

'Knockdown Chemstry on Silverleaf Whitefly'

Initial Summary Results

28- 2 - 02

Trial Funded By Cotton Research & Development Corporation (CRDC)
Trial Conducted by Agrisearch Services Pty Ltd.

Treatments:

Treatment	Rate Product/hectare
1. DECIS + LORSBAN	0.7 L + 1.0 L
2. DECIS + DIMETHOATE	0.7 L + 0.5 L
3. DECIS + OVASYN	0.7 L + 2.0 L
4. DECIS + PBO	0.7 L + 0.4 L
5. DECIS + RESCUE	0.7 L + 1.5 L
6. LORSBAN	1.0 L
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL
9. DECIS + COMITE	0.7 L + 2.5 L
10. TALSTAR + OVASYN	0.8 L + 2.0 L
11. TALSTAR + PBO	0.8 L + 0.4 L
12. TALSTAR + LORSBAN	0.8 L + 1.0 L
13. MUSTANG	2.5 L
14. Untreated Control	

Trial Method Details & Comments

- Treatments applied using a hand held 2 metre wide flat boom fitted with 3 TX2 hollow cone nozzles per row and operating at 300 kPA
- A total spray volume of 83 litres per hectare was used.

- Leaves assessed were mostly around the 5th main stem leaf. At later counts, in the 2 treatments containing DROPP leaves collected were 7-8 MSL.
- At the first assessment leaves were counted for sub-adults on a random half of each leaf. At all subsequent assessments 2 x 1 dollar microscope fields (10X) were used. 10 randomly selected leaves per plot were used for leaf turn adult counts and for sub-adult microscope counts.

- Data has been analysed by 2 way ANOVAR. Means have been separated with the LSD technique and means in columns accompanied by the same letter are not significantly different at 95% level of P.

Key Points form this trial

- As would be expected, the main differences were seen between adult counts. Very little difference with nymphs and eggs.
- Mustang and Talstar treatments generally showed better results as well as Decis + Lorsban and Decis + Comite.
- There are no 'silver bullets' for this pest.

