

Treatments may include both registered and currently unregistered applications.  
Always consult a current label prior to making any pesticide application.

### Mint Herbicide Efficacy - Janesville, WI - 2019

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Location: Angfang Mint Farm - Janesville, WI

#### Plot Information:

Soil Type: Mineral

Variety: Black Mitcham Peppermint

Date Planted: established meadow mint

Row Spacing: n/a (meadow mint)

Plant Spacing: n/a (meadow mint)

Date Harvested: 8/20/19 (center 2.5 ft strip of plot)

Plot Size-Design: 6' x 20', 3 reps

Rating Dates: 5/21, 6/6, 6/18, 7/8

Phytotoxicity Rating Scale: 0% = no crop injury, 100% = dead crop plants

Weed Control Rating Scale: 0% = no control, 100% = complete control

Application Equipment: Backpack CO2 pressure sprayer. GPA 20, PSI 27, MPH 3.3,  
Nozzle: XR8003VS, Nozzle spacing 18", Height 18".

#### Herbicide Application Data:

Date	4/21/19	6/3/19
Time	11:30 AM	10:30 AM
Treatment	Dormant	3-wk POST
Soil Moisture	SF dry	dry
	1" dry	dry
	3" dry	dry
Soil Temp (F°)	SF 51	96.7
	3" 49	72.3
Air Temp (F°)	54	77
Wind (mph - direction)	4-5 N	0
%RH	N/A	N/A
Sky (% clouds)	0%	0%
Crop Stage	-----	
Weed & Size	-----	

**Summary:** Initial injury was observed across all treatments as is typical given the variability in early season growth of tilled mint, but crop recovery was strong in all treatments except where Zidua was tank mixed with Sharpen. In this treatment, injury remained at 20% about 6 weeks prior to harvest. Despite this injury, mint hay yield was similar to or greater than the Sinbar standard across all treatments. Oil yield per acre was significantly greater than all other treatments where Zidua was applied at the lower rate. Weed control was generally good in all herbicide programs with the exception of variable horseweed control.

#### Weed Abbreviations

DAND = Dandelion

PRLE = Prickly Lettuce

HOWE = Horseweed

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Trt No.	Treatment Name	Rate	Unit	Appl Timing	5/21/2019 % Injury	% Weed Control 5/21/19	
						DAND	HOWE
1	UTC - Weedy				0	98.3	91.7
2	Sinbar	0.5 lb ai/a		Dormant	46.7 abc	99.4 ab	100 a
3	Zidua	0.09 lb ai/a		Dormant	43.3 bc	99.4 ab	91.7 ab
4	Zidua	0.18 lb ai/a		Dormant	43.3 bc	94.8 b	88.3 b
5	Sharpen	0.045 lb ai/a		Dormant	50 abc	100 a	100 a
	MSO	1 % v/v		Dormant			
	AMS	2 % v/v		Dormant			
6	Spartan	0.19 lb ai/a		Dormant	40 bc	97.8 ab	95 ab
7	Prowl H2O	0.95 lb ai/a		Dormant	13.3 c	96.7 ab	90 b
8	Zidua	0.09 lb ai/a		Dormant	83.3 a	100 a	100 a
	Sharpen	0.045 lb ai/a		Dormant			
	MSO	1 % v/v		Dormant			
	AMS	2 % v/v		Dormant			
9	Zidua	0.09 lb ai/a		Dormant	43.3 bc	100 a	100 a
	Sinbar	0.5 lb ai/a		Dormant			
10	Zidua	0.09 lb ai/a		Dormant	70 ab	98.9 ab	96.7 ab
	Spartan	0.19 lb ai/a		Dormant			
11	Zidua	0.09 lb ai/a		Dormant	13.3 c	96.7 ab	95 ab
	Prowl H2O	0.95 lb ai/a		Dormant			
12	Spartan	0.19 lb ai/a		Dormant	53.3 ab	97.6 ab	91.7 ab
	Zidua	0.09 lb ai/a		3-wk POST			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).

