



# HARD RED SPRING WHEAT

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## 2024 CROPLAN Product Guide





# Understanding Wheat Response Scores

- Response To scoring based on market needs, based on two goals
  - Yield (Bu/A)
  - Protein (%)
- Treatment deltas (differences between treatments) designate products as Low, Moderate, or High response

Research Treatment Details				
Region	West (West U.S. Hwy 83)		East (East U.S. Hwy 83)	
Level	Low	High	Low	High
Nitrogen	50lbs N	175lbs N	100lbs N	225lbs N
Population	600,000 Seed/Ac	1,600,000 Seeds/Ac	800,000 Seed/Ac	1,800,000 Seeds/Ac
Sulfphur	0 lb/a	20 lb/a	0 lb/a	20 lb/a



# Understanding Wheat Response Scores

- Response to Population (RTP): Impact on yield (but not always), data showed no significant impact on protein
- Response to Nitrogen (RTN): Larger impact on yield, significant impact on protein

Research Treatment Details				
Region	West (West U.S. Hwy 83)		East (East U.S. Hwy 83)	
Level	Low	High	Low	High
Nitrogen	50lbs N	175lbs N	100lbs N	225lbs N
Population	600,000 Seed/Ac	1,600,000 Seeds/Ac	800,000 Seed/Ac	1,800,000 Seeds/Ac
Sulfphur	0 lb/a	20 lb/a	0 lb/a	20 lb/a



# 2023 Hard Red Spring Wheat Rating Chart



HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

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Variety	Growth and Agronomics										Insect/Disease Ratings						Response Scores				Variety
	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN	
CP3055	60	92	T	Y	4	4	4	2	N/A	2	3	2	2	N/A	4	2	L	L	NS	H	CP3055
CP3099A	60	92	T	N	2	5	3	1	4	4	4	4	4	N/A	2	4	M	M	NS	M	CP3099A
CP3119A	62	96	T	N	2	4	4	3	N/A	2	4	4	2	N/A	2	3	L	L	NS	M	CP3119A
CP3188	57	85	T	Y	3	3	3	1	N/A	4	3	1	4	N/A	3	4	L	M	NS	M	CP3188
CP3201AX	54	85	M	Y	1	2	3	N/A	N/A	4	N/A	N/A	N/A	3	N/A	2	L	H	NS	L	CP3201AX
CP3322	57	90	T	Y	2	3	3	N/A	N/A	2	3	N/A	N/A	N/A	N/A	3	L	H	NS	L	CP3322
CP3360AX	54	84	M	Y	1	3	1	N/A	3	4	3	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	CP3360AX
CP3530	57	87	T	Y	4	2	2	2	3	4	2	4	1	3	3	2	M	M	NS	M	CP3530
CP3915	55	86	M	Y	1	2	1	1	2	4	2	1	1	N/A	3	1	H	M	NS	M	CP3915

### Agronomics/Disease Key

Rating Scale

1 = Excellent

5 = Not recommended

BLS=Bacterial Leaf Streak; FHB = Fusarium Head Blight; WSS = Western Stem Sawfly

### Response Scores Key

H=High, M=Moderate, L= Low,

NS = No Significant Difference

RTN = Response to Nitrogen

RTP = Response to Population



# CP3055

## Positioning Comments

High yield potential European-style genetics with a solid disease package

Semi-solid stem variety for saw-fly tolerance and good stress tolerance for a great western fit!

Very large plant type and full-season maturity allows for very high yield potential

Moderate yield response to N; but being a full season product means there is a great opportunity for split-applied N, and additional N does increase protein %

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3055	60	92	T	Y	4	4	4	2	N/A	2	3	2	2	N/A	4	2	L	L	NS	H

Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3055

## Management Comments

**Population:** 1.0-1.3 M seeds/a; data suggests no benefit from increased seeding rates

**Nitrogen:** Additional N will likely result in only minimal yield gain; however, higher N rates or in-season N applications have shown in research to increase % protein

**Other:** Higher rates may lead to lodging in offensive environments, but can also provide excellent straw

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3055	60	92	T	Y	4	4	4	2	N/A	2	3	2	2	N/A	4	2	L	L	NS	H

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# CP3055

**Very large flag leaf  
drives grain fill!**





# CP3055

HRSW Regional Breakout	CP3055
Ada, MN	75.8
Berthold, ND	89.1
Buxton, ND	69.2
Fessenden, ND	92.8
New Salem, ND	74.7
Rocklake, ND	75.4
Wilton, ND	75.4
<b>Overall Avg</b>	<b>70.9</b>
<b>Protein</b>	<b>13.9</b>
<b># Protein/Acre</b>	567
<b>Low Yield Environment*</b>	<b>71.9</b>
High Yield Environment**	81.7
Eastern ND***	79.2
Western ND****	78.6

**2022 AP data shows excellent performance in lower yield environments, but still has top end potential in higher-yielding environments!**

2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



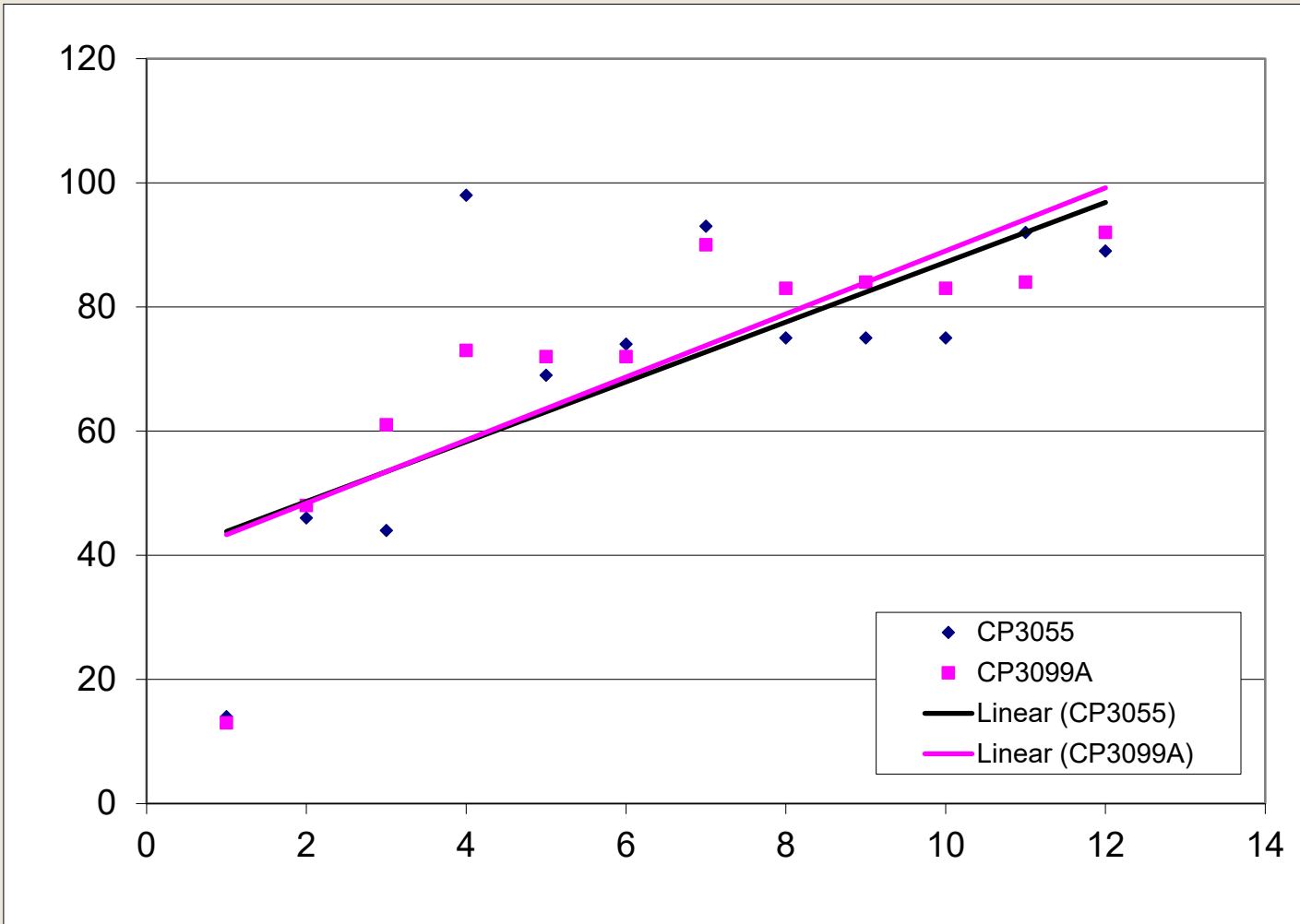




# CP3055 vs CP3099A



HARD RED SPRING WHEAT



**CP3055 starts to show better than CP3099A in lower yield environments**

ANYTHING BUT TYPICAL.

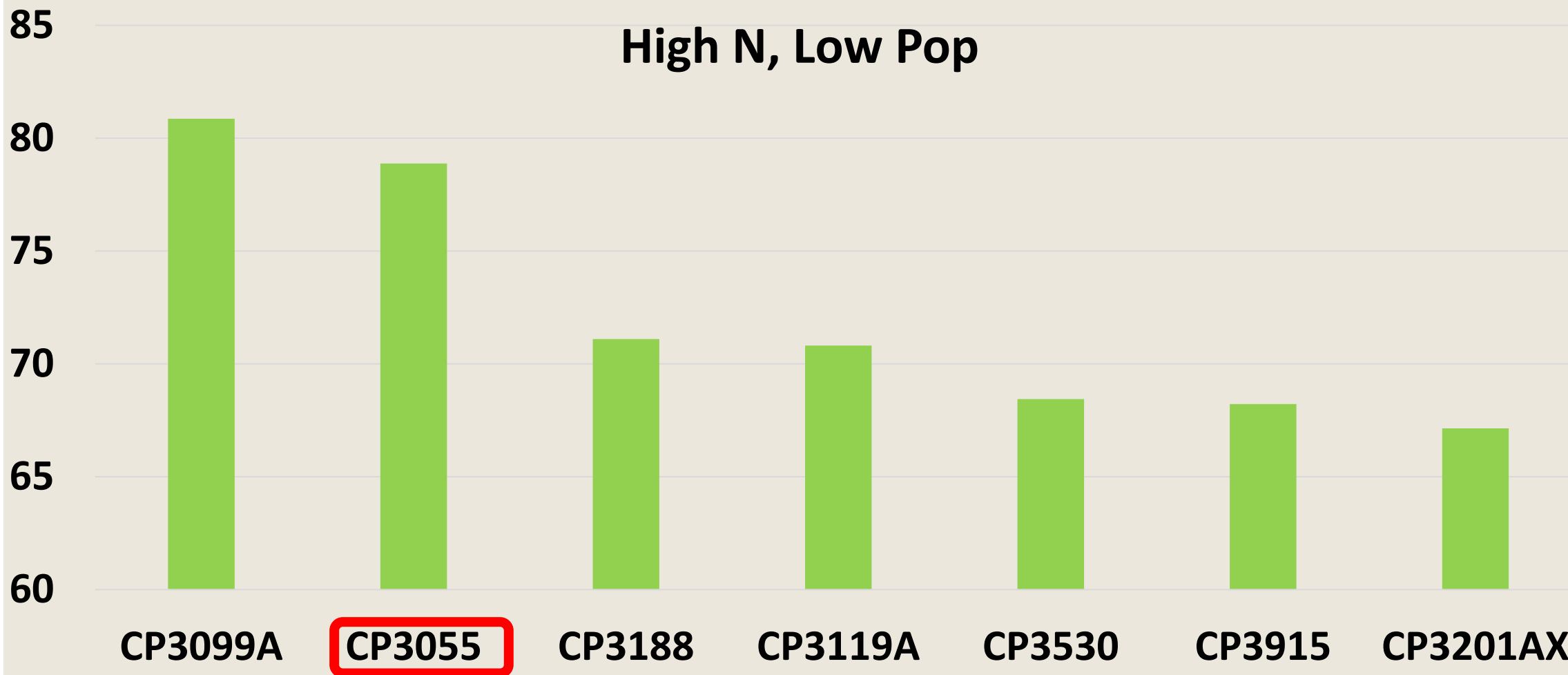
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2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



