

Ultra Blazer in Sugarbeet

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Ultra Blazer in Sugarbeet

- PPO inhibitor, group 14 applied postemergence
- Light activated contact herbicide forming highly reactive compounds in the plants that rupture cell membranes causing fluids to leak
- Injury symptoms can occur 1 to 2 hours after application. Symptoms appear most quickly with bright, sunny conditions and humidity at application.
- Environment conditions will affect Ultra Blazer injury to sugarbeet
- Use 15 to 20 gpa water volume (label says 10 to 20 gpa) and flat fan nozzles to 'paint the plant' ensuring good coverage.
- Oil-based adjuvants with Ultra Blazer increase waterhemp control and sugarbeet injury as compared to non-ionic surfactant with Ultra Blazer. Likewise, herbicides mixtures including glyphosate will potentially increase sugarbeet injury.





1 July 2018

Ultra Blazer at 2 to 4 lf / Ultra Blazer at 6 lf



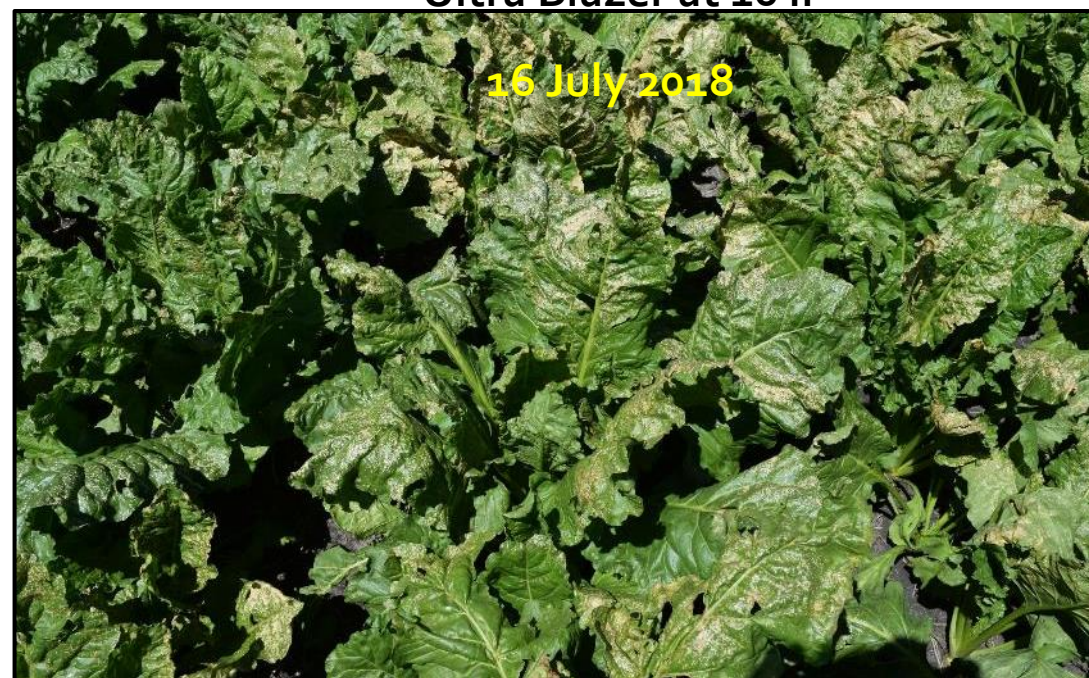
8 July 2018

Ultra Blazer at 10 lf



8 July 2018

Ultra Blazer at 6 lf



16 July 2018

Ultra Blazer at 12 lf

Sugarbeet necrosis (7 DAT) and growth reduction (14 DAT) in response to treatment across four locations, 2019-2020.^a

			Necrosis		Growth Reduction	
Treatment ^a	Rate	Timing	2019	2020	2019	2020
	--fl oz/A--	--lf-stage--	-----% injury-----			
RUPM/RUPM	28/28	2 / 4-6	0 a	1 a	0 a	3 a
Ultra Blazer/Ultra Blazer	8/8	2 / 4-6	25 b	67 c	44 b	60 b
Ultra Blazer	16	2	34 b	79 c	36 b	69 b
Ultra Blazer	16	4-6	39 b	31 b	9 a	11 a
Ultra Blazer	16	10-12	23 b	19 ab	8 a	11 a
Ultra Blazer	24	4-6	41 b	37 b	11 a	15 a
P-Value			0.0062	<0.0001	0.0017	<0.0001

^aMeans within a main effect not sharing any letter are significantly different by the LSD at the 10% level of significance.

