




**HUMA**<sup>TM</sup>  
**GRO**<sup>®</sup>

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*2016 Trials*

# Corn and Soybeans in MN





SOUTHWEST

MINNESOTA STATE UNIVERSITY™

AGRONOMY FIELD TRIALS



# Huma Gro

- Field Corn Trial (Phosphorus) Super Phos
- 200 Bu corn recommendation on P
- (TREATMENTS) (9 Blocks)
  - Apply 100% of recommended P with Super Phos
  - Apply 50% of recommended P with Super Phos 50% and 10-34-0 50%
  - Control 10-34-0 phosphorus at recommended level
  - Note: Pre Mix Super Phos and 10-34-0 48 Hrs. before application!!
  - **PRE EMERGE (VERDICT @ 18 OZ/A) = 4.46 OZ**



# Huma Gro

- Soybean nutrient trials with Breakout, Vitol & Lucky 7.
  - (TREATMENTS) **(12 Blocks)**
    - A. Apply **Breakout (1.5 qt/A & Lucky 7 @ R1) (3 Blocks)**
    - B. Apply **Vitol @ 1qt/A & Lucky 7 @ 1Qt/A @ R3 (3 blocks)**
    - C. Apply **C1. (Breakout plus Lucky 7 @ 1qt R1) C2. (Vitol @ 1qt/A plus Lucky 7 @ 1Qt/A @ R3-R4.) (3 Blocks)**
    - D. **Control: base fertility nothing foliar. (3 Blocks)**
- PRE EMERGE HERBICIDE (VERDICT @ 5 OZ/A) = 1.65 OZ**



**2015 SMSU RESEARCH TRIAL SUMMARY**

**HUMA GRO TRIALS/ASPECT AG**

**SUPER PHOS™ PHOSPHORUS EVALUATION ON CORN**

10-34-0 100% Recommended P = 18.38/gpa

TREATMENTS	REPLICATE 1	REPLICATE 2	AVERAGE YIELD	RANK
100% Recommended P W/SUPER PHOS™ ONLY	302.09	261.41	281.75	1
50% Recommended P W/SUPER PHOS™	266.02	257.56	261.79	3
100% Recommended P (10-34-0 18.38/gpa)	204.11	161.08	182.6	2

**BREAKOUT™ VITOL™ NUTRIENT TRIAL SOYBEANS**

BREAKOUT™ @ 1.5 QT/A BLOOM	60.76	54.89	57.83	1
VITOL™ @ 1QT/A R3	47.67	51.34	49.51	4
BREAKOUT™ 1 QT/A R1 FB VITOL™ 1QT/A R3	62.81	45.68	54.25	2
CHECK	57.79	47.08	52.44	3



# Full Huma Gro Program: Potatoes











1 <sup>st</sup> App 6-2-16	At Planting	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons	60 Days Totals	1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1+	.75+	.75	1.5	1.5	1.5	1.2	1.2	1	10.5	37.5	3.75 G	4 G + 40oz	>>>	>>>
Super Phos	.5+	.25+	.25	.25	2.5	2.5	.25	.25	.25	2.5	18.75	3qts + 16oz	1 G	>>>	>>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5	7.5	2qts + 16oz	1qt + 11oz	>>>	>>>
44 Mag		.25		Analysis							17.5	1qt + 12oz	1qt + 11oz	>>>	>>>
Max Pak		.25		Analysis						.25	2.5	1qt + 12oz	1qt + 11oz	>>>	>>>
Soil Max	.5									.5	2.5	2qts + 24oz	2qts + 22oz	>>>	>>>
Breakout	.25									.25	1.25	1qt + 12oz	1qt + 11oz	>>>	>>>
SurfMax												24oz+ 4oz	24oz+ 10oz	>>>	>>>
Added N		1.5	1	1	1	1									

All rates are in gallons. Application rates are **per acre**. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.

2nd App 6-16-16	At Planting	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons	60 Days Totals	1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1+	.75+	.75	1.5	1.5	1.5	1.2	1.2	1	10.5	37.5	2G + 4oz	2 G + 1qt	>>>	>>>
Super Phos	.5+	.25+	.25	.25	2.5	2.5	.25	.25	.25	2.5	18.75	1qt + 5oz	1qt + 12oz	>>>	>>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5	7.5	2qts + 10oz	2qts + 21oz	>>>	>>>
44 Mag		.25		Analysis							17.5				
Max Pak		.25		Analysis						.25	2.5				
Soil Max	.5									.5	2.5				
Breakout	.25									.25	1.25				
Added N		1.5	1	1	1	1									

All rates are in gallons. Application rates are **per acre**. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.

<b>3<sup>rd</sup> App 6-29-16</b>	At Planting	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons	60 Days Totals	<b>60+ Days</b>	1st Set 1.16 /a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5	37.5		3g+ 3qts	>>	>>	>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5	18.75		2qts	>>	>>	>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5	7.5		2qts + 21oz	>>	>>	>>
44 Mag		.25		Analysis							17.5		1qt+	>>	>>	>>
Max Pak		.25		Analysis						.25	2.5		1qt+ 10oz	>>	>>	>>
Soil Max	.5									.5	2.5					
Breakout	.25									.25	1.25					
Z-Max													10oz	>>	>>	>>
Added N		1.5	1	1	1	1										

All rates are in gallons. Application rates are **per acre**. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.