# CP3055 Response Data

## High N, Low Pop



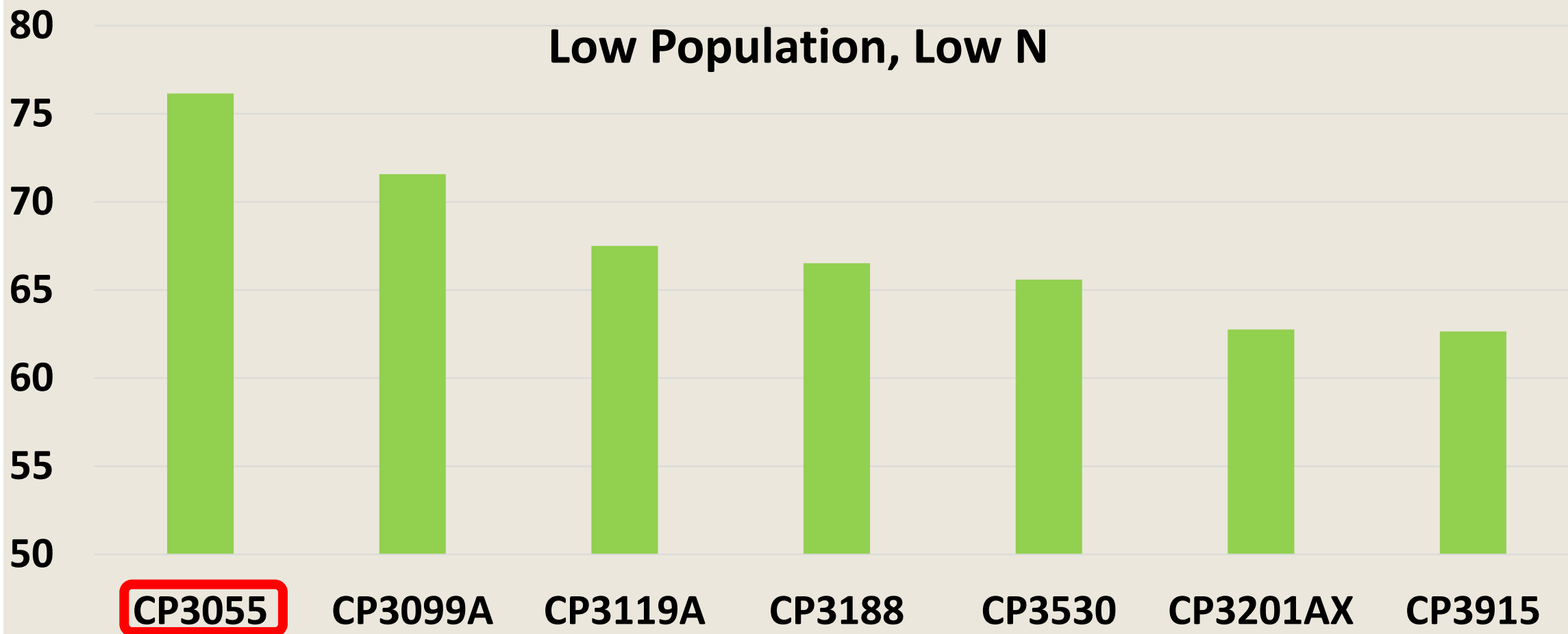
**CP3055 responded to N management, but tolerates moderate to lower pops better than other varieties**

2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3055 Response Data



Even under low management situations, CP3055 has shown stability, which should make it an acre-friendly type of product

2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



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# CP3055 One to Many

## One to Many Comparison

<b>Benchmark:</b>	CROPLAN - CP3055
<b>Minimum Tests:</b>	20

Company	Product	Trait	RM	Total Tests	Protein			Yield				
					Benchmark Protein	Product Protein	Prt Diff +/-	Benchmark Wins	% Wins	Benchmark Mean	Product Mean	Yield Adv.
Limagrain	LCS Buster	HRS		22	13.4%	12.7%	0.7%	5	22.7%	68.4	76.9	-8.6
Limagrain	LCS Trigger	HRS		34	13.6%	13.0%	0.6%	6	17.6%	69.2	76.2	-6.9
NK	AP Murdock	HRS		27	13.1%	14.3%	-1.2%	13	48.1%	64.8	67.7	-2.9
Dyna-Gro	Ballistic	HRS		27	13.1%	14.2%	-1.1%	13	48.1%	64.8	66.8	-2.0
Public	MN Torgy	HRS		27	13.1%	14.9%	-1.9%	10	37.0%	64.8	66.5	-1.7
TCG	TCG-Spitfire	HRS		27	13.1%	13.9%	-0.9%	14	51.9%	64.8	66.5	-1.7
TCG	TCG Wildcat	HRS		22	13.4%	15.3%	-1.9%	9	40.9%	68.4	69.7	-1.4
AgriPro	SY Valda	HRS		35	13.3%	14.3%	-1.0%	21	60.0%	66.2	67.4	-1.2
WestBred	WB9590	HRS		26	13.5%	14.8%	-1.4%	13	50.0%	71.7	72.4	-0.7
Limagrain	LCS Rebel	HRS		27	13.1%	15.0%	-2.0%	15	55.6%	64.8	64.8	-0.1
Dyna-Gro	Commander	HRS		27	13.1%	14.6%	-1.5%	16	59.3%	64.8	64.7	0.0
CROPLAN	CP3530	HRS		30	13.6%	15.0%	-1.4%	15	50.0%	69.8	69.2	0.7
Meridian Seed	MS Ranchero	HRS		21	13.4%	14.5%	-1.2%	12	57.1%	69.1	68.1	1.0
Public	Faller	HRS		25	13.5%	14.2%	-0.7%	11	44.0%	63.3	62.2	1.1
Dyna-Gro	Ambush	HRS		27	13.1%	15.1%	-2.0%	18	66.7%	64.8	63.6	1.2
Public	Lang-MN	HRS		27	13.1%	15.1%	-2.0%	16	59.3%	64.8	63.5	1.2
Public	Shelly	HRS		27	13.1%	14.4%	-1.3%	18	66.7%	64.8	63.5	1.3
Limagrain	LCS Cannon	HRS		26	13.1%	14.4%	-1.3%	16	61.5%	64.9	63.6	1.3
AgriPro	SY 611CL2	HRS		20	13.1%	14.9%	-1.8%	12	60.0%	69.9	68.4	1.5
CROPLAN	CP3915	HRS		34	13.6%	14.8%	-1.2%	15	44.1%	69.2	67.3	2.0
Public	ND Frohberg	HRS		27	13.1%	14.9%	-1.8%	17	63.0%	64.8	61.7	3.1
TCG	TCG-Heartland	HRS		22	13.4%	15.6%	-2.2%	12	54.5%	68.4	65.1	3.3
CROPLAN	CP3910	HRS		20	13.2%	14.4%	-1.2%	11	55.0%	71.1	67.8	3.4
AgriPro	SY Ingmar	HRS		39	13.4%	15.1%	-1.8%	26	66.7%	66.6	62.4	4.2
AgriPro	SY Longmire	HRS		29	13.1%	14.8%	-1.6%	17	58.6%	67.3	63.0	4.3
Meridian Seed	MS Barracuda	HRS		27	13.1%	15.3%	-2.3%	18	66.7%	64.8	60.5	4.3
AgriPro	SY McCloud	HRS		27	13.1%	15.2%	-2.2%	19	70.4%	64.8	60.2	4.6
Public	MN Washburn	HRS		27	13.1%	14.4%	-1.3%	16	59.3%	64.8	59.9	4.8
CROPLAN	CP3903	HRS		20	13.2%	14.7%	-1.6%	14	70.0%	71.1	66.1	5.0
Public	Linkert	HRS		27	13.1%	15.4%	-2.4%	19	70.4%	64.8	58.5	6.3
Public	Bolles	HRS		27	13.1%	16.5%	-3.4%	19	70.4%	64.8	57.8	6.9
Dyna-Gro	Velocity	HRS		27	13.1%	15.6%	-2.6%	20	74.1%	64.8	57.8	7.0



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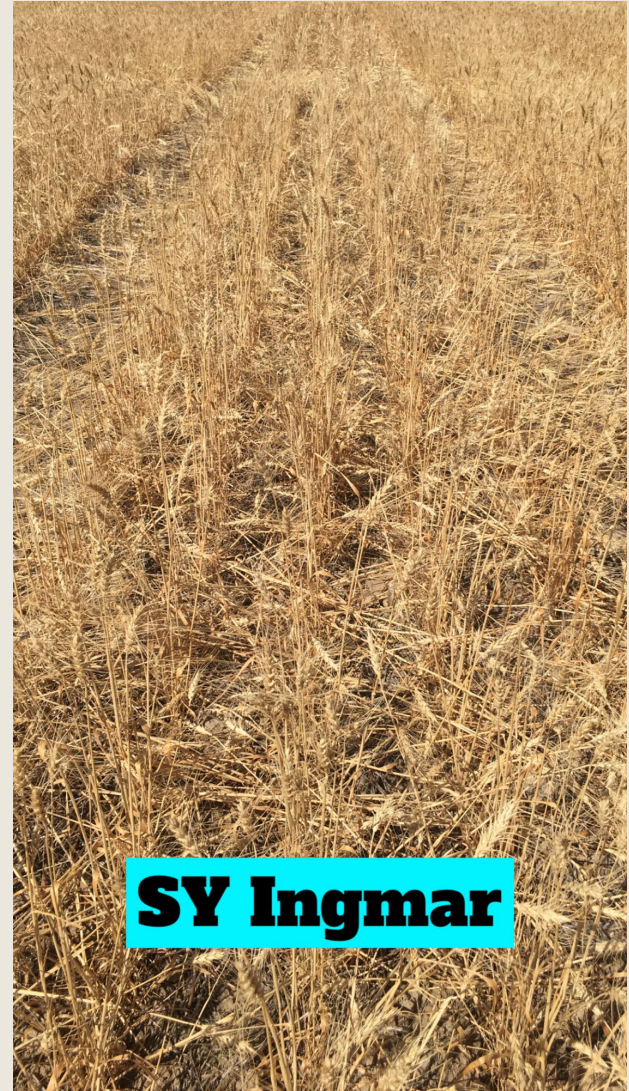
# CP3055 vs Sawfly (Ft. Benton, MT)



