

# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

## Trial Information

Trial Sponsor(s): FMC

Objective: Evaluate the efficacy and crop safety of Authority brand herbicides with and without metribuzin and similar competitor PRE herbicides in Enlist soybeans

Crop: Enlist Soybean

Variety: S20-E3

Weed species (pressure): giant ragweed (high-very high)  
lambsquarters (moderate)  
velvetleaf (low)

Herbicide Application(s): PRE – 5/17  
POST – 6/13 (V1 soybean)  
LPOST – 7/7 (R1 soybean)

For the full report see trial #22-ROK-SB13 in the [2022 Wisconsin Weed Science Research Report](#)



**Cropping Systems Weed Science**  
UNIVERSITY OF WISCONSIN-MADISON

The logo for FMC, consisting of the letters 'FMC' in a bold, red, sans-serif font.

# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Trt #	Herbicide (rate acre <sup>-1</sup> )	Injury (%)		Giant Ragweed (%)				Lambsquarters (%)			Velvetleaf (%)			Yield <sup>b</sup> bu acre <sup>-1</sup>	
		6/7	6/13	6/13	6/28	7/7	10/11	6/13	6/28	10/11	6/13	6/28	10/11		
1	Untreated Check	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0 c
<b>Two-Pass – PRE (5/17) fb POST<sup>c</sup> (6/13) fb LPOST<sup>d</sup> (7/7)</b>				<b>POST</b>		<b>LPOST</b>		<b>POST</b>			<b>POST</b>				
2	Authority Supreme (8 fl oz)	0.0	0	10	83	72	95	99	100	100	86	100	100		71.6 ab
3	Authority Supreme (8 fl oz) + Metricor DF (6 oz)	0.0	0	8	82	72	93	100	100	100	98	100	100		70.9 ab
4	Authority Elite (25 fl oz)	0.0	0	11	82	72	91	95	100	100	75	100	100		73.5 ab
5	Authority Elite (25 fl oz) + Metricor DF (6 oz)	1.0	0	26	83	72	89	100	100	100	80	100	100		71.4 ab
6	Authority First (6.4 oz)	0.8	0	78	83	71	100	100	100	100	96	99	100		72.8 ab
7	Authority First (6.4 oz) + Metricor DF (6 oz)	1.5	0	71	81	70	100	100	100	100	94	100	100		75.3 a
8	Kyber (1 pt)	4.8	0	59	80	67	97	100	100	100	98	100	100		74.5 ab
9	Zidua PRO (6 fl oz)	1.5	0	73	83	71	98	100	100	100	100	100	100		73.8 ab
10	Boundary (29 fl oz)	1.5	0	11	83	72	96	95	100	100	86	99	100		69.5 b
11	Anthem Maxx (4 fl oz)	1.3	0	3	83	74	95	60	99	100	63	98	100		70.9 ab
12	Anthem Maxx (4 fl oz) + Metricor DF (6 oz)	0.5	0	13	83	72	92	100	100	100	98	100	100		71.2 ab
<b>LSD (<math>\alpha=0.10</math>)</b>		<b>1.8</b>	<b>ns</b>	<b>18</b>	<b>ns</b>	<b>ns</b>	<b>ns</b>	<b>8</b>	<b>&lt;1</b>	<b>ns</b>	<b>12</b>	<b>ns</b>	<b>ns</b>		<b>5.6</b>
<b>p value</b>		<b>.006</b>	<b>1.0</b>	<b>&lt;.001</b>	<b>0.942</b>	<b>0.791</b>	<b>0.480</b>	<b>&lt;.001</b>	<b>0.003</b>	<b>1.0</b>	<b>&lt;.001</b>	<b>0.575</b>	<b>1.0</b>		<b>&lt;0.001</b>

<sup>a</sup>Visual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

<sup>b</sup>Yield values with the same letter are not significantly different.

<sup>c</sup>POST application - Enlist One (32 fl oz) + Roundup PowerMAX3 (32 fl oz) + AMS (8.5 lb/100 gal) applied to all treatments except the untreated check.

<sup>d</sup>LPOST application - Liberty (32 fl oz) + AMS (2 lb/a) applied to all treatments except the untreated check.

# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/7  
21 days after the PRE application



21 days after PRE (6/7)  
Untreated Check





21 days after PRE (6/7)  
PRE: 8 fl oz Authority Supreme





21 days after PRE (6/7)

PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF





21 days after PRE (6/7)  
PRE: 25 fl oz Authority Elite





21 days after PRE (6/7)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF





21 days after PRE (6/7)  
PRE: 6.4 oz Authority First





21 days after PRE (6/7)  
PRE: 6.4 oz Authority First + 6 oz Metricor DF





21 days after PRE (6/7)  
PRE: 1 pt Kyber





21 days after PRE (6/7)  
PRE: 6 fl oz Zidua PRO





21 days after PRE (6/7)  
PRE: 29 fl oz Boundary





21 days after PRE (6/7)  
PRE: 4 fl oz Anthem Maxx





21 days after PRE (6/7)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF





# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/13  
27 days after the PRE application  
The day of the POST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications



27 days after PRE (6/13)

0%

Untreated Check





27 days after PRE (6/13)  
PRE: 8 fl oz Authority Supreme

10%





27 days after PRE (6/13)

8%

PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF





27 days after PRE (6/13)  
PRE: 25 fl oz Authority Elite

11%





27 days after PRE (6/13)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF

26%





27 days after PRE (6/13)  
PRE: 6.4 oz Authority First

78%





27 days after PRE (6/13)

71%

PRE: 6.4 oz Authority First + 6 oz Metricor DF





27 days after PRE (6/13)  
PRE: 1 pt Kyber

59%





27 days after PRE (6/13)  
PRE: 6 fl oz Zidua PRO

73%





27 days after PRE (6/13)  
PRE: 29 fl oz Boundary

11%





27 days after PRE (6/13)  
PRE: 4 fl oz Anthem Maxx

3%





27 days after PRE (6/13)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF

13%





# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 6/28  
42 days after the PRE application  
15 days after the POST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications



42 days after PRE (6/28)

0%

Untreated Check





15 days after POST (6/28)

PRE: 8 fl oz Authority Supreme *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb*

82%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 25 fl oz Authority Elite *fb*

82%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 6.4 oz Authority First fb

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 6.4 oz Authority First + 6 oz Metricor DF *fb*

81%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 1 pt Kyber *fb*

80%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 6 fl oz Zidua PRO fb

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 29 fl oz Boundary *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 4 fl oz Anthem Maxx *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





15 days after POST (6/28)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb*

83%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 7/7

51 days after the PRE application

24 days after the POST application

The day of the LPOST application

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications



51 days after PRE (7/7)  
Untreated Check

0%





24 days after POST (7/7)

PRE: 8 fl oz Authority Supreme *fb*

72%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





**24 days after POST (7/7)**

**PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb***

**72%**

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS**





24 days after POST (7/7)

PRE: 25 fl oz Authority Elite *fb*

72%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb*

72%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 6.4 oz Authority First fb

71%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 6.4 oz Authority First + 6 oz Metricor DF *fb*

70%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 1 pt Kyber *fb*

67%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 6 fl oz Zidua PRO fb

71%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 29 fl oz Boundary *fb*

72%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 4 fl oz Anthem Maxx *fb*

74%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





24 days after POST (7/7)

PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb*

72%

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS





# Authority Brand Soybean Herbicide Programs (Janesville, WI 2022)

Plot pictures taken on 10/11

The number in the upper right-hand corner is the average %  
giant ragweed control of 4 replications