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Trt No.	Treatment Name	Rate	Unit	Appl Timing	6/6/2019 % Injury	% Weed Control 6/6/2019		
						DAND	HOWE	PRLE
1	UTC - Weedy				3.3	96.7	85	98.3
2	Sinbar	0.5 lb ai/a		Dormant	6.7 ab	100 a	100 a	98.3 -
3	Zidua	0.09 lb ai/a		Dormant	13.3 ab	98.3 ab	95 abc	100 -
4	Zidua	0.18 lb ai/a		Dormant	13.3 ab	96.7 ab	86.7 c	100 -
5	Sharpen	0.045 lb ai/a		Dormant	16.7 a	100 a	100 a	98.3 -
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
6	Spartan	0.19 lb ai/a		Dormant	13.3 ab	95 b	96.7 ab	100 -
7	Prowl H2O	0.95 lb ai/a		Dormant	3.3 b	96.7 ab	90 bc	96.7 -
8	Zidua	0.09 lb ai/a		Dormant	76.7	96.7 ab	100 a	100 -
	Sharpen	0.045 lb ai/a		Dormant				
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
9	Zidua	0.09 lb ai/a		Dormant	3.3 b	100 a	100 a	100 -
	Sinbar	0.5 lb ai/a		Dormant				
10	Zidua	0.09 lb ai/a		Dormant	16.7 a	98.3 ab	91.7 abc	96.7 -
	Spartan	0.19 lb ai/a		Dormant				
11	Zidua	0.09 lb ai/a		Dormant	3.3 b	98.3 ab	95 abc	100 -
	Prowl H2O	0.95 lb ai/a		Dormant				
12	Spartan	0.19 lb ai/a		Dormant	10 ab	98.3 ab	93.3 abc	100 -
	Zidua	0.09 lb ai/a		3-wk POST				

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Trt No.	Treatment Name	Rate	Unit	Appl Timing	6/18/2019 % Injury	% Weed Control 6/18/2019		
						DAND	HOWE	PRLE
1	UTC - Weedy				10	100	85	100
2	Sinbar	0.5 lb ai/a		Dormant	16.7 b	100 -	100 a	98.3 -
3	Zidua	0.09 lb ai/a		Dormant	26.7 b	99.4 -	88.3 abc	100 -
4	Zidua	0.18 lb ai/a		Dormant	30 b	98.9 -	75 c	100 -
5	Sharpen	0.045 lb ai/a		Dormant	16.7 b	99.4 -	100 a	100 -
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
6	Spartan	0.19 lb ai/a		Dormant	16.7 b	97.8 -	91.7 ab	100 -
7	Prowl H2O	0.95 lb ai/a		Dormant	0 b	97.8 -	78.3 bc	95 -
8	Zidua	0.09 lb ai/a		Dormant	73.3 a	99.4 -	100 a	100 -
	Sharpen	0.045 lb ai/a		Dormant				
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
9	Zidua	0.09 lb ai/a		Dormant	33.3 b	100 -	100 a	100 -
	Sinbar	0.5 lb ai/a		Dormant				
10	Zidua	0.09 lb ai/a		Dormant	33.3 b	100 -	95 a	95 -
	Spartan	0.19 lb ai/a		Dormant				
11	Zidua	0.09 lb ai/a		Dormant	23.3 b	100 -	91.7 ab	98.3 -
	Prowl H2O	0.95 lb ai/a		Dormant				
12	Spartan	0.19 lb ai/a		Dormant	30 b	99.4 -	88.3 abc	100 -
	Zidua	0.09 lb ai/a		3-wk POST				

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Trt No.	Treatment Name	Rate	Unit	Appl Timing	7/8/2019 % Injury	Yield 8/20//2019		
						lb hay/A	ml oil/lb hay	lb oil/A
1	UTC - Weedy				3.3	22651	0.61	27.5
2	Sinbar	0.5 lb ai/a		Dormant	10	18005 b	0.59 -	20.7 b
3	Zidua	0.09 lb ai/a		Dormant	13.3 ab	26194 a	0.71 -	36.0 a
4	Zidua	0.18 lb ai/a		Dormant	11.7 ab	19457 ab	0.51 -	20.1 b
5	Sharpen	0.045 lb ai/a		Dormant	10 ab	17250 b	0.56 -	20.1 b
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
6	Spartan	0.19 lb ai/a		Dormant	10 ab	19718 ab	0.61 -	23.0 b
7	Prowl H2O	0.95 lb ai/a		Dormant	3.3 b	19892 ab	0.49 -	19.1 b
8	Zidua	0.09 lb ai/a		Dormant	20 a	22767 ab	0.47 -	21.0 b
	Sharpen	0.045 lb ai/a		Dormant				
	MSO	1 % v/v		Dormant				
	AMS	2 % v/v		Dormant				
9	Zidua	0.09 lb ai/a		Dormant	8.3 ab	23784 ab	0.49 -	23.2 b
	Sinbar	0.5 lb ai/a		Dormant				
10	Zidua	0.09 lb ai/a		Dormant	6.7 ab	20328 ab	0.56 -	21.8 b
	Spartan	0.19 lb ai/a		Dormant				
11	Zidua	0.09 lb ai/a		Dormant	5 b	21867 ab	0.57 -	23.0 b
	Prowl H2O	0.95 lb ai/a		Dormant				
12	Spartan	0.19 lb ai/a		Dormant	6.7 ab	15653 b	0.72 -	21.9 b
	Zidua	0.09 lb ai/a		3-wk POST				

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