**CP3055**



**SY Longmire**



**SY Ingmar**

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HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

CROPLAN



# CP3055



CP3055

CP3888



CP3055



HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

CROPLAN



# CP3099A

## Positioning Comments

One of the highest yielding products in the industry, works west to east but biggest yield advantage is in higher yielding, cooler environments east of the Missouri

Large biomass and an awnless head provide excellent forage (tonnage and quality)

Research has shown CP3099A to increase in yield with increasing populations with generally good standability in most environments

Moderate response to nitrogen (RTN) indicates additional or in-season N can both increase yield and protein %

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3099A	60	92	T	N	2	5	3	1	4	4	4	4	4	N/A	2	4	M	M	NS	M

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# CP3099A

## Management Comments

**Population:** 1.3-1.6 M seeds/a (around 2 bu/a is a sweet spot), data suggests yield increases as populations are increased – main stem head drives yield

**Nitrogen:** Data shows increases in both yield and % protein with increased or in-season N; providing sufficient N and more productive soils is key for increased protein

**Other:** Utilize a fungicide for FHB; pre-harvest glyphosate will help provide a timely harvest

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3099A	60	92	T	N	2	5	3	1	4	4	4	4	4	N/A	2	4	M	M	NS	M

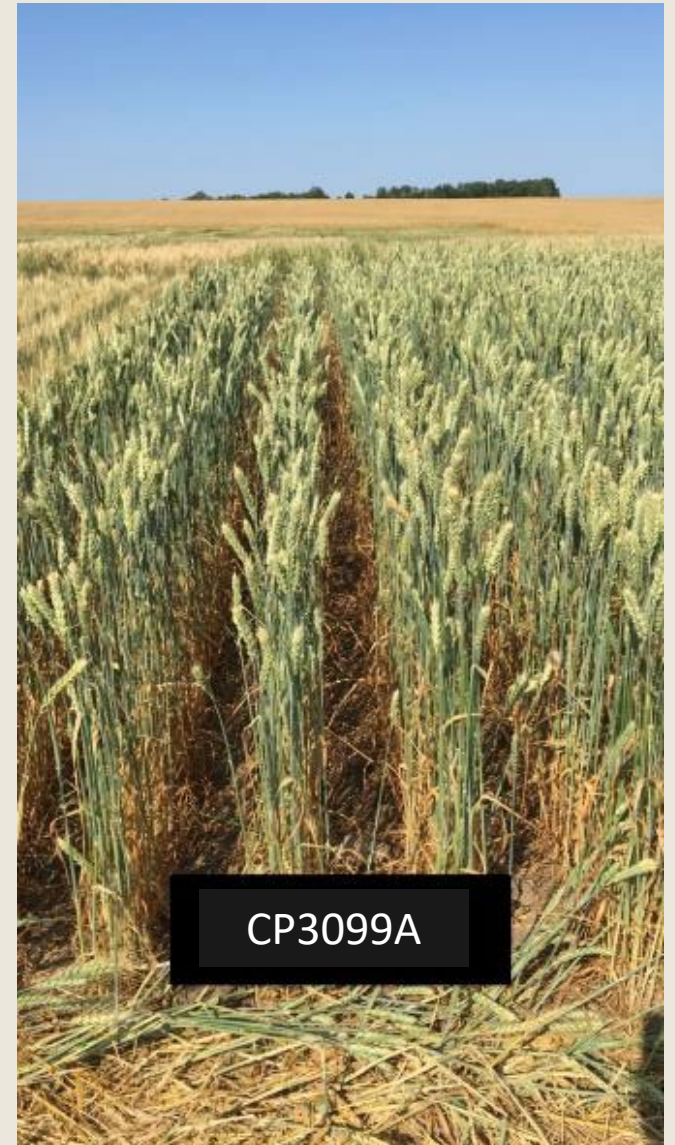
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# CP3099A



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# CP3099A



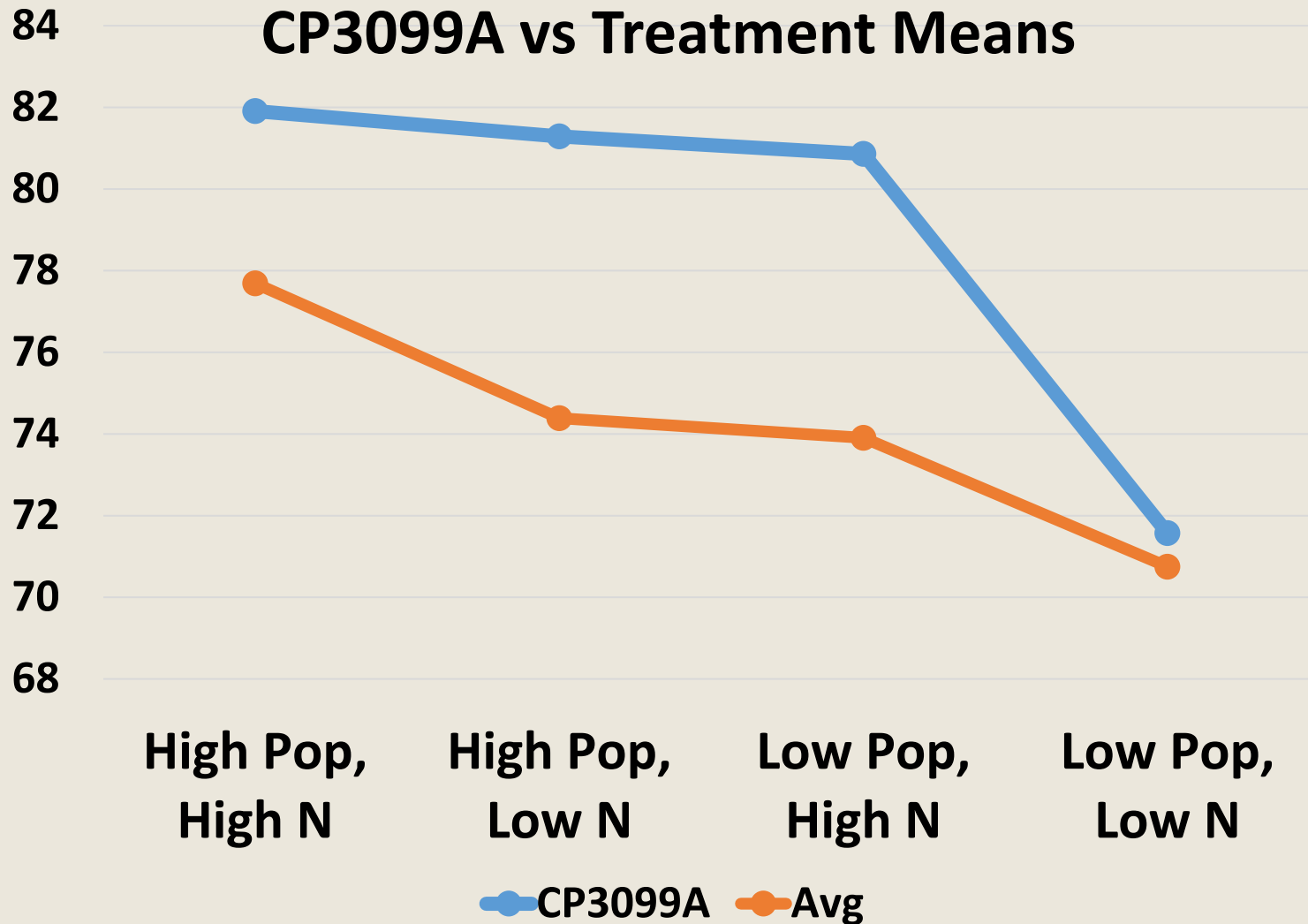
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# CP3099A Response Data

