

## Cabbage (Seeded) Crop Safety

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Location: Hanock Ag Research Station K-12 Field, Hancock WI

Plot Information:

Soil Type: Plainfield Loamy Sand, O.M. 0.5%, pH 6.0 (87% sand, 4% silt, 8% clay)

Crop: Cabbage 'Kaitlin' (Seedway seed, Maxim/Apron/Hot Water treated)

Date Planted: 5/16/19

Row Spacing: 36"

Plant Spacing: 18"

Date Harvested: N/A (trial not followed to harvest due to extreme injury)

Plot Size-Design: 6'x20'-3 reps

Rating Dates: 6/6, 6/14

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

Phytotoxicity Rating Scale: PHYGEN 0% = no injury, 100% = plant death

Phytotoxicity Rating Scale: PHYSTU 0% = no stunting, 100% = maximum stunting

Application Equipment: Backpack CO2 pressure sprayer. GPA 20, PSI 27, MPH 3.3,

Nozzle: XR8003VS, Nozzle spacing 18", Height 18"

Herbicide Application Data:

Date	5/20/19	
Time	5:00 pm	
Treatment	H.S.	
Soil Moisture		
	SF	dry
	1"	moist
	3"	moist
Soil Temp (F°)		
	SF	63.4
	3"	68.0
Air Temp (F°)		60.6
Wind (mph/dir.)		2.3 SW
%RH		28.3%
Sky Condition-% clouds		75%
Crop Stage		PRE
Weed & Size		-----

*Summary:* The intent of this trial was to investigate potential herbicides for preemergent use in direct seeded cabbage. Direct seeded cabbage has few herbicide options and would benefit greatly from a broad spectrum pre herbicide. All treatments resulted in substantial crop injury. A few ratings are unexplainable such as some (albeit minimal) observed stunting even within the handweeded check. Note that some missing data within the report is due to a lack of plants from which to rate. This study serves as a starting point from which application timing, rates, etc will be adjusted in 2020 in our effort to find potential herbicide candidates.

Weed Abbreviations:

## Cabbage (Seeded) Crop Safety - Hancock, WI - 2019

Trt No.	Treatment Name	Rate	Appl Unit	Timing	Rating 6/6/2019		
					plants/40 row ft	PHYGEN % Injury	PHYSTU % Injury
1	Handweeded Check				12.7	0	13.3
2	Command	0.67	pt/a	PREPRE	16.3 ab	20 a	6.7 e
3	Devrinol 2XT	2	qt/a	PREPRE	12 abc	0 c	23.3 cde
4	Zidua	1	oz/a	PREPRE	10 a-d	1.2 bc	46.7 bc
5	Zidua	2	oz/a	PREPRE	8.3 b-e	0 c	76.7 ab
6	Sharpen	0.75	oz/a	PREPRE	6.7 c-f	0 c	20 cde
7	Sharpen	1.5	oz/a	PREPRE	5.7 c-f	1.2 bc	20 cde
8	Ethotron	1	pt/a	PREPRE	13 abc	0 c	40 cd
9	Ethotron	2	pt/a	PREPRE	17.3 a	0 c	11.7 de
10	Ro-Neet	1	qt/a	PPI	18 a	1.2 bc	18.3 cde
11	Ro-Neet	2	qt/a	PPI	17 a	3.9 abc	23.3 cde
12	Firstrate	0.25	oz/a	PREPRE	3 def	5.4 ab	85 a
13	Firstrate	0.5	oz/a	PREPRE	1.7 ef	0 c	95 a
14	Sonalan HFP	1	pt/a	PREPRE	13.3 abc	1.2 bc	25 cde
15	Sonalan HFP	2	pt/a	PREPRE	12 abc	1.2 bc	6.7 e
16	Callisto	1.5	oz/a	PREPRE	0 f		
17	Callisto	3	oz/a	PREPRE	0 f		

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

Trt No.	Treatment Name	Rate	Appl Unit	Timing	Rating 6/14/2019		
					plants/40 row ft	PHYGEN % Injury	PHYSTU % Injury
1	Handweeded Check				11.7	6.7	6.7
2	Command	0.67	pt/a	PREPRE	14.8 ab	23.1 ab	40 bcd
3	Devrinol 2XT	2	qt/a	PREPRE	10.6 abc	13 a-d	56.7 bc
4	Zidua	1	oz/a	PREPRE	8.4 a-d	17.8 abc	73.3 ab
5	Zidua	2	oz/a	PREPRE	4.2 d	27.5 a	91.7 a
6	Sharpen	0.75	oz/a	PREPRE	6.5 bcd	5.9 cd	33.3 cd
7	Sharpen	1.5	oz/a	PREPRE	4.7 cd	12.4 a-d	46.7 bcd
8	Ethotron	1	pt/a	PREPRE	9.5 a-d	16.3 a-d	36.7 cd
9	Ethotron	2	pt/a	PREPRE	16 a	14.7 a-d	53.3 bcd
10	Ro-Neet	1	qt/a	PPI	15.8 a	7.5 cd	43.3 bcd
11	Ro-Neet	2	qt/a	PPI	10.1 a-d	10.1 bcd	50 bcd
12	Firstrate	0.25	oz/a	PREPRE	0.3 ef		
13	Firstrate	0.5	oz/a	PREPRE	1.3 e		
14	Sonalan HFP	1	pt/a	PREPRE	9.8 a-d	13 a-d	56.7 bc
15	Sonalan HFP	2	pt/a	PREPRE	10.2 a-d	4.9 d	20 d
16	Callisto	1.5	oz/a	PREPRE	0.3 ef		
17	Callisto	3	oz/a	PREPRE	0 f		

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