

New Wipers for Weed Management in Pasture and Hayfield

Rakesh S. Chandran, Ph.D.

Extension Weed Specialist and IPM Coordinator
West Virginia University

RSChandran@mail.wvu.edu

Wick Applicator

Application of a concentrated herbicide solution to weeds using a bar or similar device soaked with the herbicide solution

Works when there is a distinct height difference between the weeds and the crop

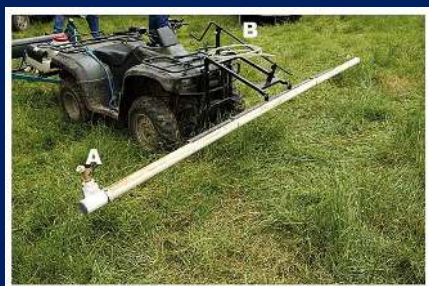
Effective with systemic herbicides

Offers some benefits but has some disadvantages

Two types of Applicators tested in West Virginia:

- 1) Weed Wiper
- 2) Rotary Weed Wiper

Weed Wiper



Rotary Weed Wiper



Weed Wiper

Pros	Cons
Simple to operate/cleanup	Inconsistent weed control
Low equipment cost	Injury from drip
Easy to transport	Not effective for slopes
Uses less herbicide per acre	Poor control of output
	Better for Liquid formulations
	Bi-directional application

Rotary Weed Wiper

Pros	Cons
More consistent weed control	Higher cost
Less injury from drip	Transportation issues
Better control of output	
Used with various formulations	
Single direction application	

Weed Wiper Studies – Ripley WV

Herbicides Applied in 2005 (July 3rd):

Grazon P+D
Redeem R&P
Remedy
Roundup Weathermax



Herbicides Applied in 2006 (July 18th):

Redeem R&P
Remedy
Roundup Weathermax
Forefront R&P

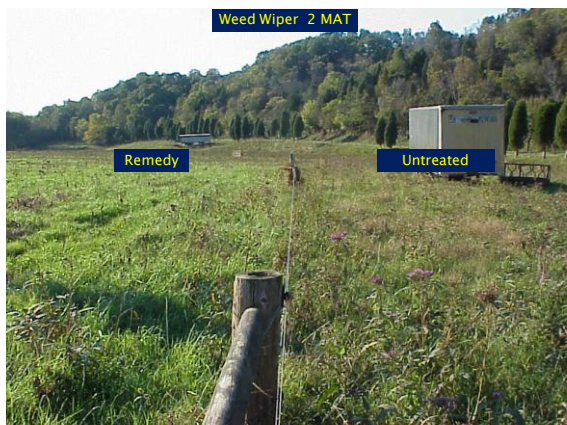
Concentration of Solution – 25%

Effect of Weed Wiper in a Hayfield 12 MAT

Herbicide	Application/s	Ironweed count	Ironweed control
Grazon P+D	Single	5.0 c	50.0 c
Redeem R& P	Single	4.3 c	56.8 bc
Remedy	Single	5.0 c	50.0 c
Roundup	Single	8.0 ab	20.0 de
Weathermax			
Grazon P+D	Double	2.7 d	73.8 a
Redeem R& P	Double	3.0 d	70.0 ab
Remedy	Double	3.0 d	70.0 ab
Roundup	Double	7.3 b	26.5 d
Weathermax			
Control	-	8.7 a	13.0 e

Effect of Weed Wiper in a Hayfield 12 MAT

Herbicide	Ironweed count	Ironweed control
Redeem R&P	10 a	46 a
Remedy	10 a	46 a
Roundup	11 ab	41 ab
Forefront R&P	12.7 b	32 b
Control	18.7 c	0 c



Rotary Weed Wiper Study - Point Pleasant WV

Herbicides Applied:

- Crossbow
- Forefront
- Grazon P+D
- Pasturegard
- Remedy
- Surmount
- Roundup 5.5



Concentration of Solution - 5%

Date of Application - July 22, 2008

Plot size - 450 by 40 feet;
Volume - 2 gal/plot
@ 2 gal/plot Herbicide Rate - 1 qt/A

Effect of Rotary Weed Wiper in a Hayfield 3 MAT

Treatment	Ironweed Control	Clover no.
Crossbow	77	5.0
Forefront	89	.
Grazon P+D	93	.
Pasturegard	80	4.8
Remedy	70	.
Surmount	89	8.0
Roundup 5.5	71	7.8
Control	0	8.0
LSD	10	5.4

Effect of Rotary Weed Wiper in a Hayfield 12 MAT

Treatment	Ironweed Control (no.)	Clover no.
Crossbow	63 (42)	8.8
Forefront	77 (22)	7.3
Grazon P+D	85 (7)	8.8
Pasturegard	85 (7)	10.0
Remedy	73 (23)	8.8
Surmount	78 (13)	8.8
Roundup 5.5	33 (45)	9.3
Control	0 (70)	10.0
LSD	11 (12)	1.6

Rotary Weed Wiper :1 MAT – Hemp Dogbane in Surmount Plot



Rotary Weed Wiper : 1 MAT – Ironweed in Surmount Plot



Rotary Weed Wiper 12 MAT : Surmount



Rotary Weed Wiper 12 MAT – Roundup Weathermax

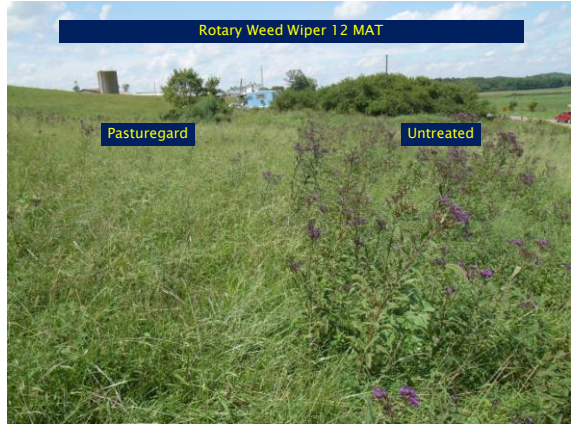


Rotary Weed Wiper 12 MAT -: Pasturegard





Rotary Weed Wiper 12 MAT : Grazon P+D



Rotary Weed Wiper 12 MAT

Pasturegard

Untreated



12 MAT - Untreated Control



Clover population in Rotary Weed Wiper Plots at 12 MAT - Pasturegard

Rotary Weed Wiper
 Grassworks Weed Wiper
www.weedproblems.com

Weed Wiper
 Speidel Weed Wiper
www.acrsales.com