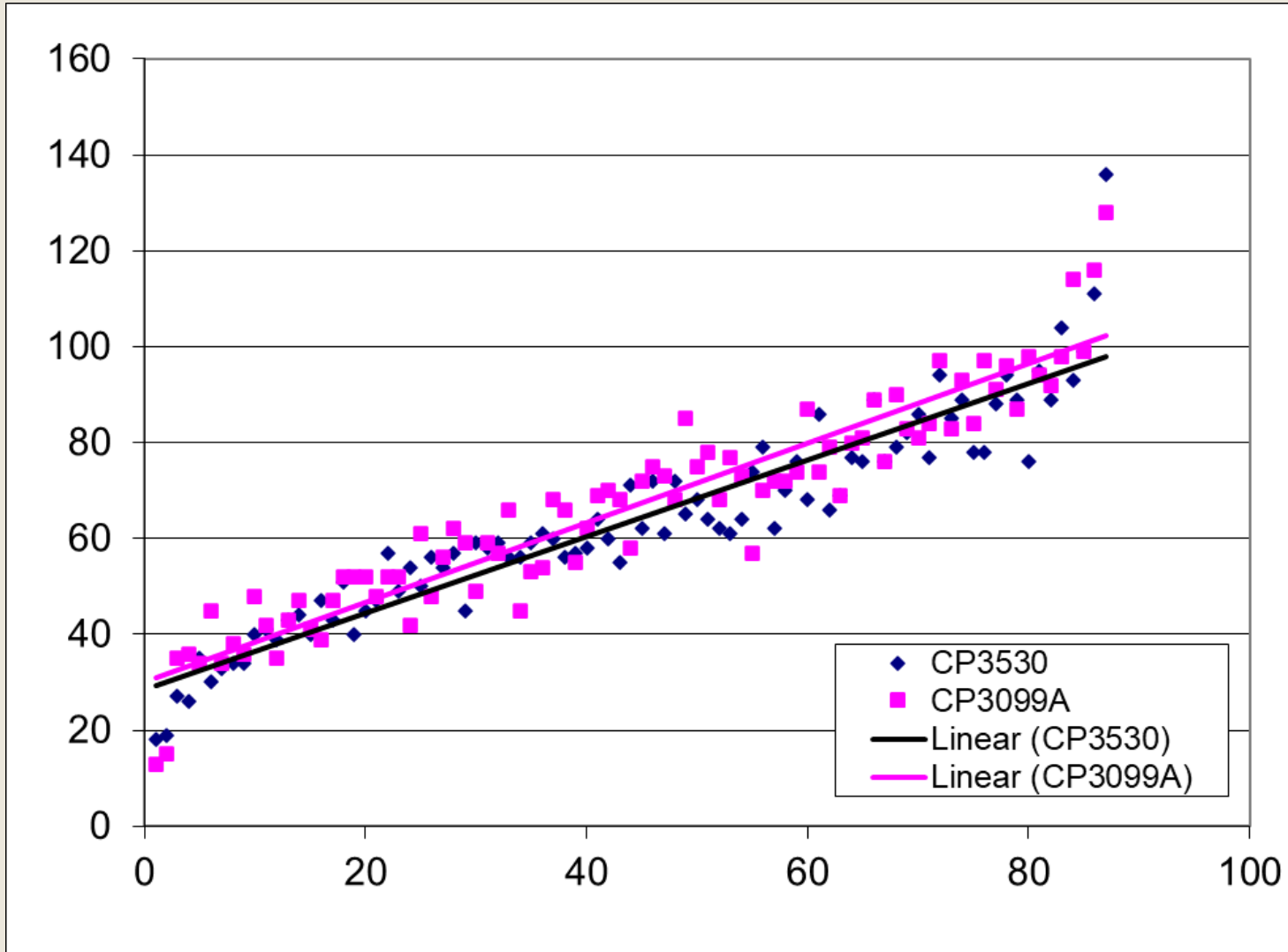


**CP3099A responds to high populations, especially if late season N levels allow the head to fill**

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# CP3099A vs CP3530



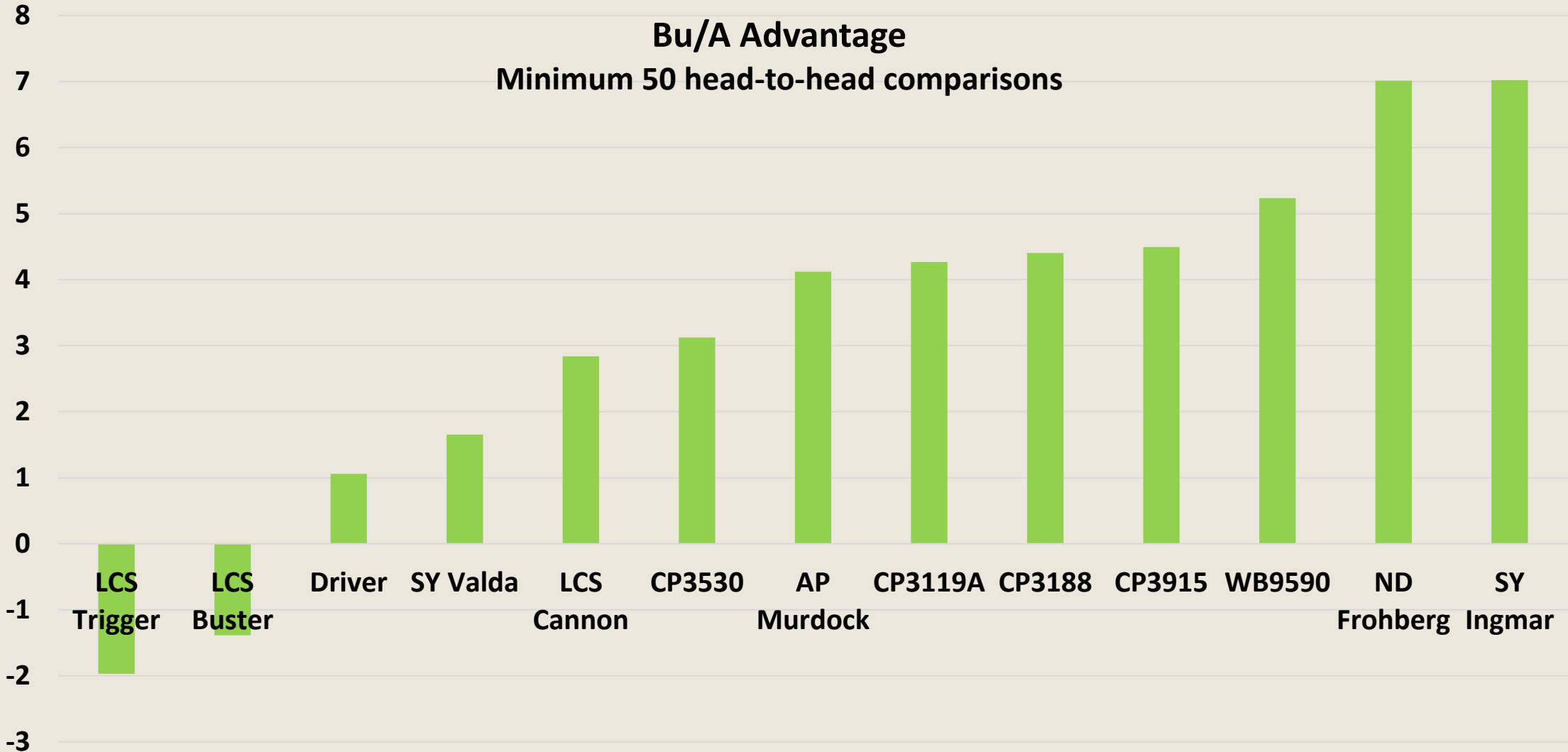
**CP3099A yield advantage over CP3530 grows as yield levels increase**

Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3099A vs Key Checks

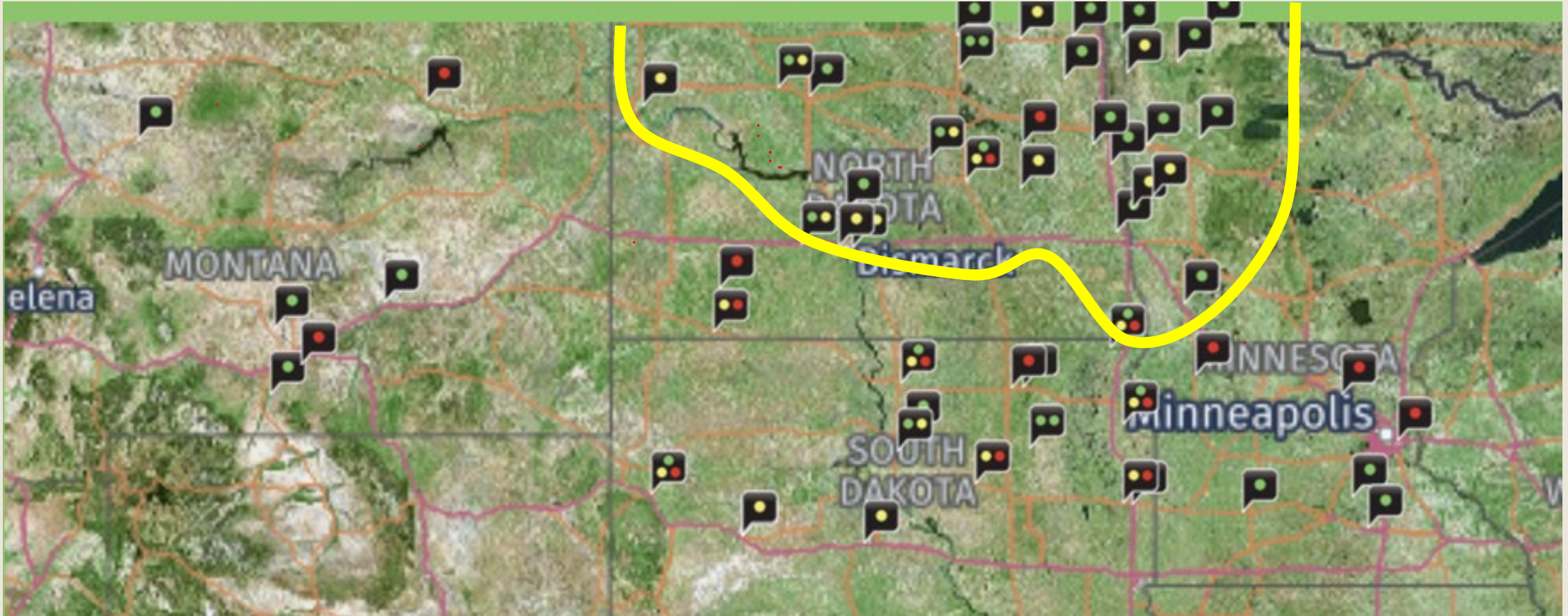


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# CP3099A



**CP3099A seems to work best as you move north and east, but still has wins across the entire region**

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HARD RED SPRING WHEAT

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# CP3119A

## Positioning Comments

High-yielding European style genetics brings an awnless product with incredible biomass and very good standability under moderate populations

Semi-solid stem for WSS tolerance combined with stress tolerance and lower response to inputs makes this a great Western-style wheat!

Incredibly large flag leaf, massive biomass, and an extended season allows this “grain factory” to stay open longer and make more bushels!

Has shown best success from Central and Western ND/SD into Montana

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3119A	62	96	T	N	2	4	4	3	N/A	2	4	4	2	N/A	2	3	L	L	NS	M

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# CP3119A

## Management Comments

**Population:** 1.0-1.3 M seeds/a; can increase populations if environment supports or if straw is an additional goal, but use caution in aggressive environments that may cause lodging

**Nitrogen:** Data showed increases % protein with increased or in-season N; additional, utilize additional N or more productive soils to increase protein

**Other:** Utilize a fungicide for FHB; pre-harvest glyphosate will help provide a timely harvest

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3119A	62	96	T	N	2	4	4	3	N/A	2	4	4	2	N/A	2	3	L	L	NS	M

Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



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# CP3119A One to Many

Benchmark:

CP3119A

Minimum Tests:

20

Company	Product	Trait	RM	Total Tests	Protein			Yield				
					Benchmark Protein	Product Protein	Prt Diff +/-	Benchmark Wins	% Wins	Benchmark Mean	Product Mean	Yield Adv.
Limagrain	LCS Trigger	HRS		27	14.2%	13.9%	0.2%	11	40.7%	55.7	57.7	-1.9
Limagrain	LCS Buster	HRS		20	14.2%	13.8%	0.4%	7	35.0%	56.3	57.4	-1.1
CROPLAN	CP3099A	HRS		26	14.3%	13.8%	0.5%	13	50.0%	60.4	61.2	-0.9
Public	Driver	HRS		21	14.1%	15.3%	-1.2%	9	42.9%	55.9	56.2	-0.4
Public	MN Torgy	HRS		21	14.1%	15.7%	-1.6%	12	57.1%	55.9	55.1	0.8
Limagrain	LCS Rebel	HRS		20	14.2%	15.8%	-1.7%	11	55.0%	56.3	55.5	0.8
CROPLAN	CP3188	HRS		33	14.1%	14.1%	0.0%	22	66.7%	60.7	59.5	1.2
Limagrain	LCS Cannon	HRS		20	14.1%	15.2%	-1.1%	12	60.0%	54.9	53.5	1.4
AgriPro	SY Valda	HRS		32	14.1%	15.1%	-1.0%	20	62.5%	61.2	59.7	1.5
Public	Faller	HRS		24	13.9%	14.8%	-0.9%	14	58.3%	64.3	62.6	1.6
Public	MN Washburn	HRS		21	14.1%	15.4%	-1.2%	13	61.9%	55.9	53.3	2.6
CROPLAN	CP3530	HRS		33	14.1%	15.5%	-1.4%	23	69.7%	60.7	57.4	3.3
Meridian Seed	MS Cobra	HRS		21	14.1%	15.7%	-1.6%	15	71.4%	55.9	52.4	3.5
CROPLAN	CP3915	HRS		27	14.3%	16.0%	-1.7%	19	70.4%	61.5	57.5	4.0
WestBred	WB9590	HRS		28	14.2%	16.3%	-2.1%	21	75.0%	61.5	56.7	4.8
NK	AP Murdock	HRS		21	14.1%	15.4%	-1.3%	16	76.2%	55.9	50.0	5.9
Public	ND Frohberg	HRS		21	14.1%	15.7%	-1.6%	15	71.4%	55.9	50.0	5.9
Meridian Seed	MS Barracuda	HRS		21	14.1%	15.8%	-1.6%	17	81.0%	55.9	48.9	7.0
AgriPro	SY Ingmar	HRS		32	14.1%	15.8%	-1.7%	24	75.0%	61.2	54.1	7.1