Further analysis of these results will be carried out at a later date

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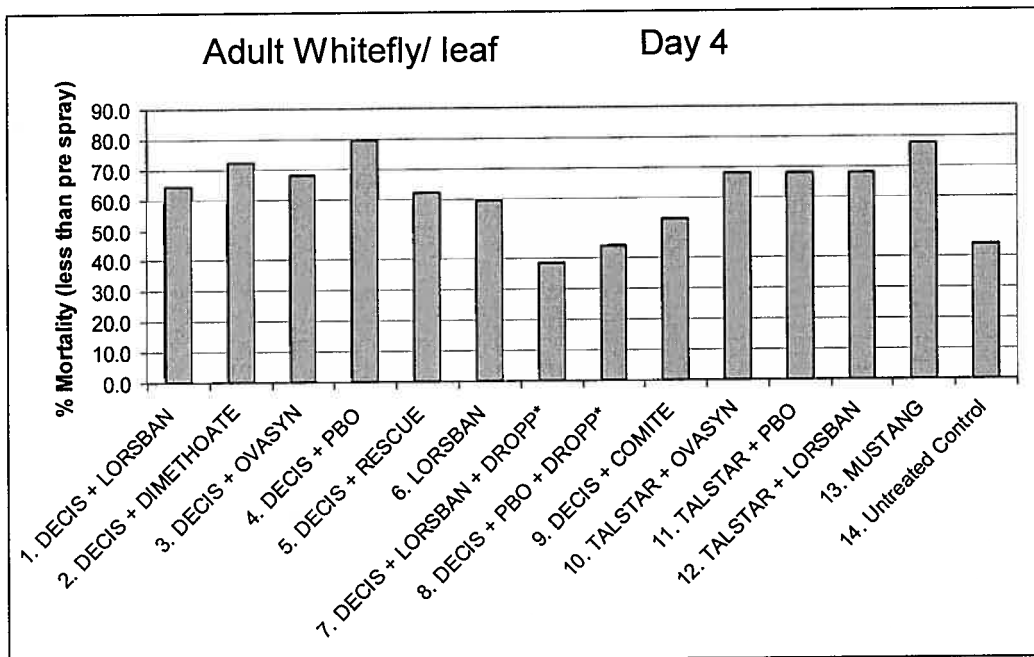
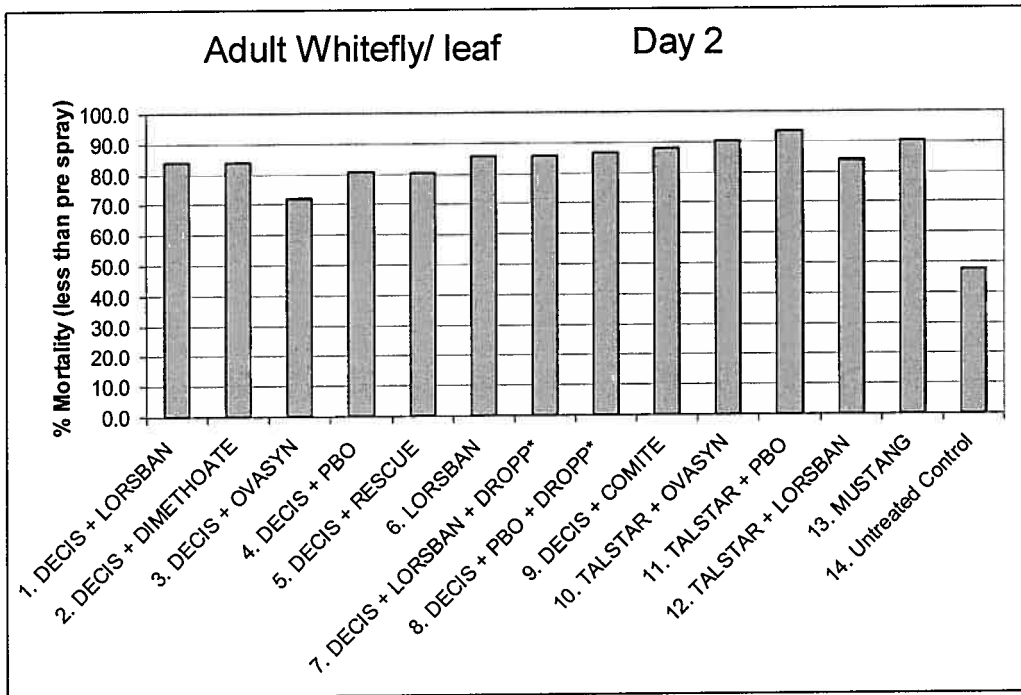
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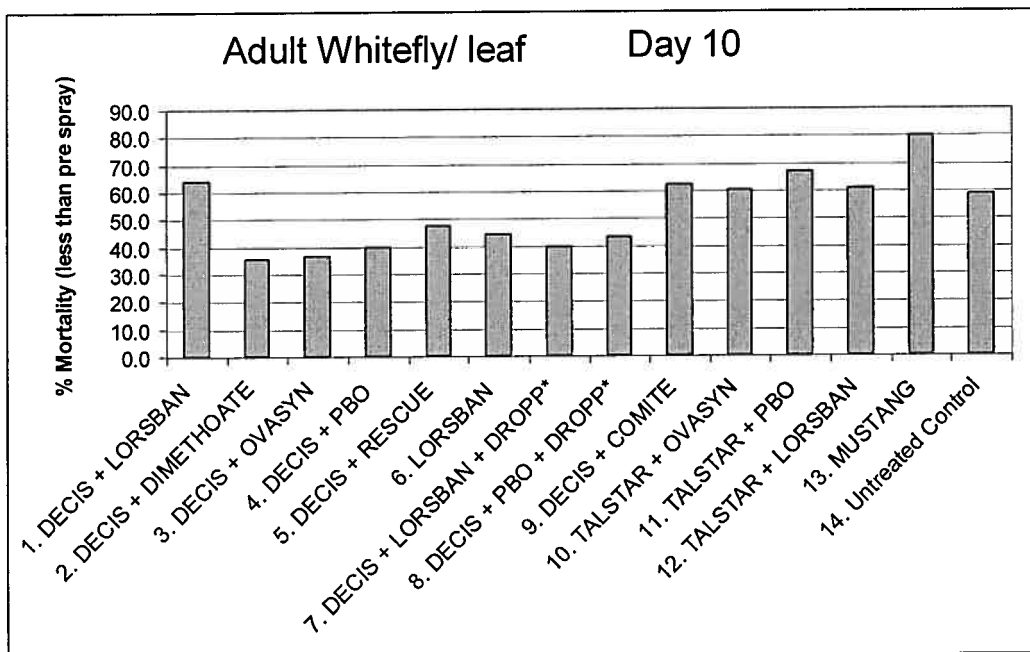
