ag Team

Digital Agriculture at OSU

2021 Precision U: Tackling Spring Operations with Reduced Working Days



Join us for the 2021 Precision U! Changing weather patterns have led to fewer days available in the spring to complete planting, spraying, and

fertilizing. University and industry experts will share research results and technology available to help you work smarter and more efficiently.

To register, go to <http://go.osu.edu/PrecisionU> or click on the button below.

Register

Join us every Tuesday morning at 10:00 AM for these
#AgTech Tuesday sessions:

- **January 5 - Gambling with Planting Decisions** - Dr. Aaron Wilson (Ohio State University Extension) and Dr. Bob Nielsen (Purdue University)
- **January 12 - Improving Fertilizer Efficiency with the Planter Pass**- Matt Bennett (Precision Planting Technology) and Dr. John Fulton (Ohio State University)
- **January 19 - Pre-season Crop Protection Decisions**- Dr. Mark Loux and Dr. Scott Shearer (Ohio State University)
- **January 26 - Sprayer Technology to Improve Field Performance**- Dr. Joe Luck (University of Nebraska-Lincoln)

Featured Articles

Tillage Technology Breaks New Ground

Prescriptive tillage is growing in popularity as farmers strive to boost agronomic, economic and environmental performance. Farmers can prescriptively vary the depth and intensity of tillage equipment on-the-go based on field and agronomic conditions, much like variable rate seeding.

[Read more](#)
[ocj.com](#)



Talking Technology with Scott Shearer

Universities and colleges have had to rethink and revise the way they educate students and this is particularly true for



Soil compaction: Silent yield thief

Soil compaction continues to be a concern in Ohio as both precipitation during the spring and fall along with farm equipment size have dramatically increased the

precision ag undergraduates accustomed to hands-on, in-field learning.

[Read more](#)
www.precisionfarmingdealer.com

potential for compacting soils. Heavy farm machinery and...

[Read more](#)
ocj.com

Ohio State-Integrated Ag Services Partnership Takes Field Scouting to the Next Level

It's no secret that farming has become increasingly high-tech, but a partnership between The Ohio State University and an Ohio agribusiness is taking things even further with new field scouting technology that involves a drone and artificial intelligence (AI).

[Read more](#)
precisionag.com



Planning early is a key to effective on-farm research

By Dusty Sonnenberg, CCA, Ohio Field Leader Most Ohio farmers will agree that 2019 will go down in the history books as a year with tremendous variability. For those who conduct on-farm research, variability is one thing they attempt to reduce....

[Read more](#)
ocj.com



Dr. John Fulton Reviews Progress & Challenges in Digital Ag

Agriculture has made enormous digital strides in the past 5-10 years with real benefits to farmers, but challenges still remain, according to Dr. John Fulton with the Precision Ag Program at The Ohio State University.

[Read more](#)
www.aggateway.org

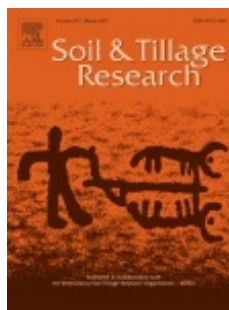
On-Farm Research Takeaways in Ohio's State's eFields Report

On-farm research can be a valuable tool when finding ways to improve profitability on your farm. Precision agriculture technologies make conducting on-farm research simpler than ever before.

[Read more](#)
precisionfarmingdealer.com

Featured Research

This research paper, led by Dr. Sami Khanal, was just published with several of the Digital Ag Team members. This research outlines the use of remote sensed imagery for identifying soil compaction due to machinery traffic and its impact on corn yield.



Assessing the impact of agricultural field traffic on...

With the increase in the physical size of agricultural field machinery, producers can experience negative effects of machinery-induced soil compaction on soil health and crop productivity. Traditionally, the impact of compaction from machinery...

[Read more](#)

www.sciencedirect.com

2020 Farm Science Review

Did you catch our work during this year's online Farm Science Review? Click on the button below or see these featured demonstrations for anything you might have missed!

Demonstrations



Case IH AFS Connect Steiger 580 QuadTrac with AccuTurn

[Read more](#)

digitalag.osu.edu



Case IH EcoloTiger 875 Disk Ripper with AFS Soil Command

[Read more](#)

digitalag.osu.edu



John Deere S770 Combine with 708C (8-Row) Corn Head



Hyllo AG-116 Spray Drone

[Read more
digitalag.osu.edu](https://digitalag.osu.edu)

[Read more
digitalag.osu.edu](https://digitalag.osu.edu)

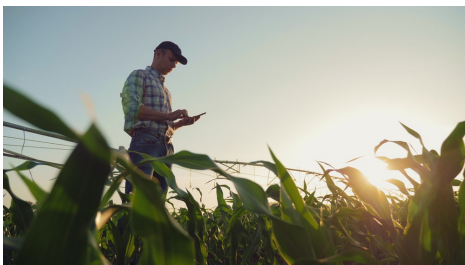
Featured Videos and Podcasts

Check out this video from the Tri-State Precision Ag Webinar, featuring Ohio State's Dr. Elizabeth Hawkins and Dr. John Fulton talking with other experts on how to better take advantage of the technology available to the farmers.

Tri-State Precision Ag Webinar



Precision Points, an ag tech podcast from precisionagreviews.com, strives to bring you unbiased precision ag information and ideas. Check out these episodes featuring our very own from Ohio State.



Podcast: 01. John Fulton - Precision Points Welcomes...

Precision Points is dedicated to providing unbiased ag tech information and ideas, so we have decided to team up with John Fulton, Ph.D. to get insights on what works on the farm, and what ideas hold up to field level, independent research.

[Read more
www.precisionagreviews.com](https://www.precisionagreviews.com)



Podcast: 06. John Fulton - On-The-Go Manure Sensors

Is pulling a pit sample a fair representation of your manure application? With the help of near infrared sensors, you can now monitor exactly what is being put on our field (both volume and nutrient make-up) and map what you are measuring.

[Read more
www.precisionagreviews.com](https://www.precisionagreviews.com)



Podcast: 07. Glen Arnold - Side-Dress Manure Applications

Manure is a valuable resource for livestock farmers, but timing and managing that manure can put growers in a precarious position. Opening the window for manure application days can benefit both your schedule and the crop.

Read more
www.precisionagreviews.com



Podcast: 13. John Fulton - On-Farm Research Data to...

Throughout the growing season, we got to check in with John Fulton, Ph. D., from The Ohio State University, to learn about the trials he is leading and what his research is working to unearth. As harvest started, we sat down again - this time to...

Read more
www.precisionagreview.com



Podcast: 14. Alysa Gauci - On-Farm Research Data to...

One of the best ways to learn about new products or methods on your farm is to create an on-farm trial. But how do you know how to set it up and how much area is enough to really understand the impact of that trial?

Read more
www.precisionagreviews.com

eFields

connecting science to fields

The 2020 eFields Report is being released in early January! Previous editions of the report can be viewed by clicking the button below.

[eFields](#)

2020 eFields Report

Ohio State Digital Ag Program



COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES
COLLEGE OF ENGINEERING

Like this Newsletter? Help us share it!

Help grow the popularity of "The Digital Ag Download" by sharing with growers, extension folks, and anyone interested in your neck of the woods! Just tell them to sign up and send them this link to go straight to our signup page:

go.osu.edu/DigitalAgDownload

CONTACT US

digitalag@osu.edu



Department of Food, Agricultural and Biological Engineering
Agricultural Engineering Building
590 Woody Hayes Drive, Columbus, OH 43210
Phone: 614-292-6131
Fax: 614-292-9448