HARD RED SPRING WHEAT

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25



# CP3119A

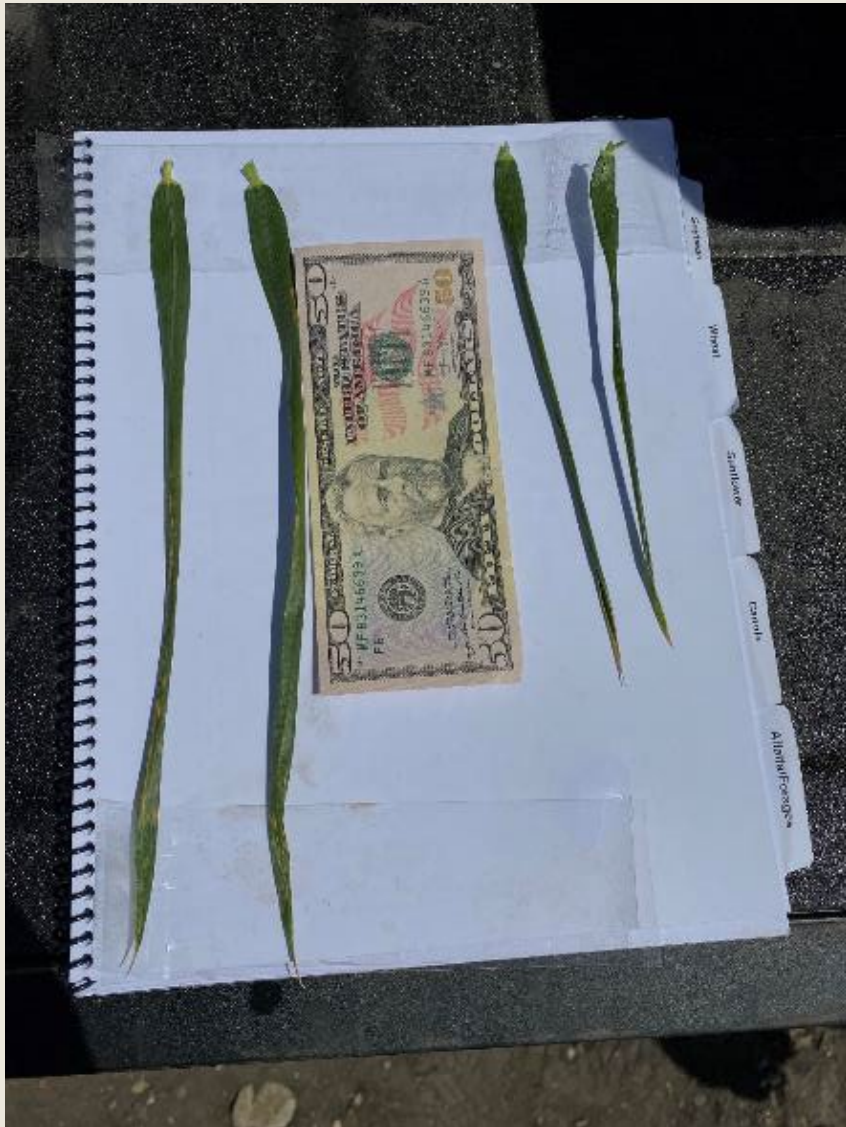


Lots of biomass early,  
fast canopy closure

Tremendous biomass by  
heading, taller with  
thicker stems, very large  
heads; lots of grain/head



# CP3119A



Huge flag leaf, bigger than CP3099A, shown next to an average competitive flag leaf (width was hard to show – hot windy day rolled it immediately)

That huge flag leaf will fill these massive heads and that means \$\$\$





# CP3119A vs Sawfly (Ft. Benton, MT)



Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



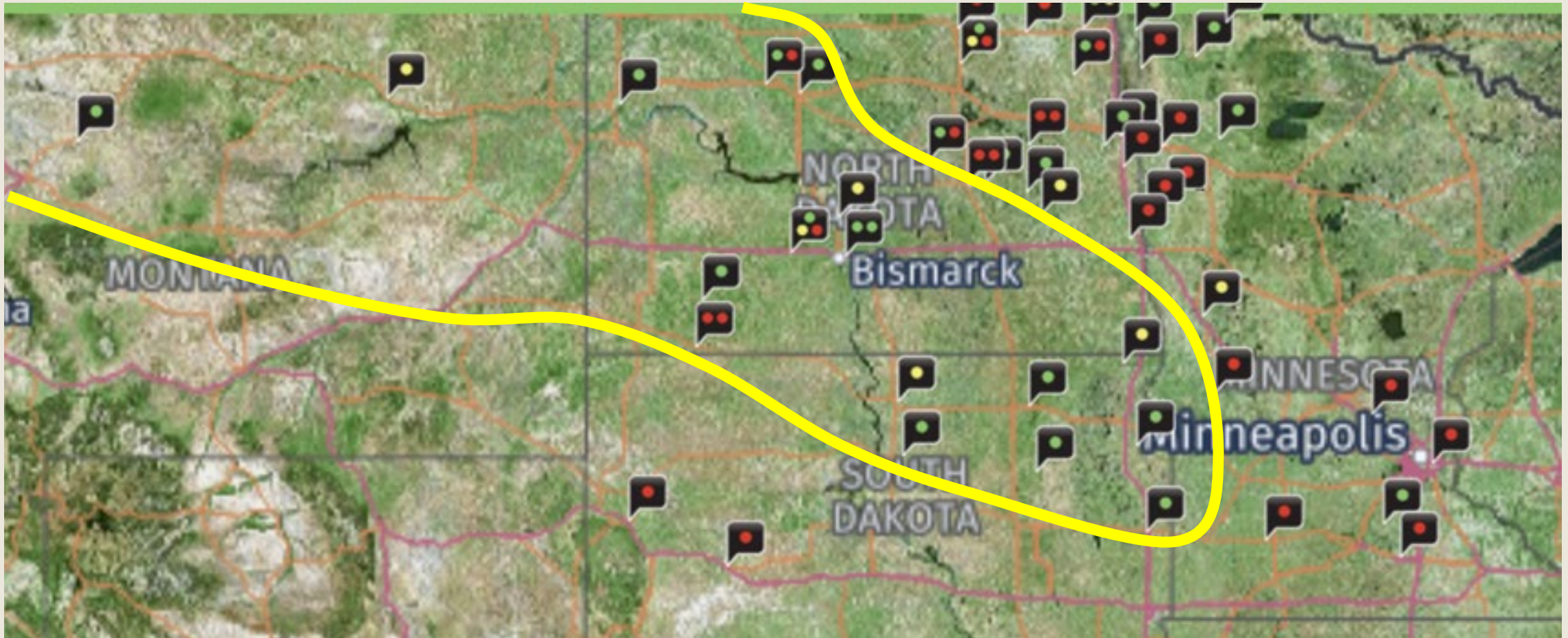
HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

CROPLAN



# CP3119A



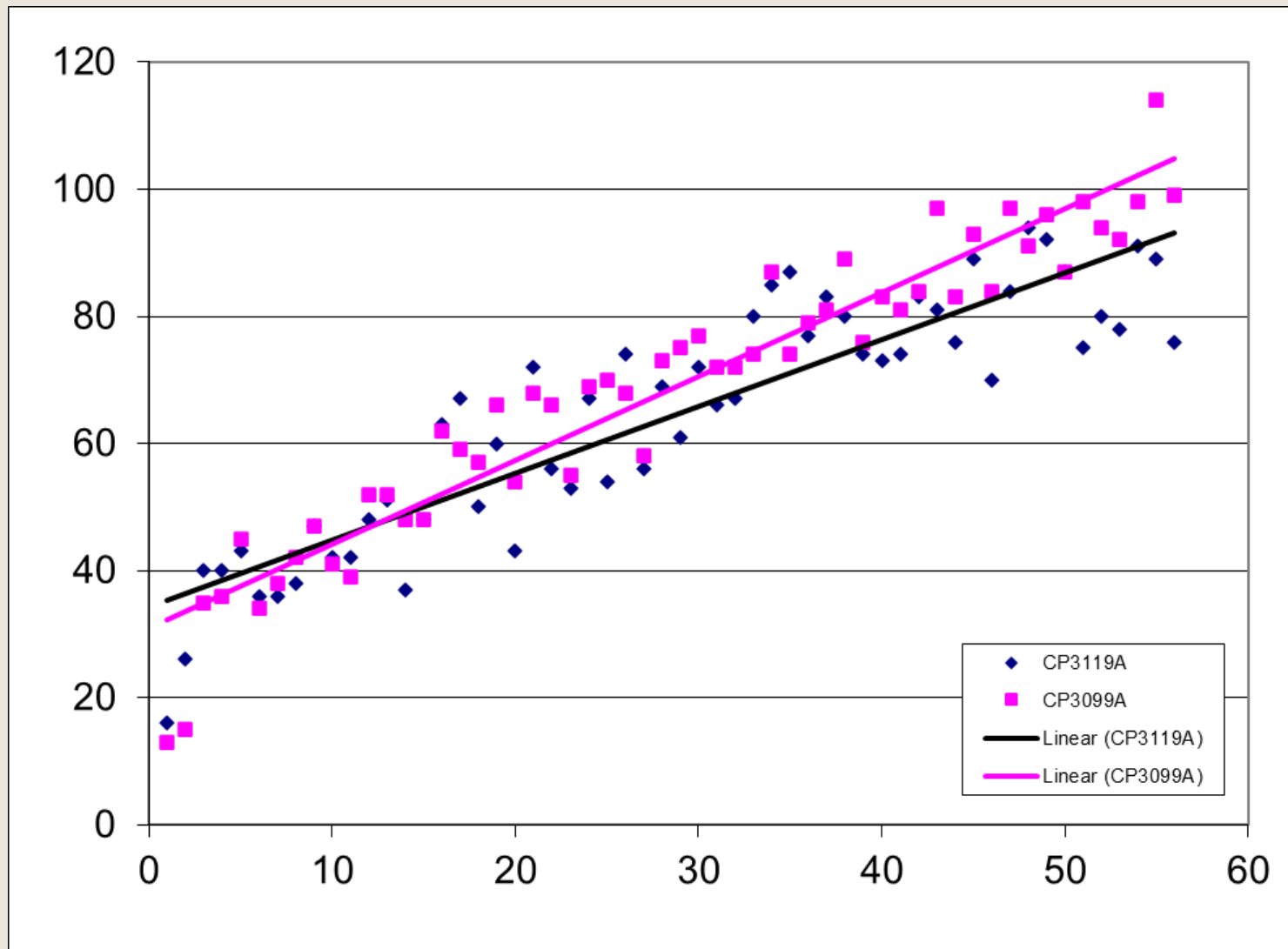
**CP31199A seems to work best as you move south and west, it handles heat stress well and does well in limited environments (plus WSS tolerance)**

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# CP3119A vs CP3099A



CP3119A trends better in lower-yielding environments and the south and west, CP3099A trends better in higher yielding environments and the north and east

Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3119A Production Field



HARD RED SPRING WHEAT

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# CP3188

## Positioning Comments

Excellent performance under stressed conditions, but top-end yield potential on the most productive acres!