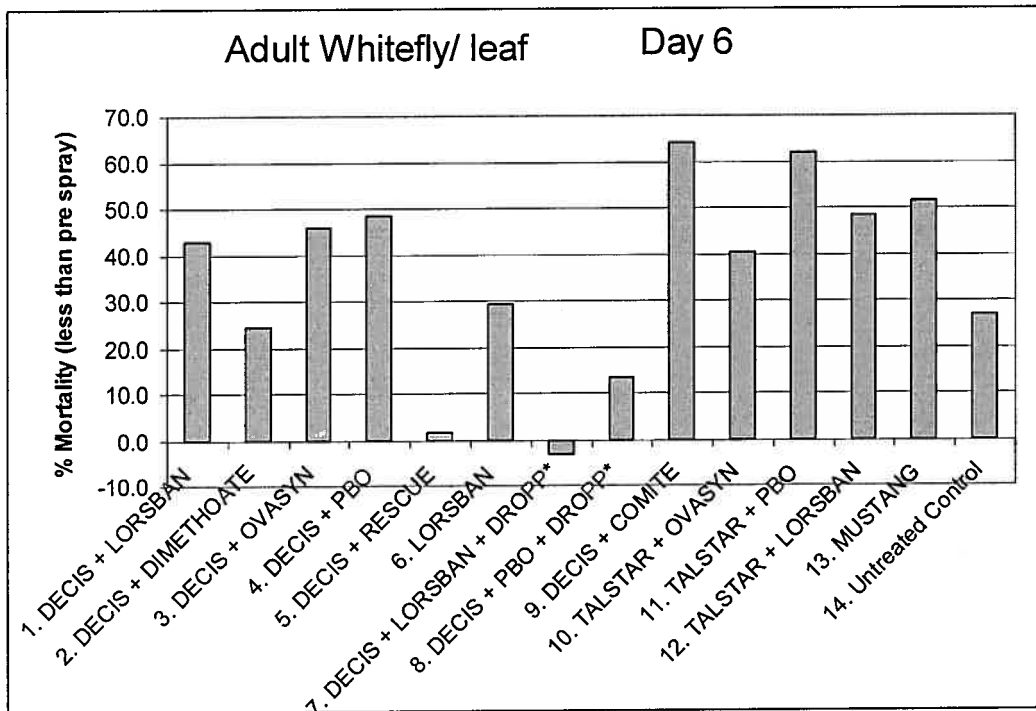
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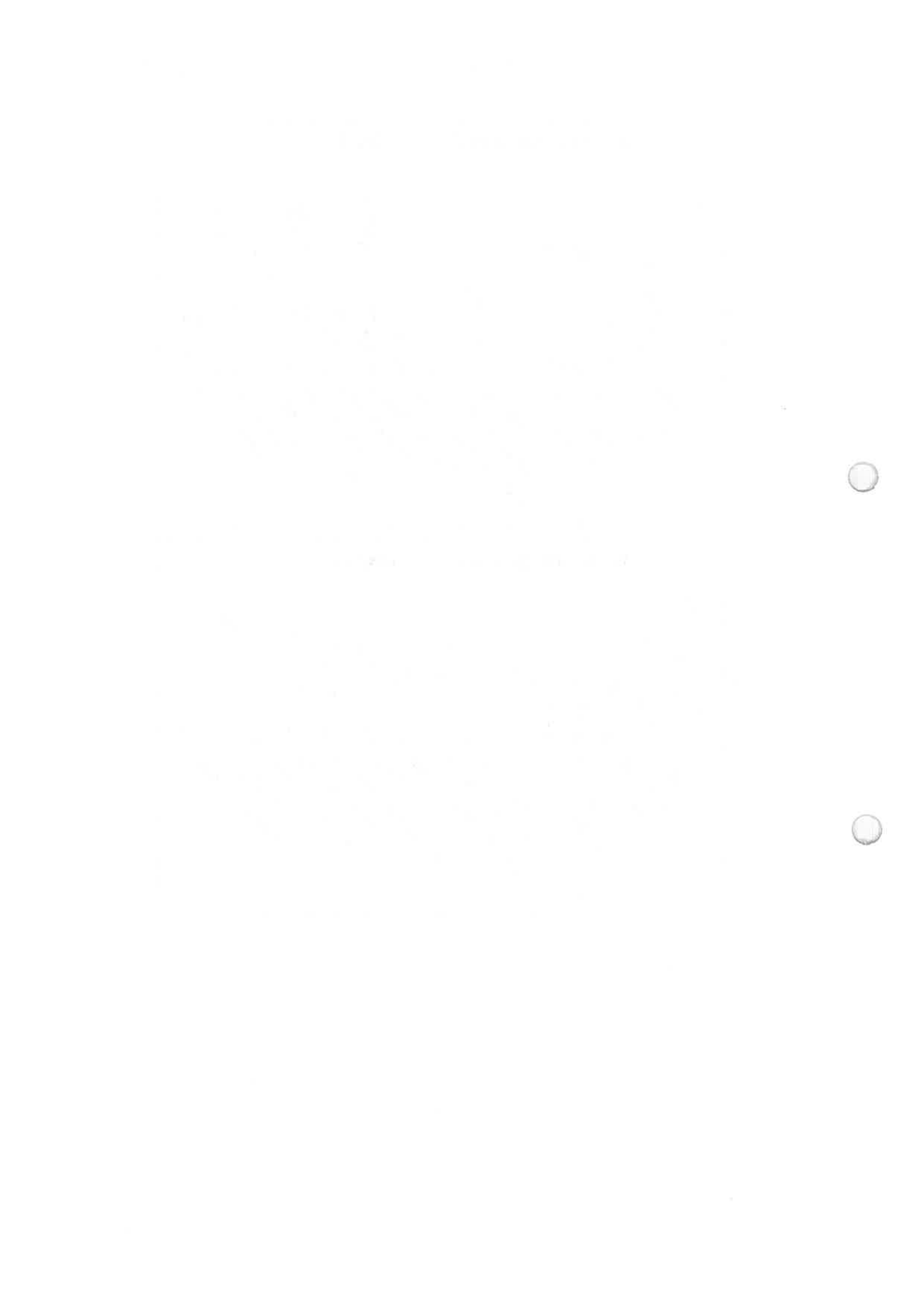
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SUMMARY TABLE 1: SLWF Adults per Leaf, CRDC (D. Duke, Emerald).