^bRoundup PowerMax with NIS at 0.25%v/v; Ultra Blazer with NIS at 0.125%

**Ultra Blazer at 16 fl oz/A plus Prefer 90
NIS at 0.125% v/v, Lake Lillian, MN**



PowerMax at 28 fl oz/A + NIS
+ AMS, 6-lf stage



Ultra Blazer at 16 fl oz/A + NIS, 6-leaf stage



Ultra Blazer at 16 fl oz/A + NIS, 10-12 leaf stage

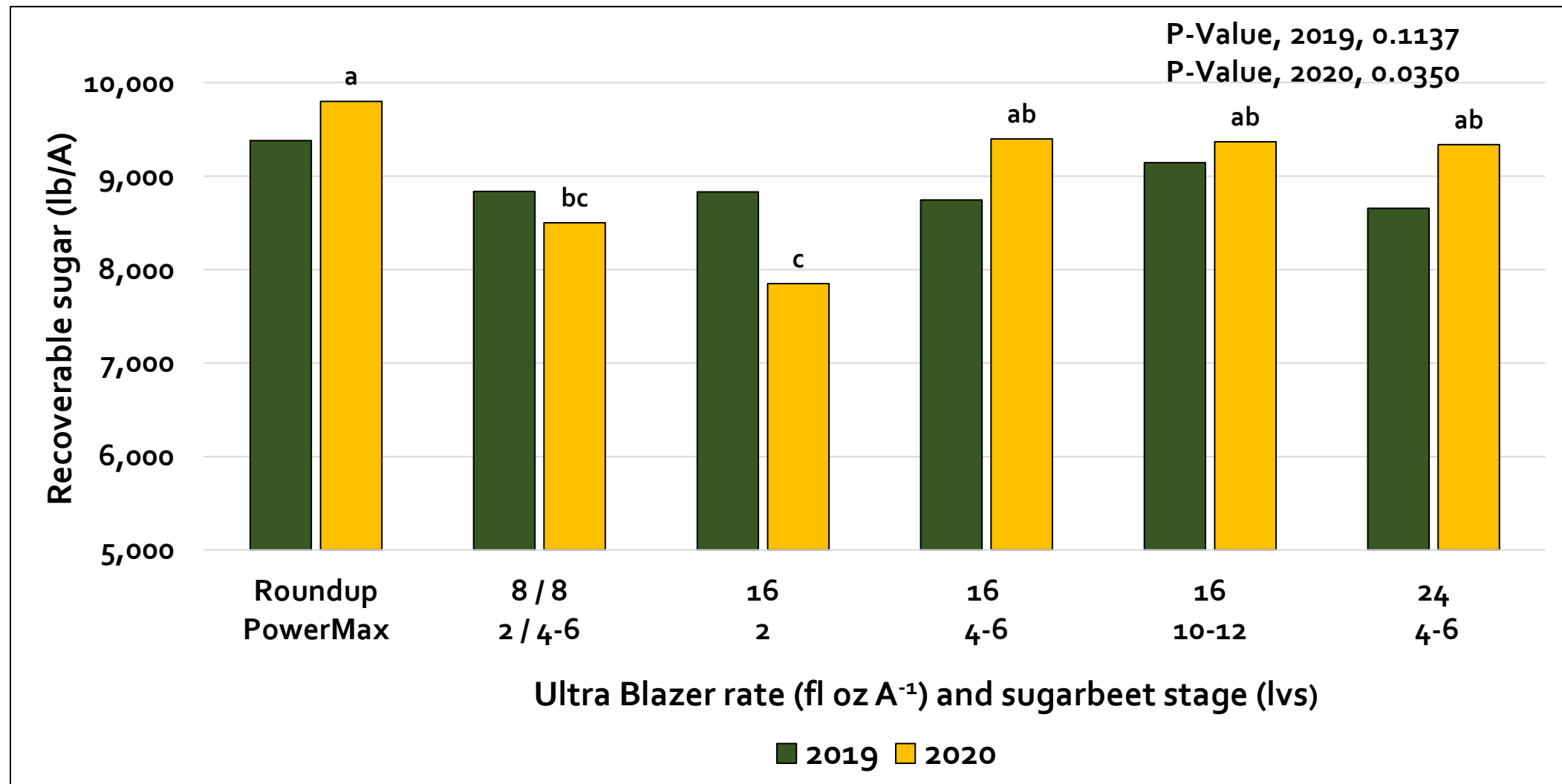


Sugarbeet injury is bronzing to the leaves

- Ultra Blazer at 16 lf oz/A + NIS
- Applied at the 12-leaf stage
- 4 DAT
- Lake Lillian, MN



