March 11, 2020

2020 Spring Update

As planting is just around the corner, we have our sights on providing you with as much cutting edge information, technology, and research as possible. In this edition of the Digital Ag Download, you will find information on the newest eFields Report, featured articles and publications from our team, 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.

-The Ohio State Digital Ag Team

Digital Agriculture at OSU

Thanks to all of our 2019 farm cooperators and partners!

eFields
connecting science to fields

2019 eFields Report is Now Available

The spring planting season of 2019 was a season that many of us may want to forget, but the weather conditions we dealt with provided us an opportunity to learn how we can be more resilient in agriculture. Looking back at the lessons learned can help us be prepared for similar conditions in the future.

The 2019 eFields Research Report highlights 88 on-farm, field scale trials conducted in 30 Ohio counties. Research topics include nutrient management, precision crop management, cover crops, and forages. Other information about

production budgets, planting progress, and the 2018 Farm Bill is also included.

The 2019 report is now available in both a print and e-version.

To receive a printed copy, contact your local OSU Extension office or email **digitalag@osu.edu**.

The e-version can be viewed and downloaded at **go.osu.edu/eFields** with the online version readable on smartphone or tablet devices.

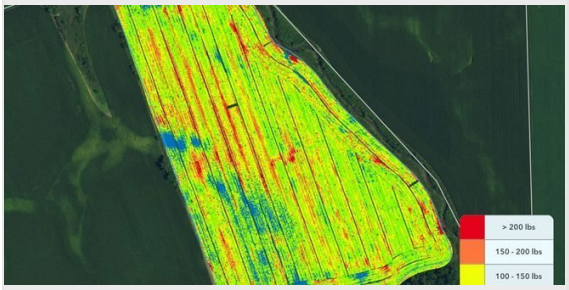
Click below to see an article from Ohio Country Journal featuring the eFields Report.

eFields OCJ Article

If you're interested in participating for the 2020 eFields Report, please contact digitalag@osu.edu.

Featured Articles

Finding Value in Sharing Farm Data



"What will sharing my farm data accomplish and what is the value? Many farmers may find themselves thinking about this very question as they weigh the benefits and drawbacks of sharing their farm data. The potential to realize value from data can often stem from sharing it via digital technologies to service providers or other consultants. In many cases, it may be necessary for a grower to share farm data with multiple entities in order to obtain the largest return on investment possible."

Click below to continue reading Ohio Country Journal's Article by OSU's Dr. John Fulton and Jenna Lee to learn about the value of sharing farm data.

Adopting Technology and Working Together: The Future Is Now for Agriculture

"Farmers, agricultural retailers, equipment manufactures, and researchers all are faced with a multitude of fast changing dynamics in the agricultural industry. Technology and the associated data are two of the biggest. The development of new technology as well as its adoption and implementation are going to be keys to future success for all those involved in the industry."

Read the article from Ohio's Country Journal by Dusty Sonnenberg, CCA, Ohio Field Leader, featuring OSU's Dr. Scott Shearer.

OCJ Article

OCJ Article

The Reality of Artificial Intelligence

"Right now, agriculture is in the hands of multiple individuals, making it disorganized. It has not been rolled up under big corporations and there are still a lot of independent business people in some respects. What is happening now with ag tech startups is there are tremendous amounts of venture capital going into ag technology as more people realize that data is going to start to consolidate agriculture."

Find the full article on the reality of artificial intelligence by Dr. Scott Shearer by clicking below.

Farm Equipment Article

Into the Future

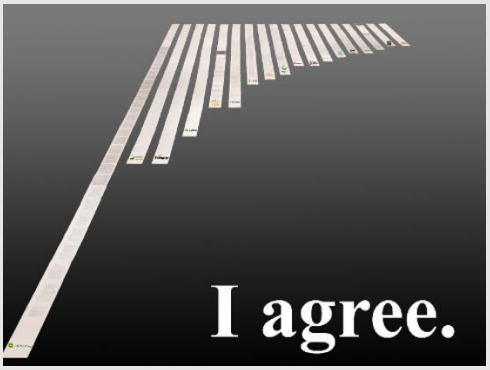
Celebrated ag tech guru Scott Shearer sees a profitable path ahead, together with some potential bumps

"While it's not exactly as futuristic as 2001: A Space Odyssey, it's no longer such a big stretch to imagine the day when a single operator anywhere in the world can remotely control 25 to 30 tractors, and when our crops effectively send us emails letting us know what they need."