Treatment	Rate Product/hectare	SLWF Adults per Leaf				
		Day -1	Day 2	Day 4	Day 6	Day 10 ^{&}
1. DECIS + LORSBAN	0.7 L + 1.0 L	3.2 a	0.5 ab	1.1 abc	1.8 abc	1.1 abc
2. DECIS + DIMETHOATE	0.7 L + 0.5 L	3.2 a	0.5 ab	2.0 c	2.4 bcde	0.9 ab
3. DECIS + OVASYN	0.7 L + 2.0 L	3.2 a	0.9 b	2.0 c	1.7 ab	1.0 abc
4. DECIS + PBO	0.7 L + 0.4 L	2.7 a	0.6 ab	1.9 bc	1.6 ab	0.7 a
5. DECIS + RESCUE	0.7 L + 1.5 L	3.0 a	0.6 ab	1.7 bc	3.1 de	1.2 abc
6. LORSBAN	1.0 L	3.7 a	0.5 ab	1.8 bc	2.2 bcd	1.3 abc
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL	2.8 a	0.5 ab	1.9 bc	3.3 c	1.9 c
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL	2.6 a	0.4 a	1.8 bc	2.7 cde	1.8 bc
9. DECIS + COMITE	0.7 L + 2.5 L	3.5 a	0.4 a	1.2 abc	1.1 a	1.5 abc
10. TALSTAR + OVASYN	0.8 L + 2.0 L	2.3 a	0.3 a	1.3 abc	1.9 abc	1.0 abc
11. TALSTAR + PBO	0.8 L + 0.4 L	2.8 a	0.2 a	1.0 ab	1.2 a	1.0 abc
12. TALSTAR + LORSBAN	0.8 L + 1.0 L	3.6 a	0.5 ab	1.2 abc	1.6 ab	1.0 abc
13. MUSTANG	2.5 L	3.0 a	0.3 a	0.6 a	1.5 ab	0.7 a
14. Untreated Control		2.4 a	1.7 c	1.3 abc	2.3 bcde	1.8 bc
LSD 95%		1.55	0.41	0.99	0.97	0.91
FValue (sig 95% = 2.34)		0.64 ns	6.10 ⁺⁺	1.56 ns	3.76 *	1.56 ns

