

# NW Ohio Barley Cohort Summary 2018-2019

Great Lakes Hop and Barley Conference

March 6, 2020

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# Goals for this session:

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- Review Benefits and Methods of Research Cohorts
- Review What We Learned in Ohio on Malt Barley Production



# Why consider research cohorts?

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1. Learn something new, together
2. Open communication, transparency
3. Familiarize growers with research
4. Social aspect
5. Critical mass of growers for BMP adoption
6. Works great for 'new' crops or practices





# Reasons to forget research cohorts?

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1. More work, more time
2. More communication
3. Closed-minded participants
4. No interest or time for research

# Cohort 'Meetings'

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## 1. Pre-Plant (August)

- First Friday Breakfast meeting

## 2. Pre-Greenup (Winter)

- OFR Review meeting/Panel

## 3. Post-Harvest/Double Crop Walk (August)



# What We Learned From Growing 2018-2019 Barley



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# Research Request #1 (Barley):

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Plant a small lot of barley and share production practices, dates, rates, yield and quality data.

**8 growers and 9 fields in 2018**

**13 growers and 22 fields in 2019**

**15 growers and 25+ fields in 2020 (est)**

# 2018 Research Collaborators

Grower	County	Fields	Acres (Plant & Harvest)
Stevenson	Defiance	1	15

**NW Ohio Research based on 208.2 acres. Avg field 23.1 acres.  
0 fields destroyed in Spring  
1 field with high DON (1.2 ppm)**

Seiler	Fulton	1	9.4
Farmer	Hancock	1	13
Leaders	Henry	1	30
Pond	Paulding	2	106



# 2019 Research Collaborators

Grower	County	Fields	Planted Acres
McGlinch	Darke	1	40 (0)
Czartowski	Defiance	1	20*
Stevenson	Defiance	4	194*
Bernath	Fulton	1	71
Onweller	Fulton	1	70 (0)
Richer	Fulton	1	39 (34)
Seiler	Fulton	2	169
Farmer	Hancock	1	200 (0)
Eggers	Henry	4	50 (11.5*)
Leaders	Henry	1	175 (0)
Vorwerk	Henry	3	98 (30)
Pond	Paulding	1	78 (0)
Herringshaw	Wood	1	75 (0)

## THE UGLY...2019:

**1,279 Planted Acres**  
**530 Harvested Acres**

**22 fields across 7 counties**  
**10 fields destroyed in spring**

**9 of 12 remaining = high DON**

**3 of 12 fields < 1 ppm DON**

# Research Request #2 (Soybeans):

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Plant the same soybean (brand & maturity) in 3 different situations

1. First crop Soybean ~ May
2. Double crop after barley ~ late June
3. Double crop after wheat ~ early July

Record production practices, dates, rates, yields, for soybeans

**8 growers and 8 fields in 2018**

**6 growers and 6 fields in 2019**

# 2018 Pictures



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# Water absorption; root mass



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June 12, 2 weeks prior to harvest



Bright straw, yielded .64 – 1.31 T/ac



August 28<sup>th</sup>, 2018





# 2019 Pictures



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# Barley Results – Yield & Quality Metrics

Grower	2019 Averages	2018 Averages
Plant Date	Oct 12	Sept 29
Harvest Date	July 6	June 26
Moisture (%)	13.7	13.5
Grain Yield (bu/ac)	50.6	86.0
Straw Yield (T/ac)	.55	1.01







# Barley Results – Yield & Quality Metrics

Grower	2019 Averages	2018 Averages
Plant Date	Oct 12	Sept 29
Harvest Date	July 6	June 26
Moisture (%)	13.7	13.5
Grain Yield (bu/ac)	50.6	86.0
Straw Yield (T/ac)	.55	1.01
Protein (%)	10.4	11.6
Plump (%)	91.6	87.7
Germination (%)	97.4	98.5
DON (ppm)	4.6	.45

# Double Crop Soybeans - RESULTS

2019

Grower	First Crop Average	After Barley Average	After Wheat (1 pt)
Plant Date	June 24	July 2	July 13
Population (mill sds/ac)	170	197	210
Harvest Date	Oct 27	Nov 12	Nov 19
Moisture	12.4	15.4	20+
Yield	49.8	30.5	29.5

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# Doublecrop Soybeans - 2018



July 7 vs June 26, 2018 (Seiler)  
After wheat      After barley

# Double Crop Soybeans - RESULTS

Grower	2019 (n=6)			2018 (n=8)		
	First Crop Average	After Barley Average	After Wheat (n=1)	First Crop Average	After Barley Average	After Wheat Average
Plant Date	June 24	July 2	July 13	May 22	July 1	July 7
Population (mill sds/ac)	170	197	210	175	187	197
Harvest Date	Oct 27	Nov 12	Nov 19	Oct 17	Nov 17	Nov 29
Moisture	12.4	15.4	20+	14.0	18.7	17.8
Yield	49.8	30.5	29.5	59.3	36.6	19.5

# Barley Summary:

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**Barley quality – still learning about DON mgmt.**