Check out the article by Lois Harris on up and coming ag technology with remarks from Dr. Scott Shearer.

Into the Future Article

Making Sense of Your Digital Ag Tool's Privacy Agreement



"Digital agriculture continues to rapidly evolve both here in North America and globally. Farm data and its value remains a hot topic within agriculture while the number of digital technologies commercially available is unbelievable."

To learn more about privacy agreements in digital ag, read the article below by Dr. John Fulton and Elizabeth Landis.

PrecisionAg Article

Precision Farmers Make More Money, So Why Is Adoption So Slow?

"If something works today, it does not mean that it will be as efficient tomorrow. This relates to the farming approaches too. Experts from all around the world emphasize that ag tech is the future. Based on this report, precision farming will be the biggest trend in agriculture by 2030."

Read the article from AgDaily about the adoption of precision farming by clicking below.

AgDaily Article

CFAES OHIO STATE UNIVERSITY EXTENSION

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Thank you to everyone who attended Precision University!

Did you miss Precision U but still want to learn more about soil compaction management? Don't worry! Find the links to all of the presentations here: **Combating Compaction Presentations**

Agronomy and Farm Management Podcasts

Hosted by OSU Extension's Amanda Douridas and Elizabeth Hawkins

Stay on top of what is happening in the field and the farm office. This podcast takes a bi-monthly dive into specific issues that impact agriculture, such as: weather, land value, policies, commodity outlooks, and more. New episodes are released every other Wednesday.

Click below to learn more and to see available podcasts.

Agronomy and Farm Management Podcast

Recent Podcasts

Episode 44 - Growing Hemp: Regulations, Markets and more

Episode 43 - 2019 On-Farm Research Overview - eFields

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

Recent Publications

Corn Emergence and Yield Response to Row-unit Depth and Downforce for Varying Field Conditions

Optimum row-crop planter seeding depth performance is required to place seeds within proper soil conditions to ensure quick germination and maximize the likelihood of uniform emergence. The objective of this study was to evaluate corn emergence and yield response to row-unit depth and downforce in changing field conditions between sites and growing seasons.

Corn Emergence and Yield Response to Row-unit Depth and Downforce Link

Row-crop Planter Performance to Support Variable-rate Seeding of Maize

Current planting technology possesses the ability to increase crop productivity and improve field efficiency by precisely metering and placing crop seeds. Planter performance depends on determining and utilizing optimal settings for different planting variables such as seed depth, down pressure, and seed metering unit. The evolution of “Big Data” in agriculture today brings focus on the need for quality as-planted and yield mapping data. Therefore, an investigation was conducted to evaluate the performance of current planting technology for accurate placement of seeds while understanding the accuracy of as-planted data.

Row-crop Planter Performance to Support Variable-rate Seeding of Maize Link

Field Validation of Seed Meter Performance at Varying Seeding Rates and Ground Speeds

High planter performance requires achieving near-perfect seed meter performance in the field during planting. In-field meter performance can be impacted by several factors including meter setup, ground speed, seeding rate, planter vibration, and field conditions. A study was conducted to evaluate the field performance of two different seed meters (John Deere Standard and Precision Planting eSet) at varying seeding rates and ground speeds during planting.

Field Validation of Seed Meter Performance at Varying Seeding Rates and Ground Speeds Link

Social Media Spotlight

Do you follow us on social media? Check us out @OhioStatePA or search Ohio State Precision Ag on Facebook!

Digital Ag

"How does planter speed have an effect on emergence and corn yield? Find out with the study done on High Speed Planting on pages 40 and 41 of #eFields2019 here: **digitalag.osu.edu/efields**"

Find us on Twitter, Facebook, and Instagram!

"'The cost and complexity of owning and maintaining driverless farm machinery may steer agriculture toward a fee-for-service model instead of growers buying equipment outright' - Mateusz Perkowski, Capital Press
Find quotes from Dr. Scott Shearer in this article on driverless farm machinery here: **Driverless Farm Machinery May Lead to New Business Model**"

Save the Date

2019 eFields Regional Meeting - Western Region
March 16, 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 signup page:

go.osu.edu/DigitalAgDownload

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