* plus 2.0 L/ha DCTRON Cotton Oil & defoliant applied to whole trial on day 8

+ or ++ = statistically significant; ns = not statistically significant

SUMMARY TABLE 2: % Leaves Infested with SLWF Adults, CRDC (D. Duke, Emerald).

Treatment	Rate Product/hectare	% of Leaves Infested with SLWF Adults				
		Day -1	Day 2	Day 4	Day 6	Day 10 ^{&}
1. DECIS + LORSBAN	0.7 L + 1.0 L	80.0 a	35.0 abc	50.0 a	75.0 a	50.0 ab
2. DECIS + DIMETHOATE	0.7 L + 0.5 L	75.0 a	35.0 abc	67.5 a	72.5 a	42.5 ab
3. DECIS + OVASYN	0.7 L + 2.0 L	77.5 a	52.5 cd	77.5 a	70.0 a	47.5 ab
4. DECIS + PBO	0.7 L + 0.4 L	75.0 a	42.5 bcd	67.5 a	75.0 a	37.5 a
5. DECIS + RESCUE	0.7 L + 1.5 L	97.5 a	42.5 bcd	80.0 a	85.0 a	62.5 abc
6. LORSBAN	1.0 L	82.5 a	35.0 abc	72.5 a	82.5 a	57.5 abc
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL	70.0 a	37.5 abc	77.5 a	90.0 a	67.5 bc
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL	77.5 a	30.0 abc	72.5 a	82.5 a	82.5 c
9. DECIS + COMITE	0.7 L + 2.5 L	80.0 a	30.0 abc	55.0 a	62.5 a	65.0 bc
10. TALSTAR + OVASYN	0.8 L + 2.0 L	70.0 a	20.0 ab	60.0 a	80.0 a	50.0 ab
11. TALSTAR + PBO	0.8 L + 0.4 L	72.5 a	12.5 a	52.5 a	70.0 a	47.5 ab
12. TALSTAR + LORSBAN	0.8 L + 1.0 L	85.0 a	37.5 abc	62.5 a	77.5 a	57.5 abc
13. MUSTANG	2.5 L	70.0 a	27.5 abc	52.5 a	62.5 a	50.0 ab
14. Untreated Control		80.0 a	65.0 d	62.5 a	80.0 a	77.5 c
LSD 95%		19.28	25.12	30.16	25.47	25.49
FValue (sig 95% = 2.34)		1.19 ns	2.16 ns	0.93 ns	0.82 ns	2.13 ns

* plus 2.0 L/ha DCTRON Cotton Oil & defoliant applied to whole trial on day 8

+ or ++ = statistically significant; ns = not statistically significant



SUMMARY TABLE 3: SLWF Egg Counts, CRDC (D. Duke, Emerald).

Treatment	Rate Product/hectare	SLWF Eggs per 2 x 1 Dollar Fields per Leaf				
		Day -1#	Day 2	Day 4	Day 6	Day 10 ^{&}
1. DECIS + LORSBAN	0.7 L + 1.0 L	1.3 a		1.3 ab	0.6 a	0.9 a
2. DECIS + DIMETHOATE	0.7 L + 0.5 L	1.4 a		1.8 ab	0.7 a	1.5 ab
3. DECIS + OVASYN	0.7 L + 2.0 L	1.8 a		1.4 ab	1.1 ab	1.2 ab
4. DECIS + PBO	0.7 L + 0.4 L	1.8 a		1.8 ab	1.5 abc	2.2 abc
5. DECIS + RESCUE	0.7 L + 1.5 L	2.3 a		2.3 ab	0.8 a	1.3 ab
6. LORSBAN	1.0 L	2.2 a		1.3 ab	1.3 abc	1.8 abc
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL	1.5 a		2.9 b	2.2 c	2.7 bc
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL	1.6 a		1.4 ab	2.2 c	3.3 c
9. DECIS + COMITE	0.7 L + 2.5 L	2.1 a		1.5 ab	1.3 abc	1.2 ab
10. TALSTAR + OVASYN	0.8 L + 2.0 L	2.0 a		1.3 ab	1.6 abc	1.0 a
11. TALSTAR + PBO	0.8 L + 0.4 L	1.4 a		1.8 ab	1.6 abc	1.4 ab
12. TALSTAR + LORSBAN	0.8 L + 1.0 L	2.7 a		2.4 ab	1.3 abc	1.4 ab
13. MUSTANG	2.5 L	1.3 a		1.2 a	0.6 a	0.8 a
14. Untreated Control		1.7 a		2.7 ab	2.1 bc	1.4 ab
LSD 95%		1.52		1.63	1.13	1.57
FValue (sig 95% = 2.34)		0.65 ns		1.00 ns	1.95 ns	1.63 ns

* plus 2.0 L/ha DCTRON Cotton Oil & defoliant applied to whole trial on day 8

+ or ++ = statistically significant; ns = not statistically significant

per half leaf

SUMMARY TABLE 4: SLWF Nymph Counts, CRDC (D. Duke, Emerald).

