SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Code:

HW 307/86

Cat No:

1563

TITLE

Digitaria scalarum control.

1. Particulars of the project:

This crop Site

Digitaria scalarum Compensation Flats

Region

N Coast Coastal

Soll system

Umzinto Coastal lowlands

Soil form/series :

esign

2 replications/treatment

Variety

Fertilizer/ Ame liorants <u>K</u>

Soil analysis

Date: 18/3/1987

Silt %

Clay % рΗ OMB 5,8 3,3 16

9

Sand % Med Coarse Fine 45 12 18

maq

K 105

:

Ca 665

Μg > 220

Zn 2,3

S 24

Irrigation

P

53

Nf7 :

November

Rainfall LTM

124.8 117,8

Weather condition at spraying:

Date of spray

: 7.11.1986

Rainfall: On day of spray (mm): 0 : No. days to 1st rain :

: No. mm at 1st rain

Sunshine hours

9.1 69

Relative humidity (%) 8 am

2 pm Temperature (°C) 8 am 2 pm

Dew

1 40,0

69

22.2

26.0

NII

ime of spray

09.00 - 10.00

Application details:

Applicator

: Gas operated knapsack

Nozzle

APM Green

Pressure

: 1.0 Bar

Outout

: 373 1 ha⁻¹

2. OBJECTIVES

To test chemicals for the long term control of Digitaria scalarum.

TREATMENTS 3.

Asulox (40)

Asulox + Actril DS (70)

3. Roundup (36)

4. Diuron (80) + Actril DS

Rate (kg or 1 product ha^{-1})

11

9 + 1,25

2.5 + 1.25

Treatments were applied directly over the <u>D. scalarum</u> foliage, the height of which was 40 cm at the time of spray. The nozzle was held at about 30 cm above the foliage. Each replicated area (8m long x 2m wide = $16m^2$) was sprayed with two passes giving an overlap of 60%. (Swath width of each pass = $1.6 \, \mathrm{m}$).

Table 1: Mean visual ratings of % scorch on D. scalarum foliage 25 and 36 days after treatment.

Treatment		% scorch	
	rrea chierre	25 DAA*	36 DAA
1.	Asulox	60	55
2.	Asulox + Actril DS	60	45
3.	Roundup	75	85
4.	Diuron + Actril DS	5	5

^{*} DAA - Days after application

CONCLUSIONS

- 1. No treatment resulted in an acceptable control of D. scalarum.
- 2. 36 days after application of treatments, regrowth of <u>D. scalarum</u> was apparent and the trial was discontinued.

FUTURE

Other products should be tested to improve control of Digitaria scalarum.

GW/MG 8 June, 1987