

Postemergence ZA1296 Tank-mix Partners.

00-21S-ME60

OBJECTIVE: Compare ZA1296 tank-mixes for total postemergence weed control.

SUMMARY: No corn injury was observed from ZA 1296 alone at 14 days after treatment. However, tank mixing the premix of Northstar, Buctril, or Aim with ZA 1296 resulted in 10, 13, and 15% corn injury, respectively. By 28 days after treatment corn injury was less than 5% for all treatments except ZA 1296 plus Distinct. ZA 1296 alone controlled 85 to 88% of ivyleaf morningglory and common cocklebur and 96% of velvetleaf at 28 days after treatment. Tank mixing Aatrex at 1.1 lb/A with ZA 1296 increased control of common cocklebur and ivyleaf morningglory. Giant foxtail and yellow nutsedge control was 53% or less from ZA 1296. Giant foxtail control was increased to at least 90% when Accent, Basis, or Celebrity Plus was tank mixed with ZA 1296. None of the herbicide treatments effectively controlled yellow nutsedge. The tank mixture of ZA 1296 plus Celebrity Plus provided the greatest overall weed control. Plots treated with ZA 1296 alone yielded 91 bu/A. The greatest corn yield (149 bu/A) was observed in plots treated with ZA 1296 plus Celebrity Plus.

HERBICIDES

AATREX 90 WG
 ACCENT 75 WG
 AIM 40 WG
 BASAGRAN 4 SL
 BASIS 75 WG
 BEACON 75 WG
 BUCTRIL 2 EC
 CELEBRITY PLUS 70 WG
 DISTINCT 70 WG
 HORNET 68.5 WG
 NORTHSTAR 47.4 WG
 PERMIT 75 WG
 SPIRIT 57 WG
 ZA1296 4 EC

WEEDS

COCKLEBUR, COMMON
 FOXTAIL, GIANT
 MORNINGGLORY, IVYLEAF
 NUTSEDGE, YELLOW
 VELVETLEAF

CROP

CORN, FIELD

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

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Project Code: 00-21S-ME60 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
2. CYPES	NUTSEDGE, YELLOW	CYPERUS ESCULENTUS L.
3. ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
4. IPOHE	MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.
5. XANST	COCKLEBUR, COMMON	XANTHIUM STRUMARIUM L. SSP. STRUMARIUM

Crop 1:	ZEAMX CORN, FIELD	Variety:	DK 683 SR
Planting Method:	SEEDED	Planting Date:	May-4-00
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	30 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	GLXMA, 1999	Fertilizer applied:	N 150 LB/A,	P ₂ O ₅ 50 LB/A,	K ₂ O 150 LB/A

Soil Name:	EBBERT	% OM: 2.6	pH: 5.7	CEC: 14
Texture:	SILT LOAM	P ₁ : 72 LB/A,	K: 351 LB/A	

APPLICATION DESCRIPTION

Application Date:	May-25-00
Time of Day:	18:00
Application Method:	SPRAY
Application Timing:	12"CN
Applic. Placement:	BROFOL
Air Temp., Unit:	80 F
% Relative Humidity:	18
Wind Velocity, Unit:	1-3 MPH
Soil Moisture:	NORMAL
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

Crop 1 Code, Stage:	A ZEAMX V4
Height, Unit:	11 IN

WEED STAGE AT EACH APPLICATION

Weed 1 Code:	A SETFA
Stage(leaves):	2-5
Height(inches):	3-7
Density:	HIGH
Weed 2 Code:	CYPES
Stage(leaves):	3-4
Height(inches):	3-4
Density:	LOW
Weed 3 Code:	ABUTH
Stage(leaves):	2-4
Height(inches):	3-6
Density:	MEDIUM
Weed 4 Code:	IPOHE
Stage(leaves):	COTL-3
Height(inches):	2-4
Density:	HIGH
Weed 5 Code:	XANST
Stage(leaves):	2-4
Height(inches):	3-5
Density:	HIGH

APPLICATION EQUIPMENT

Appl. Equipment:	A CO ₂ SPRAY
Operating Pressure:	40 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	8002
Boom Length, Unit:	7.33 FT
Spray Volume, Unit:	20 GPA

NOTES:

Harvested Sep-26-00, (2) 30 inch rows by 22 ft.