**Barley yield - optimistic**

**Soybeans after barley vs wheat – 6-10 day gain**

**Economics from 2018 = very positive**

**Economics from 2019 = quite negative, more work**

**Economics from 2020 = TBD**

**\*Southern/Central OH – 2019 better yield, quality issues**

# 2020 Barley eFields Projects:

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## On Farm:

**Barley Plant Date = Sept 18, Sept 21, Oct 10**

## Northwest Research Branch (Custar):

**Barley DoP x Seeding Rate – 7 dates x 4 rates**

**Double Soy after Barley – 3 rates x 3 maturities**



# 2020 eField DoP Study – Oct 19, 2019

Sept 18

Sept 18

Sept 18

Sept 18

Sept 21

Sept 21

Sept 21

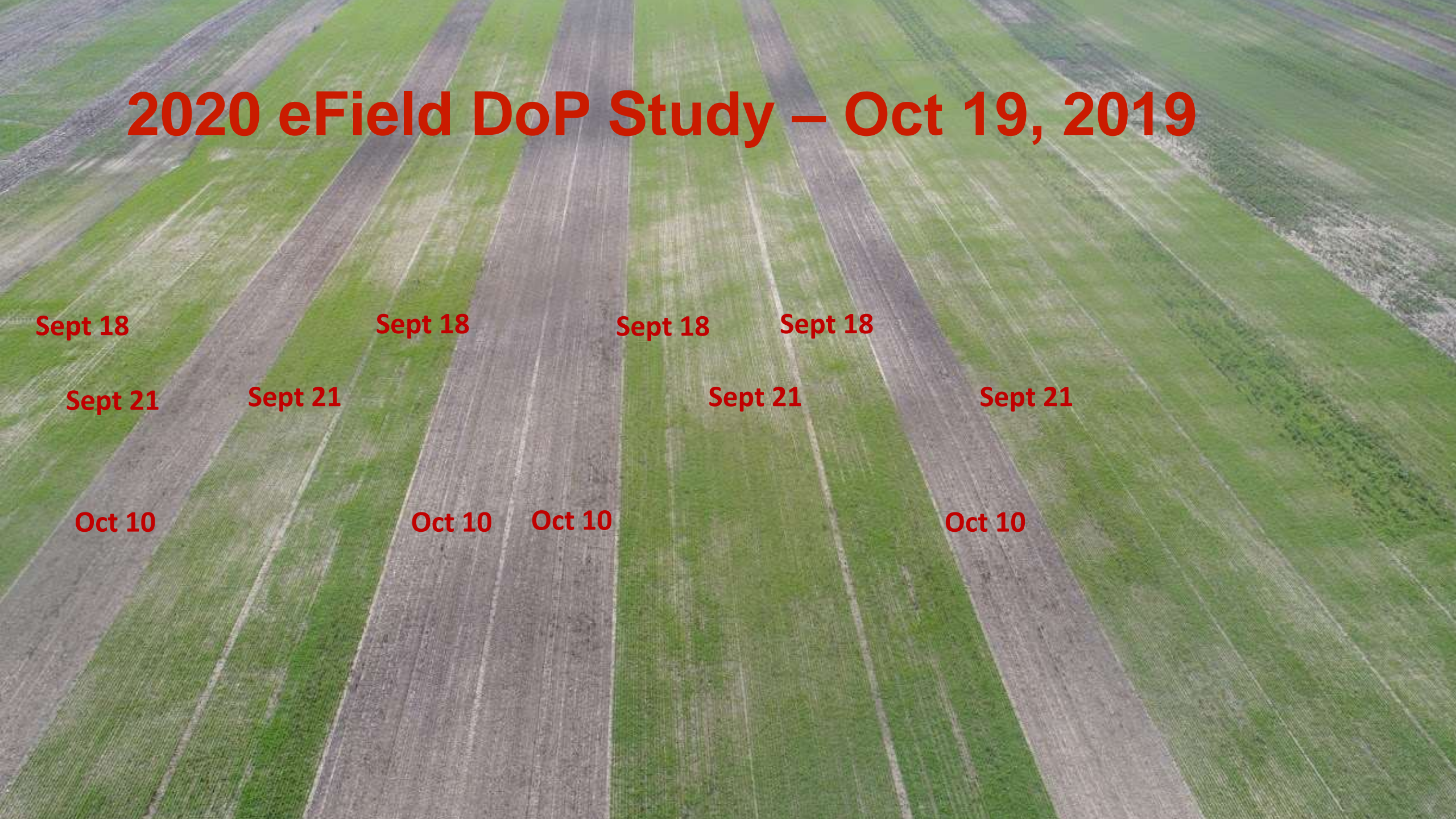
Sept 21

Oct 10

Oct 10

Oct 10

Oct 10





# 2020 eField DoP Study on Nov 2, 2019

Sept 21

Oct 10

Sept 21

Sept 18

Oct 10

Sept 18



# 2020 DoP x Seeding Rate Study at OARDC

**Dates: 9/3, 9/13, 9/23, 10/3, 10/14, 10/24, 11/4**

**Rates: 1 M, 1.5 M, 2.0 M, 2.5 M**





# Thank you!

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