<b>4th App 7-14-16 7-20/21 actual</b>	At Planting	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons	60 Days Totals	<b>4<sup>th</sup> App per acre</b>	1st Set 1.16 /a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5	37.5	<b>7</b>	Split 3.5 X2	3.5 X2	>>	>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5	18.75	<b>2.5</b>	3G	3G+ 42oz	>>	>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5	7.5	<b>.5</b>	2Q+ 16oz	2Q+ 21oz	>>	>>
44 Mag		.25		Analysis							17.5	<b>1</b>	1G+ 20oz	1G+ 42oz	>>	>>
Max Pak		.25		Analysis						.25	2.5	<b>.25</b>	1Q+ 6oz	1Q+ 12oz	>>	>>
Soil Max	.5									.5	2.5	<b>.25</b>	1Q+ 6oz	1Q+ 12oz	>>	>>
Breakout	.25									.25	1.25	<b>X</b>				
Z-Max												<b>X</b>				
Added N		1.5	1	1								<b>X</b>				
Iron												<b>.25</b>	1Q+ 6oz	1Q+ 12oz	>>	>>
Mang												<b>16oz</b>	20oz	22oz	>>	>>
Copper												<b>16oz</b>	"	"	"	"
Boron												<b>.25</b>	1Q+ 6oz	1Q+ 12oz	>>	>>
Activol												<b>.5</b>	2Q+ 16oz	2Q+ 21oz	>>	>>

7-25-16 & 7-29-16 After 4 <sup>th</sup> App	At Plant ing	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons		Soil app 7-25	1st Set 1.16 /a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5			3.5G	3.5	>>>	>>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5						
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5						
44 Mag		.25		Analysis												
Max Pak		.25		Analysis						.25						
Soil Max	.5									.5						
Breakout	.25									.25						
SURFMAX													1QT	>>	>>	>>
Added N												7-29 FOLI AR-N	3G	3	>>	>>

All rates are in gallons. Application rates are per acre. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.

5 <sup>th</sup> APP 8-2&3	At Planting	0-15 Days	15-30 Days	30-45 Days	45-60 Days	60-75 Days	75-90 Days	90-105 Days	105-120 Days	Total gallons			1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5			5G	>>	>>>	>>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5			3G	3		
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5			3qt	>>	>>	>>
44 Mag		.25		Analysis									.5	>>	>>	>>
Max Pak		.25		Analysis						.25			.5	>>	>>	>>
Activol													.5	>>	>>	>>
Promax													1G	>>	>>	>>
Manganese													1qt	>>	>>	>>
7-28-16 Foliar App																
Super Nitro													3.5G	>>	>>	>>

All rates are in gallons. Application rates are per acre. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.



6 <sup>th</sup> APP 8-18-16	At Plant ing	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons			1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5			3G	>>	>>>	>>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5			0	>>	>>	>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5			0	>>	>>	>>
Max Pak		.25		Analysis						.25			.5	>>	>>	>>
Boron													.5	>>	>>	>>
Calcium													1qt	>>	>>	>>
ASAP 9-23 Soil Max													.5	>>	>>	>>
Calcium													2qt	>>	>>	>>
Super Nitro													3.5G	>>	>>	>>
Super Phos													2G	>>	>>	>>
Proud 3 foliar																

7 <sup>th</sup> APP 9-3-16 Foliar	At Plant ing	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons			1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5			.5	>>	>>	>>
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5			.5	>>	>>	>>
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5			.5	>>	>>	>>
Jackpot													2.5qt	>>	>>	>>
Calcium													2qt	>>	>>	>>
8-27-16 App Foliar																
Super K													2qts	>>	>>	>>
Calcium													2qts	>>	>>	>>

All rates are in gallons. Application rates are per acre. And all later applications (mainly NPK are subject to analysis) and may change if more or less is needed.

8 <sup>th</sup> APP 9-15-16 Foliar	At Plant ing	0-15 Days	15- 30 Days	30-45 Days	45- 60 Days	60- 75 Days	75- 90 Days	90- 105 Days	105- 120 Days	Total gallons			1st Set 1.16/a	2 <sup>nd</sup> Set 1.33/a	3 <sup>rd</sup> Set 1.33/a	4 <sup>th</sup> Set 1.33/a
Super Nitro	1	.75	.75	1.5	1.5	1.5	1.2	1.2	1	10.5						
Super Phos	.5	.25	.25	.25	2.5	2.5	.25	.25	.25	2.5						
Super K	1	.25	.5	.5	.5	.5	.5	.5	.25	4.5						
Jackpot													2.5qt	>>	>>	>>
Calcium													2.5qt	>>	>>	>>

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Field Notes

Date	Time	Temp	Humidity	Wind	Direction	Clouds	Soil Temp	Moisture	Plant Growth	Notes
10/10/10	10:00	75	60	10	SE	10%	65	10%	Good	
10/10/10	11:00	78	55	15	SE	15%	68	12%	Good	
10/10/10	12:00	80	50	20	SE	20%	70	15%	Good	
10/10/10	13:00	82	45	25	SE	25%	72	18%	Good	
10/10/10	14:00	85	40	30	SE	30%	75	20%	Good	
10/10/10	15:00	88	35	35	SE	35%	78	22%	Good	
10/10/10	16:00	90	30	40	SE	40%	80	25%	Good	
10/10/10	17:00	92	25	45	SE	45%	82	28%	Good	
10/10/10	18:00	95	20	50	SE	50%	85	30%	Good	
10/10/10	19:00	98	15	55	SE	55%	88	32%	Good	
10/10/10	20:00	100	10	60	SE	60%	90	35%	Good	



