

December 11, 2019



# The Digital Ag Download

An eNewsletter with research updates, digital ag news, and tech insights for your farm.

## 2019 End of the Year Report

As 2019 comes to an end, we have our sights on providing you with as much cutting edge information, technology, and research possible. In this edition of the Digital Ag Download, you will find event information, a preview of the newest eFields Report, and other resources to help us all move towards better agricultural decision-making and management. We hope you find this newsletter helpful and we encourage you to share it with anyone who may be interested. Have a happy holiday season!

-The Ohio State Digital Ag Team

Digital Agriculture at  
OSU

## 2020 Precision University

Attend Precision University for a day long program packed with expert speakers and information focused on technology to minimize compaction and maximize soil productivity. Also, obtain your copy of the 2019 eFields edition!



# PRECISION UNIVERSITY

Tech | Data | Insights | Action

# COMBATING COMPACTION

*Learn how to minimize  
compaction and maximize soil  
productivity from industry and  
academic experts.*

## WHEN

January 8, 2020  
8:00am to 3:30pm

## WHERE

NEW Location:  
Champions Center  
4122 Laybourne Road  
Springfield, OH

## HOW

Registration Cost: \$50  
RSVP by January 3 at  
[go.osu.edu/precisionu](http://go.osu.edu/precisionu)

## CONTACT

Amanda Douridas  
[douridas.9@osu.edu](mailto:douridas.9@osu.edu)  
937-484-1526

## FEATURED SPEAKERS

Dr. Scott Shearer - The Ohio State University  
Dr. Ian McDonald - Ontario Ministry of Agriculture  
Dr. Mark Hanna - Iowa State University  
Dr. Jason Warren - Oklahoma State University



**Soucy**



**Mosaic | AgroChem | Ag Info Tech**



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

**[ohiostateprecisionag.com](http://ohiostateprecisionag.com)  
[extension.osu.edu](http://extension.osu.edu)**

Event Information

**Artificial Intelligence Will Change  
Farm Machinery Ownership**

**Planning Early is a Key to Effective  
On-farm Research**





"The age of artificial intelligence (AI) in agriculture is in motion. Automated planting and harvesting, or unmanned vehicles for cultivation and soil sampling, as well as robotic drone activity, crop scouting, and far more—AI technology has jumped from theory to design to farmland. In short, farming's driverless machines of tomorrow are already at work in the rows today with the implementation of AI meaning a significant shift on many farm operations in the near-future."

Click below to continue reading Chris Bennett's Article featuring OSU's Dr. John Fulton on how artificial intelligence will change farm machinery ownership.

[Bennett's Article](#)



"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. One way to help reduce variability is to have a plan before you go to the field. A plan that is designed to have multiple replications of the various components can give you options."

Read the article from Ohio's Country Journal by Dusty Sonnenberg, CCA, Ohio Field Leader featuring OSU's Elizabeth Hawkins.

[OCJ Article](#)

# eFields

connecting science to fields



[Events Page](#)

## Regional Meetings

eFields is an Ohio State University program dedicated to advancing production agriculture through the use of field-scale research. Make plans to join us to learn about the 2019 study results from your area and across the state.

### Southwest Region

February 10, 2019

### Northwest Region

February 26, 2020

### Central Region

February 27 or 28, 2020 (TBD)

### South-Central Region

March 9, 2020

### Eastern Region

March 10, 2020

### Western Region

March 16, 2020

## eFields 2019 Sneak Peek

28 more days until the 2019 eFields Report is released! We know you can't wait to get your hands on all the great research results from this past year, so we thought we would share some insight with you.

Below is some of the brand new data collected from the PLOTS corn seeding rate trials. Take a look, and stay tuned for eFields updates!

Results	
Grain Moisture Content	Average %
28000	19.77
32000	19.73
36000	19.62
40000	19.68
44000	19.40
	CV %: 1.58 *not significant

Population	Average plants/ac
28000	26928.75 a
32000	30530.00 b
36000	34086.00 c
40000	37435.50 d
44000	41533.25 e
	LSD(0.10): 878.68
	CV %: 2.04
Treatment means with the same letter are not significantly different according to Fisher's Protected Least Significant Differences (LSD) test at alpha = 0.1.	

Yield	Average bu/ac
28000	241.93 a
32000	249.88 b
36000	252.50 b c
40000	256.00 c
44000	256.07 c
	LSD(0.10): 4.09
	CV %: 1.29
Treatment means with the same letter are not significantly different according to Fisher's Protected Least Significant Differences (LSD) test at alpha = 0.1.	