Low RTN and lower RTP gives a steady performance across acres, yet still can respond to additional N for more yield and protein

Lower but acceptable protein, with total protein/acre being higher than average

FHB tolerance is above average, fungicide is recommended, manage for BLS

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3188	57	85	T	Y	3	3	3	1	N/A	4	3	1	4	N/A	3	4	L	M	NS	M

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# CP3188

## Management Comments

**Population:** 1.0-1.3 M seeds/a; no need to push populations unless straw is desired, but lodging could occur under high yield conditions with increased seeding rate

**Nitrogen:** Lower demand for additional nitrogen. Fertilize for yield goal but additional N could be applied in-season if crop looks good and moisture to fill grain/protein is available

**Other:** Lower populations can help reduce risk of BLS, great western fit but manage for WSS

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3188	57	85	T	Y	3	3	3	1	N/A	4	3	1	4	N/A	3	4	L	M	NS	M

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# CP3188



CP3188

← Nice early season growth, average biomass

Taller plant with finer stems, but height is an advantage under stress →



CP3188



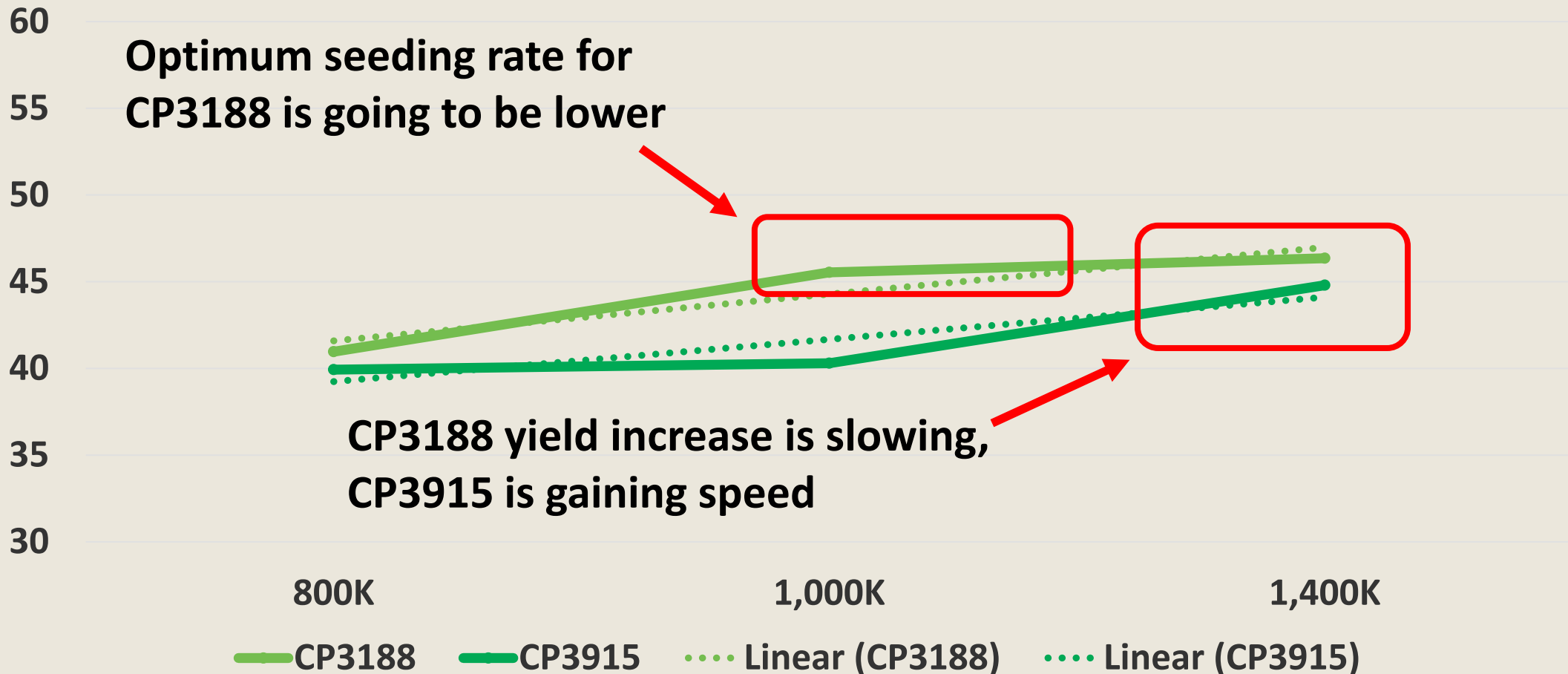


# CP3188/CP3915 Pop Data



HARD RED SPRING WHEAT

### Yield x Population



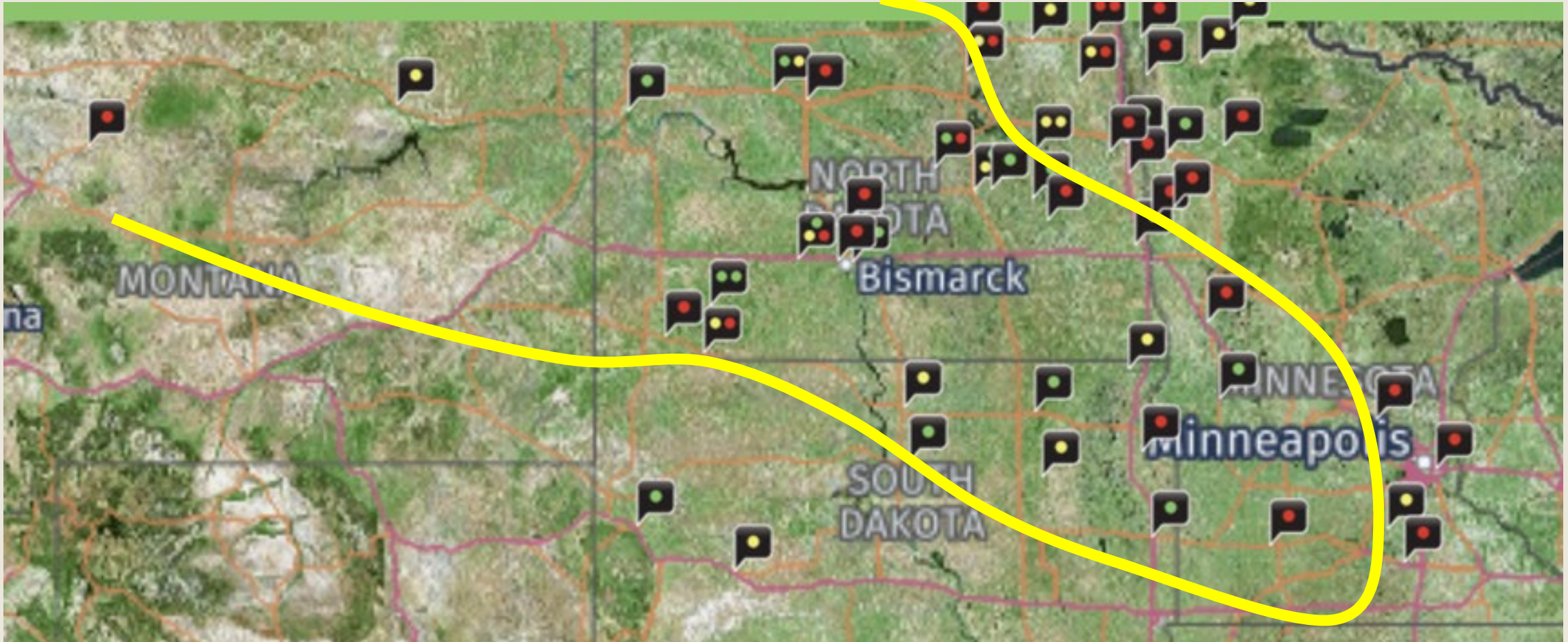
ANYTHING BUT TYPICAL.

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2020 Answer Plot Data: Hannaford, ND; Fessenden, ND; Bismarck, ND; New Salem, ND; Berthold, ND Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



# CP3188



**CP3188 has worked best moving south and west, it handles heat stress well and does well in limited environments (but has big yield potential)**

Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3201AX

## Positioning Comments

Control resistant weeds by utilizing CoAXium technology driven by Aggressor herbicide using an ACCase inhibitor!

Very early product for good yield potential for maturity with good protein levels

Low demand for additional populations but responds well to higher N availability

Medium height and great standability with very good BLS ratings for eastern success!

