



# The Digital Ag Download

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

## Harvest Edition

While it feels as if planting was just finished, it is time to start looking forward to harvest. As fall approaches, we are looking forward to the many opportunities we will have to engage with farmers across the state. In this edition of the Digital Ag Download, you can find helpful articles and resources to help you prepare for the nearing harvest months. 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

## Farm Science Review

**Come find us in booth 1240 with the OSU Agronomic Crops Team and at the Ag Innovation Demo! Demonstrations highlighting the latest drone tech will be at 12:30 each day.**

The Ohio State University's Farm Science Review, celebrating 60 years, attracts over 100,000 visitors with 600 commercial exhibitors. The premier agricultural education and industry exposition is set for September 20–22 at Ohio State's Molly Caren Agricultural Center.

Farm Science Review

## Not able to make it to FSR?

Check out our virtual field demos!  
For more videos, go to the [Ohio State Precision Ag YouTube](#) page.

Ohio State Precision Ag YouTube



John Deere S770 Combine Header 360 View



Aviation in Agriculture 360 View



CaseIH 580 In Cab 360 View

**General Spec's**

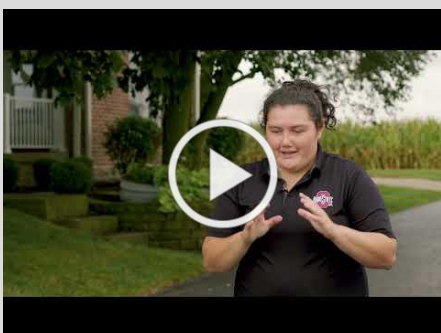
- 4 to 5 gallon tank
- Spray Width: 10 to 20 feet
- Application Rate: 1 to 2 GPA
- Flight Time: 10-15 minutes
- Coverage estimates: 1 acre in 3 to 4 minutes



CFAES

Drone Spraying for Crop Production

## Knowledge Exchange



Knowledge Exchange

Looking for new ways to interact with the eFields Report? Visit the Knowledge Exchange website to learn more about the program and to easily access data. Trials can now be sorted by a particular crop, a specific year, county, or author.

## Featured Publications

## Tips for Calibrating Grain Yield Monitors

Calibrating grain yield monitors at harvest can be confusing and time consuming for a combine operator. However, improperly calibrated yield monitors can generate erroneous data that becomes useless or difficult to interpret.

### Tips for Calibrating

## Improving Yield Map Quality by Reducing Errors through Yield Data File Post-Processing

Yield monitor data is certainly one of the most valuable pieces of information that is gathered throughout the year. It can allow producers to estimate profitability, evaluate management decisions, and develop recommendations for the upcoming year.

### Improving Yield Map Quality

## Limitations of Yield Monitor Data to Support Field-scale Research

On-farm experimentation has increased significantly over the past few years. Yield maps are commonly used to evaluate treatment performance. However, yield data averaged across a larger header width has limitations with lag time and with mass flow sensors having a non-linear response.

### Limitations of Yield Monitor Data

More harvest related publications, including quick start guides, can be found under "Harvest Technologies" on the [Digital Ag website](#).

Harvest Technologies

## Featured Articles, Videos, and Podcasts

### Agronomy and Farm Management Podcast Episode 99 – Automation in Agriculture

Just a few short years ago, driverless tractors made their debut at farm shows and in a few fields around the country. Technology continues to progress making unmanned fleets across farms closer to reality each year. Dr. Scott Shearer, chair of the Department of Food, Agricultural and Biological Engineering at OSU, shares his thoughts on where the future of agricultural equipment is going, why it's heading that direction and what needs to happen to make it a reality.

#### [Episode 99 - Automation in Agriculture](#)

### Agronomy and Farm Management Podcast Episode 102 – Drone Spraying 101

Many farmers are curious about drone spraying. The idea of reducing trips across the field, applying to later growth stages or targeted applications are just a few advantages it may bring to a farm operations. Dr. John Fulton and Alan Leininger join us to discuss what it takes to operate a spray drone. We get into advantages, what regulations are in place and what to consider in hiring a spray drone company.

#### [Episode 102 – Drone Spraying 101](#)

# eFields

connecting science to fields

## Featured Studies

2021 eFields Report

### Yetter Stalk Devastator

This study was designed to test the feasibility of using Yetter Stalk Devastators for stalk breakdown and traction device protection. The Devastators were installed on a Case IH 8250 combine and Case IH 2212 corn header. This study was completed with and without Devastators installed. After harvest and winter we went out and performed counts to look at what percent of stalks that were crimped and breaking down. Read more on page 156 of the 2021 eFields Report.



### Strip-Till Compaction

Strip tillage was performed in the fall prior to planting, and yield was then monitored in the treatment areas. The 6 rows with the planter tracks were harvested as trafficked areas and the 6 rows on the "wings" were harvested as un-trafficked areas. This trial was on a field with mostly clay loam soil. Read more on page 144 of the 2021 eFields Report.



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

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