Recoverable sucrose in response to Ultra Blazer rate and growth stage, across four locations, 2019-2020



Sugarbeet visible necrosis injury and weed control in response to treatment across three locations, 2019

		10+ Days after Treatment	
Treatment	Rate	Sugarbeet Necrosis	Weed Control
	fl oz/A	% visible injury	% visible control
PowerMax + NIS / PowerMax + NIS ^a	28/28	1 a	37 a
Ultra Blazer	16	20 ab	43 a
Ultra Blazer + NIS ^b	16	32 b	60 b
Ultra Blazer + COC ^c	16	63 c	82 c
Ultra Blazer + MSO ^d	16	74 c	91 c
Ultra Blazer + HSMOC ^e	16	75 c	91 c
P-Value		0.0009	<0.0001

^a NIS at 0.25% v/v.

^b NIS at 0.125% v/v.

^c COC at 1 pt/A

^d MSO at 1 %v/v.

^e HSMOC at 1.5 pt/A

Sugarbeet necrosis and growth reduction 14 DAT in response to treatment across locations, 2019 and 2020

Treatment	Rate	Sugarbeet injury	
		2019	2020
	fl oz/A	--% --	--%--
PowerMax + NIS / PowerMax + NIS ^a	28/28	3a	5 a
Ultra Blazer + NIS ^b	16	21 ab	10 a
Ultra Blazer + PowerMax + NIS ^b	16 + 28	39 c	17 abc
Ultra Blazer + Stinger + NIS ^b	16 + 4	16 ab	13 a
Ultra Blazer + PowerMax + Stinger + NIS ^b	16 + 28 + 4	41 c	25 bc
P-Value		0.0120	0.0145

^aNIS at 0.25% v/v

^bNIS at 0.125% v/v

Waterhemp control ¹⁴ DAT in response to treatment across locations, 2019 and 2020

Treatment	Rate	Waterhemp	
		2019	2020
	fl oz/A	----% visible control----	
PowerMax + NIS / PowerMax + NIS ^a	28/28	37 d	44 c
Ultra Blazer + NIS ^b	16	60 c	55 bc
Ultra Blazer + PowerMax + NIS ^b	16 + 28	87 a	76 ab
Ultra Blazer + Stinger + NIS ^b	16 + 4	74 b	75 ab
Ultra Blazer + PowerMax + Stinger + NIS ^b	16 + 28 + 4	91 a	85 a
P-Value		<0.0001	0.0093

^aRoundup PowerMax with NIS at 0.25% v/v

^bUltra Blazer at 0.125% v.v

Roundup PowerMax check, applied June 25 2019, 8 DAT



Ultra Blazer at 16 fl oz/acre + NIS, applied June 25 2019, 8 DAT



Ultra Blazer at 16 fl oz/acre + PowerMax + NIS, applied June 25 2019, 8 DAT



PowerMax check, applied June 12 2020, 14 DAT



Ultra Blazer at 16 fl oz/acre + NIS, applied June 12 2020, 14 DAT



Ultra Blazer at 16 fl oz/acre + PowerMax + NIS, applied June 12 2020, 14 DAT



Tips to reduce Ultra Blazer Injury to sugarbeet

- Consideration should be taken on the time of day and the environment (temperature & humidity) in which Ultra Blazer applications are made to reduce injury in sugarbeet, just as when we were using only conventional herbicides for weed control in sugarbeet.
- Risk of injury is increased by high temperatures, over 80F, and sudden changes from a cool, cloudy environment to a hot, sunny environment.
- Considerations:
 - Do not apply in temperatures above 80F
 - Do not apply if forecasted temperature is to be above 80F
 - Wait until late afternoon/early evening, when temperatures start to decrease, to make Ultra Blazer application
 - Do not make applications after 1am if next day temperatures are forecasted to be over 80F
 - Do not tank-mix with anything but glyphosate, NIS, and AMS
 - Maintain a 3-day time interval before and after Ultra Blazer application to apply other pesticides in sugarbeet

Section 18 emergency use label

- Use UPL Ultra Blazer only
- Apply at 16 fl oz/A alone or with glyphosate
- One Ultra Blazer application can be made per season
- Can only be applied by ground equipment. Aerial application is prohibited.
- Target waterhemp less than 4" tall, control is reduced as waterhemp becomes larger
- Pre-Harvest Interval (PHI) = 45 days
- Do not apply Ultra Blazer after August 1st