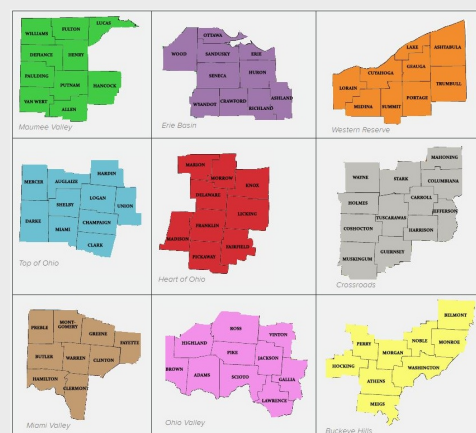


**THE OHIO STATE UNIVERSITY**  
COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

## Farm Bill Meetings

Ohio State University Extension and the USDA Farm Service Agency in Ohio are partnering to provide a series of educational Farm Bill meetings this winter to help producers make informed decisions related to enrollment in commodity programs.

The 2018 Farm Bill reauthorized the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) safety net programs that were in the 2014 Farm Bill. While the ARC and PLC programs under the new farm bill remain very similar to the previous farm bill, there are some changes that producers should be aware of.



Farm Bill meetings will review changes to the ARC/PLC programs as well as important dates and deadlines. Additionally, attendees will learn about decision tools and calculators available to help assess which program best fits the needs of their farms under current market conditions and outlook.

Enrollment for 2019 is currently open with the deadline set as March 15, 2020. Enrollment for the 2020



crop year closes June 30, 2020. Producers can enroll for both 2019 and 2020 during the same visit to an FSA county office. Producers have the opportunity to elect to either ARC or PLC for the 2019 to 2023 crop years, with the option to change their program election in 2021, 2022, and 2023.

To find out about upcoming meetings, and get information about the Farm Bill, click below.

[2018 Farm Bill](#)



## Putting Next Generation Ag Technologies to Work Today

In this Precision Farming Dealer podcast, Dr. Scott Shearer, professor and chair for the FAGE department at Ohio State, shares his perspective on the ag technologies that are influencing on-farm decision-making today. Click the gray button to listen to the podcast or other Precision Farming Dealer podcasts.

[Precision Farming Dealer Podcast](#)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES



## Grain Storage Webinar

2019 conditions led to variable grain quality causing many potential storage issues. Dr. Ken Hellevang, North Dakota State University, will join us for a webinar to share information on managing stored grain including high moisture and damaged grain.

When: Friday, December 20th, 2019 3:00-4:00 PM  
Cost: Free

For more information, contact Elizabeth Hawkins, [hawkins.301@osu.edu](mailto:hawkins.301@osu.edu). Click the gray button to register.

[Webinar Registration](#)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

## 2019 Yield Survey

Normal planting dates for Ohio range from mid-April to the end of May. This season was quite different when planting for both crops was delayed until late May and stretched into June and even July across many parts of Ohio.

Researchers found themselves grasping for any information they could find including 1) how much of an effect late planting dates would have on yield, and 2) what, if anything, we should change in management of these late planted crops. The historical planting date information they did have was somewhat helpful, but they did not have any data on what could happen when planting is delayed into the second half of June nor July.

While it may be tempting to write off this year as a fluke from which there are no real lessons to be learned, there is a growing body of data from climatologists that suggest that this is a beginning of a trend.

What we have is a giant, unplanned and involuntary trial being conducted by Ohio corn and soybean farmers this year. This experiment can help us understand the ramifications of how planting date and hybrid/ variety maturity affected overall yields, as well as pinpoint where further research is needed to fill the gaps in knowledge for future management decisions. To accomplish these goals, we plan to collect a small amount of data on a large number of fields, which can be used to provide baseline information to share how to manage these crops under similar weather events in the future.

To do this, we have a simple request: share your information with us. You can participate in the survey in one of two ways: 1. Click the Online Form button below to complete an online form with which you can report one field at a time or 2. Print or download the paper form, fill it out for as many fields as possible, and send a copy via email to Elizabeth Hawkins (Hawkins.301@osu.edu). Data will be collected from farmers until December 31, 2019.

[Survey Info & Paper Form](#)

[Online Survey Form](#)

## Save the Dates

**Ag Tech Expo**  
December 16-17, 2019

**Grain Storage Seminar**  
December 20, 2019

**Precision University**  
January 8, 2020

## Share the knowledge!

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 to our sign-up page:

[go.osu.edu/DigitalAgDownload](http://go.osu.edu/DigitalAgDownload)

## CONTACT US!

[digitalag@osu.edu](mailto: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