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South African Sugar Industry

AGRONOMISTS' ASSOCIATION

Title : Witchweed x N14 - post emergence ( OBSERVATION )

Purpose : To observe the effects of Roundup and Actril DS on S. asiatica ( witch-weed ) when applied to cane foliage.

Cat. No. 1510

Site : Field 10B - Althorpe Farm (Malelane District)

Variety : N14

Soil system : Komatipoort

Soil form : Shortlands

Date sprayed : 11 February, 1986

Plot size : 5m x 2 rows x 1,5m

Replications : 1

Treatments :

1. Control
2. Roundup @ 0,05kg a.i.ha<sup>-1</sup> onto cane only
3. Roundup @ 0,05kg a.i.ha<sup>-1</sup> onto cane and weeds
4. Actril DS @ 1,5l ha<sup>-1</sup> onto cane only
5. Actril DS @ 1,5l ha<sup>-1</sup> onto cane and weeds

Note : Withweed in plots receiving treatments 2 and 4 were covered with plastic bags while the plots were sprayed. After 15 minutes when there was no sign of the spray solution on the cane foliage, the plastic bags were removed.

Results :

<u>Treatments</u>	<u>stalk heights (cm)</u>	<u>stalk numbers</u>
	<u>29/4</u>	<u>per 5m</u>
	<u>10 weeks after spray</u>	<u>10 weeks after spray</u>
Control	126 (244 + many dead) *	120
Roundup on cane	126 (180 + many dead)	155
Roundup on cane + weeds	125 ( 95 + few dead)	189
Actril DS on cane	118 (143 + few dead)	182
Actril DS on cane + weeds	98 (119 + few dead)	189

\* witchweed numbers/plot

Comments :

The low rate of Roundup applied had no visible effect on cane leaves or on weeds. Actril DS caused severe necrosis of young leaves and there was some indication that the chemical may have been translocated to the witchweed via the cane. The height of cane at spraying was very variable however Actril DS appears to have stunted stalk elongation but had no effect on stalk numbers. It is uncertain whether Roundup had any effect on cane growth.