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3201AX	54	85	M	Y	1	2	3	N/A	N/A	4	N/A	N/A	N/A	3	N/A	2	L	H	NS	L

Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





# CP3201AX

## Management Comments

**Population:** 1.1-1.4 M seeds/a; no need to push populations

**Nitrogen:** Higher response to additional N; in-season applications or higher N soils can add bushels without sacrificing already above average protein levels

**Other:** Be sure to follow crop safety recommendations with Aggressor herbicide

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3201AX	54	85	M	Y	1	2	3	N/A	N/A	4	N/A	N/A	N/A	3	N/A	2	L	H	NS	L

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HARD RED SPRING WHEAT

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# CP3322



## Positioning Comments

Broadly adapted top-end yield product with excellent drought stress, average protein content and semi-solid stem for saw-fly tolerance

Taller plant holds height, creates a thicker canopy for strong western performance; Good straw strength for the east, moderate pops under higher yielding environments

2022 data showed a nice advantage vs checks in lower yielding environments with the ability to keep up in higher yielding environments as well

Medium-late flowering/maturity; average BLS, use fungicide for FHB control

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3322	57	90	T	Y	2	3	3	N/A	N/A	2	3	N/A	N/A	N/A	N/A	3	L	H	NS	L

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# CP3322



## Management Comments

**Population:** 1.1-1.3 M seeds/a; no need to push populations unless straw is desired, but lodging could occur under high yield conditions with increased seeding rate

**Nitrogen:** Higher yield response to additional N; in-season applications or higher N soils can add bushels without sacrificing protein levels

**Other:** Solid stem for WSS tolerance; manage for FHB and BLS in high moisture areas

**Population:** 1.0-1.3 M seeds/a; no need to push populations

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3322	57	90	T	Y	2	3	3	N/A	N/A	2	3	N/A	N/A	N/A	N/A	3	L	H	NS	L

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HARD RED SPRING WHEAT

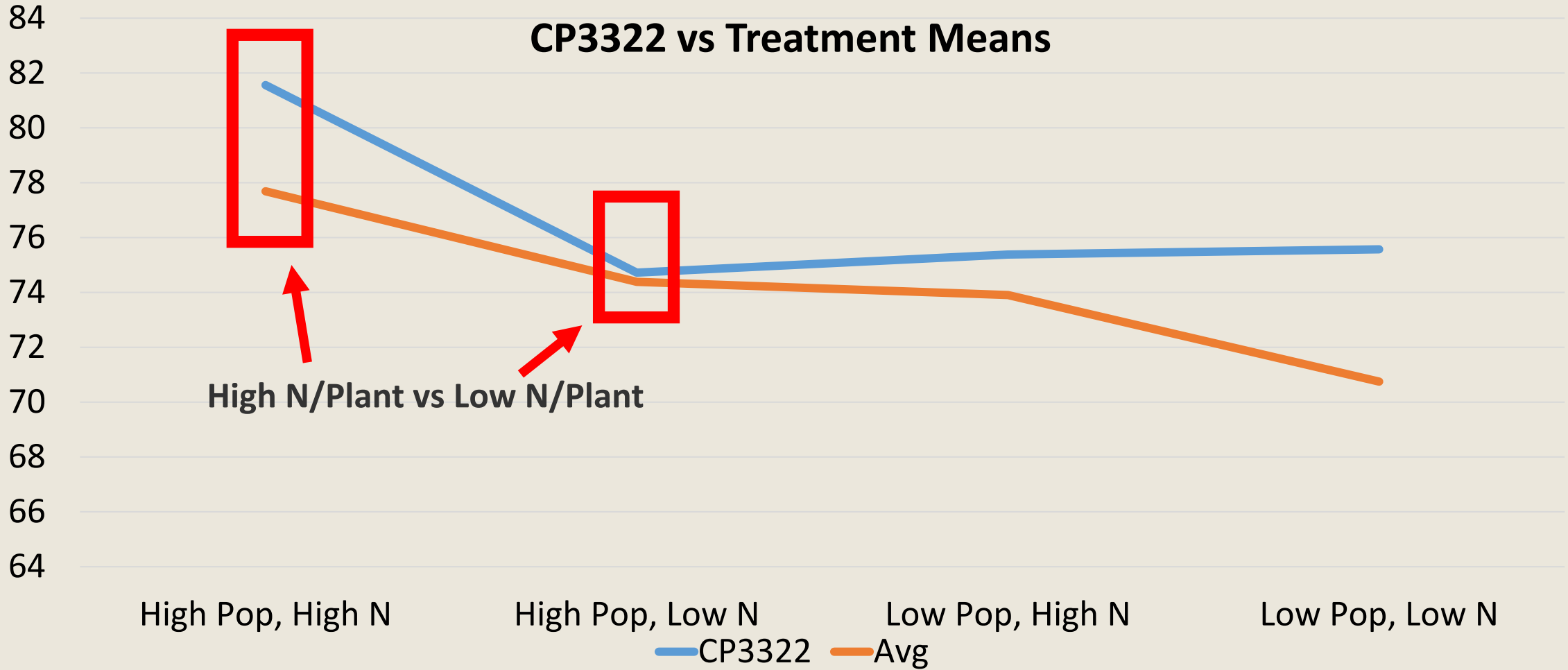
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# CP3322 Response Data



**If low N/plant occurred, CP3322 showed average, but when N increased yields vs the mean increased**

2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.





Ada, MN	78.9
Berthold, ND	90.0
Buxton, ND	72.5
Fessenden, ND	87.1
New Salem, ND	76.5
Rocklake, ND	73.0
Wilton, ND	89.6
<b>Overall Avg</b> →	<b>73.3</b>
<b>Protein</b>	<b>14.3</b>
<b># Protein/Acre</b>	<b>614</b>
Low Yield Environment*	74.5
High Yield Environment**	83.7
Eastern ND***	79.5
Western ND**** →	<b>82.3</b>

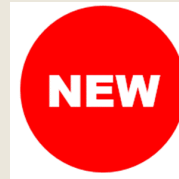
**CP3322 showed high yields overall, but really performed well in lower-yielding environments and Central/Western ND**



2022 Answer Plot Data: Ada, MN; Berthold, Buxton, Fessenden, New Salem, Rocklake & Wilton, ND. Results are generated from field observations and may change as additional data is gathered. Crop results dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



# CP3360AX



## Positioning Comments

Control resistant weeds by utilizing CoAXium technology driven by Aggressor herbicide using an ACCase inhibitor!

Nicely balanced product (yield & protein) for success across markets

Good agronomics and good yield potential, especially in moderate to higher yielding environments

Medium-late maturity with earlier flowering and longer grain fill, medium plant height

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3360AX	54	84	M	Y	1	3	1	N/A	3	4	3	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A

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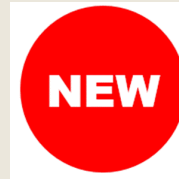
HARD RED SPRING WHEAT

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# CP3360AX



## Management Comments

Population: 1.1-1.4 M seeds/a; RTP data N/A until 2023

**Nitrogen:** Manage appropriately for high yielding wheat, utilize best OM soils, average protein but N could help increase %

**Other:** Be sure to follow crop safety recommendations with Aggressor herbicide

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3360AX	54	84	M	Y	1	3	1	N/A	3	4	3	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A

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HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

CROPLAN



# CP3360AX



HARD RED SPRING WHEAT

HRSW Regional Breakout	
	CP3360AX
Ada, MN	84.2
Berthold, ND	88.8
Buxton, ND	76.7
Fessenden, ND	90.3
New Salem, ND	66.1
Rocklake, ND	85.9
Wilton, ND	74.4
<b>Overall Avg</b>	<b>72.1</b>
<b>Protein</b>	<b>14.3</b>
<b># Protein/Acre</b>	632
Low Yield Environment*	71.4
High Yield Environment**	84.7
Eastern ND***	83.7
Western ND****	78.8

Excellent overall yield with good protein



Excellent potential in high yield environments and Eastern ND/RRV



ANYTHING BUT TYPICAL.

CROPLAN

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# CP3530

## Positioning Comments

Excellent yield potential and strong protein variety, regularly a top volume product in North Dakota wheat acreage – very stable product

Performs best at moderate plant populations (1.3-1.5 M seeds/acre)

Good fusarium head blight with strong stem rust & BLS; good leaf rust tolerance

Good standability with moderate pops on productive soils, data indicates higher yield potential when populations are increased in environments with lower lodging risk

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3530	57	87	T	Y	4	2	2	2	3	4	2	4	1	3	3	2	M	M	NS	M

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# CP3530

## Management Comments

**Population:** 1.3-1.5 M seeds/a; seed higher (even up to 1.8 M) in areas not prone to lodging; research shows yield increase with higher pops but can lead to lodging in higher moisture environments or higher organic matter soils

**Nitrogen:** Will respond to additional in-season N if yield environment supports higher yield potential (front loading can result in excessive stem growth)

**Other:** Can increase populations in less lodge-prone area for increased grain yield and if straw yield is important

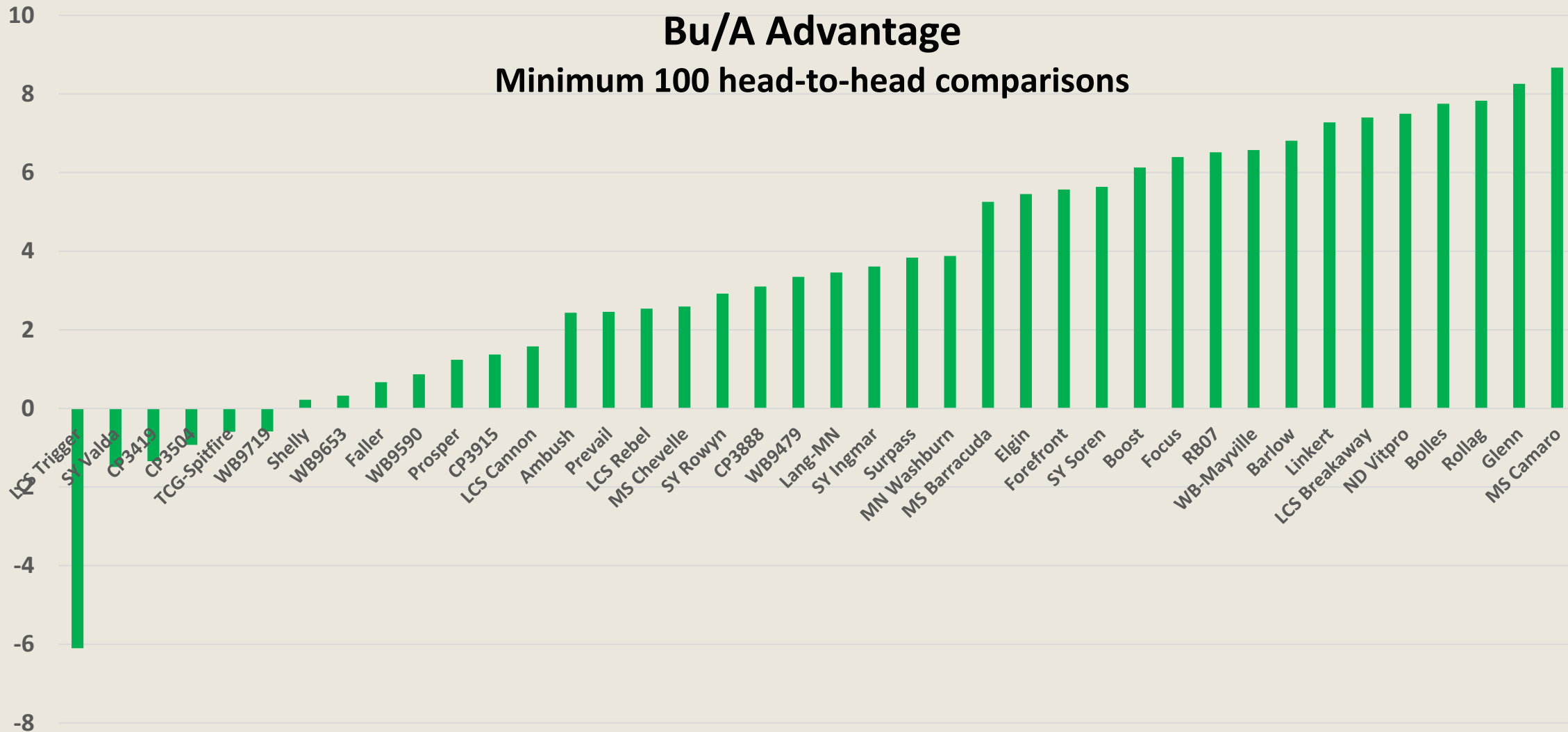
Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3530	57	87	T	Y	4	2	2	2	3	4	2	4	1	3	3	2	M	M	NS	M