End of Season (10/11)  
Untreated Check

0%





**End of Season (10/11)**

**PRE: 8 fl oz Authority Supreme *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**95%**





**End of Season (10/11)**

**PRE: 8 fl oz Authority Supreme + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**93%**





**End of Season (10/11)**

**PRE: 25 fl oz Authority Elite *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**91%**





**End of Season (10/11)**

**PRE: 25 fl oz Authority Elite + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**89%**





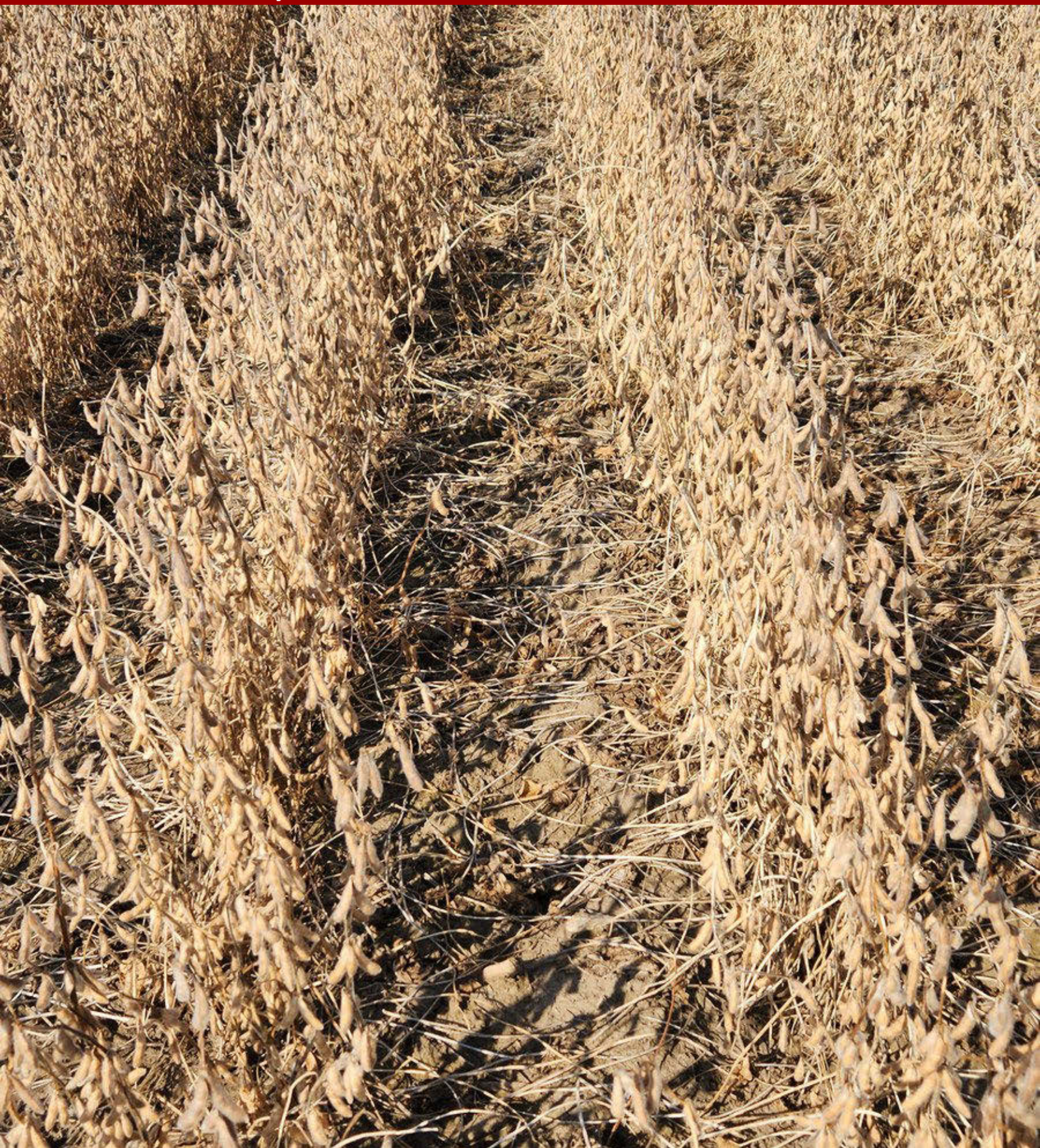
**End of Season (10/11)**

**PRE: 6.4 oz Authority First *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**100%**





**End of Season (10/11)**

**PRE: 6.4 oz Authority First + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**100%**





**End of Season (10/11)**

**PRE: 1 pt Kyber *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**97%**





End of Season (10/11)

PRE: 6 fl oz Zidua PRO *fb*

POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb*

LPOST: 32 fl oz Liberty + AMS

98%





**End of Season (10/11)**

**PRE: 29 fl oz Boundary *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**96%**





**End of Season (10/11)**

**PRE: 4 fl oz Anthem Maxx *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**95%**





**End of Season (10/11)**

**PRE: 4 fl oz Anthem Maxx + 6 oz Metricor DF *fb***

**POST: 32 fl oz Enlist One + 32 fl oz Roundup PowerMAX3 + AMS *fb***

**LPOST: 32 fl oz Liberty + AMS**

**92%**