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# CP3530 vs Key Checks



HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

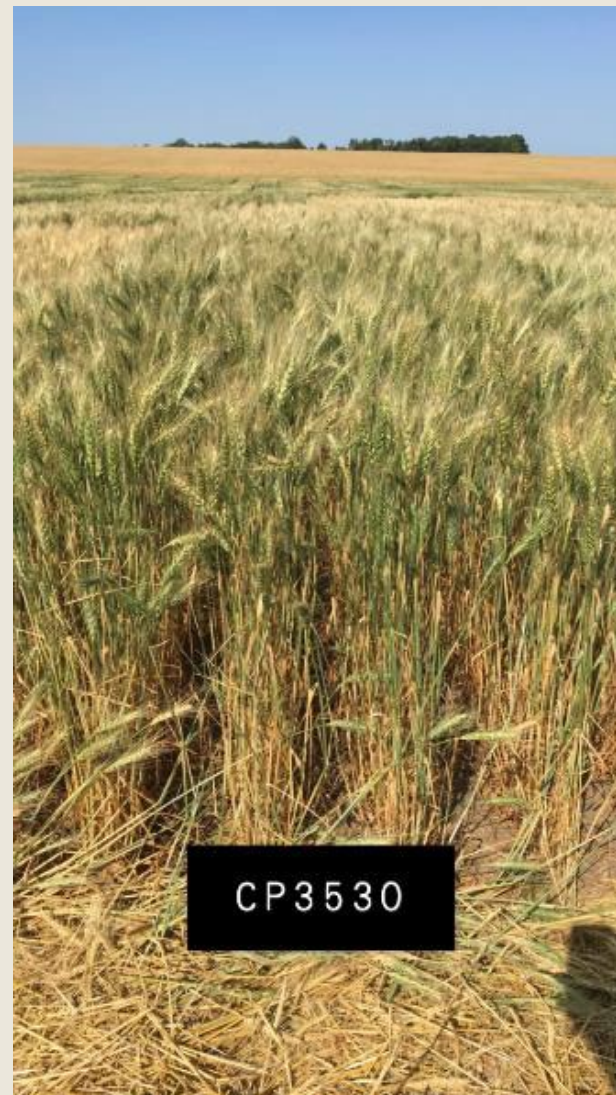
CROPLAN

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# CP3530



HARD RED SPRING WHEAT

ANYTHING BUT TYPICAL.

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# CP3915

## Positioning Comments

High yield potential and very good protein combined with great straw strength

Excellent agronomics, fast early canopy, very good overall disease package including excellent BLS tolerance (among the best in the industry) and very good FHB

Excels under higher yield environments but also stable in lower yielding environments – use caution on droughty/low N acres

Data shows high RTP, recommend seeding @ 1.4-1.7 M seeds/acre

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3915	55	86	M	Y	1	2	1	1	2	4	2	1	1	N/A	3	1	H	M	NS	M

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# CP3915

## Management Comments

**Population:** 1.4-1.7 M seeds/a; (can seed higher on better ground, but should seed lower (1.2-1.4 M in dryland west or lighter soils to manage its elevated demand for nutrients and moisture)

**Nitrogen:** Increased N levels or in-season N will help increase both yield and protein

**Other:** Early maturing plant with great disease and agronomic package make this a low-risk product to grow in offensive environments

Variety	Days to Heading	Days to Maturity	Height	Awns	Standability	Protein	Test Weight	Sprouting	Baking Quality	WSS	FHB	Leaf Rust	Stem Rust	Stripe Rust	Leaf Disease	BLS	Bu/A RTP	Bu/A RTN	% Pro RTP	% Pro RTN
CP3915	55	86	M	Y	1	2	1	1	2	4	2	1	1	N/A	3	1	H	M	NS	M

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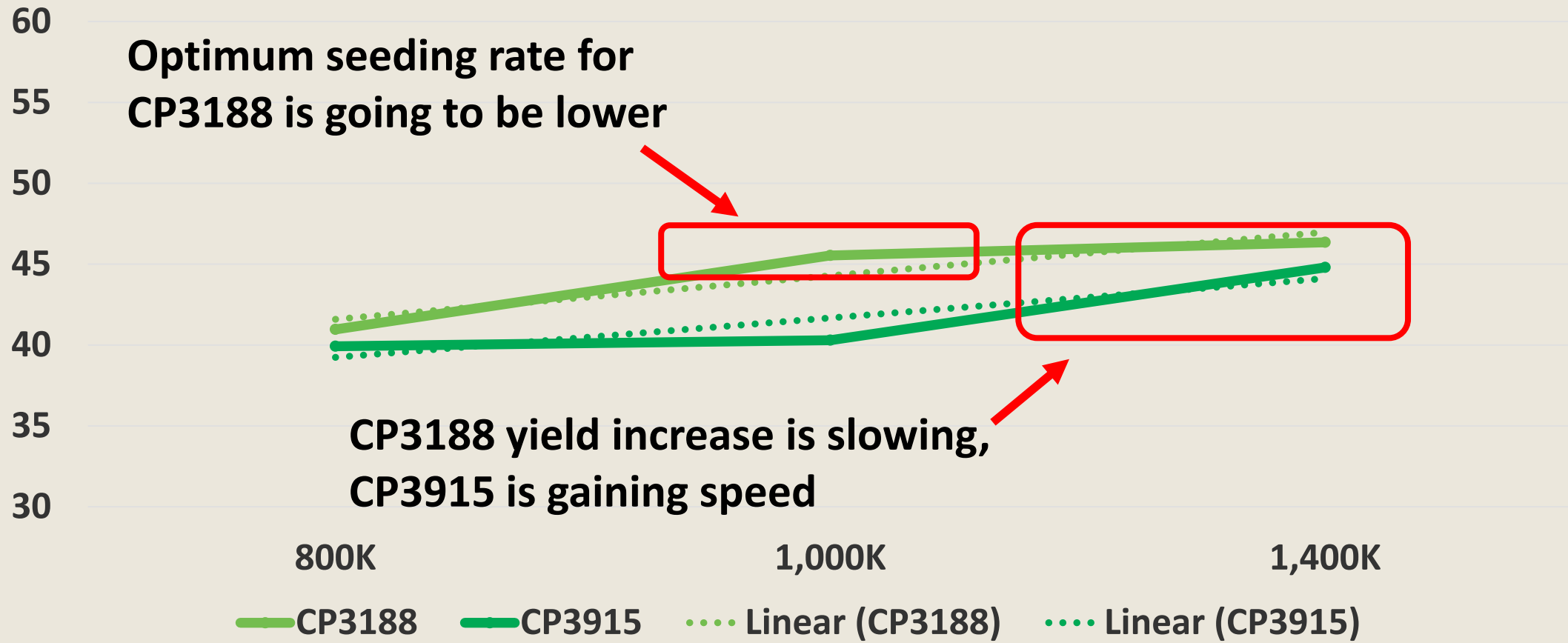


# CP3915/CP3188 Pop Data



HARD RED SPRING WHEAT

### Yield x Population



ANYTHING BUT TYPICAL.

CROPLAN

2020 Answer Plot Data: Hannaford, ND; Fessenden, ND; Bismarck, ND; New Salem, ND; Berthold, ND Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.

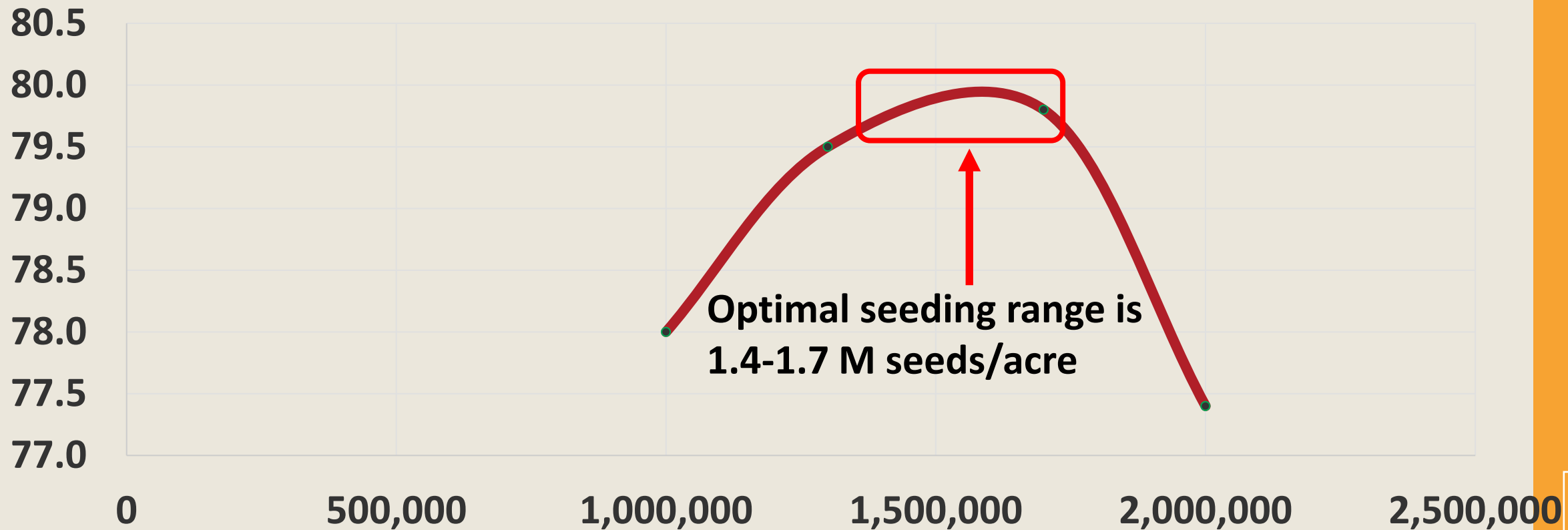


# CP3915 Pop Curve



HARD RED SPRING WHEAT

## Bu/Acre by Seeding Rate



ANYTHING BUT TYPICAL.

CROPLAN

2020 Answer Plot Data: Hannaford, ND; Fessenden, ND; Bismarck, ND; New Salem, ND; Berthold, ND Results are generated from field observations and may change as additional data is gathered. Crop results are dependent on the impact of many factors beyond the control of WinField United including without limitation, reduced performance due to weather, soil variations and may even reflect differences in agronomic practices.



# CP3915



HARD RED SPRING WHEAT

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Thank you!