Treatment	Rate Product/hectare	SLWF Nymphs (all stages + pupae) per 2 x 1 Dollar Fields per Leaf				
		Day -1#	Day 2	Day 4	Day 6	Day 10 ^{&}
1. DECIS + LORSBAN	0.7 L + 1.0 L	3.3 a		1.5 ab	2.4 a	1.9 ab
2. DECIS + DIMETHOATE	0.7 L + 0.5 L	2.9 a		1.8 ab	3.0 a	2.7 ab
3. DECIS + OVASYN	0.7 L + 2.0 L	3.5 a		2.2 b	3.3 a	1.7 a
4. DECIS + PBO	0.7 L + 0.4 L	2.7 a		2.0 ab	2.7 a	2.5 ab
5. DECIS + RESCUE	0.7 L + 1.5 L	3.2 a		1.9 ab	3.3 a	2.8 abc
6. LORSBAN	1.0 L	3.5 a		2.1 b	2.9 a	2.5 ab
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL	3.2 a		1.8 ab	3.7 a	3.8 cd
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL	3.0 a		2.2 b	3.7 a	4.5 d
9. DECIS + COMITE	0.7 L + 2.5 L	3.1 a		1.4 ab	2.5 a	3.0 bc
10. TALSTAR + OVASYN	0.8 L + 2.0 L	3.4 a		1.1 a	4.3 a	1.7 a
11. TALSTAR + PBO	0.8 L + 0.4 L	2.9 a		2.1 b	2.2 a	2.5 ab
12. TALSTAR + LORSBAN	0.8 L + 1.0 L	3.5 a		1.4 ab	2.5 a	2.2 ab
13. MUSTANG	2.5 L	3.4 a		1.5 ab	2.3 a	2.0 ab
14. Untreated Control		3.2 a		1.8 ab	4.0 a	2.4 ab
LSD 95%		1.94		0.99	2.23	1.26
FValue (sig 95% = 2.34)		0.14 ns		1.00 ns	0.72 ns	3.21 *

* plus 2.0 L/ha DCTRON Cotton Oil

per half leaf

+ or ++ = statistically significant; ns = not statistically significant

& defoliant applied to whole trial on day 8



SUMMARY TABLE 5: SLWF Egg and Nymph Counts, CRDC (D. Duke, Emerald).

Treatment	Rate Product/hectare	Total SLWF Eggs and Nymphs in 2 x 1 Dollar Fields per Leaf				
		Day -1#	Day 2	Day 4	Day 6	Day 10 ^{&}
1. DECIS + LORSBAN	0.7 L + 1.0 L	4.5 a		2.8 ab	3.0 a	2.8 a
2. DECIS + DIMETHOATE	0.7 L + 0.5 L	4.3 a		3.6 ab	3.7 ab	4.2 ab
3. DECIS + OVASYN	0.7 L + 2.0 L	5.2 a		3.6 ab	4.3 ab	2.9 a
4. DECIS + PBO	0.7 L + 0.4 L	4.5 a		3.9 ab	4.2 ab	4.7 a
5. DECIS + RESCUE	0.7 L + 1.5 L	5.5 a		4.2 ab	4.1 ab	4.1 ab
6. LORSBAN	1.0 L	5.6 a		3.4 ab	4.2 ab	4.3 ab
7. DECIS + LORSBAN + DROPP*	0.7 L + 1.0 L + 60 mL	4.7 a		4.7 b	5.8 ab	6.4 bc
8. DECIS + PBO + DROPP*	0.7 L + 0.4 L + 60 mL	4.5 a		3.6 ab	5.9 ab	7.8 c
9. DECIS + COMITE	0.7 L + 2.5 L	5.1 a		2.9 ab	3.8 ab	4.2 ab
10. TALSTAR + OVASYN	0.8 L + 2.0 L	5.5 a		2.4 a	5.8 ab	2.7 a
11. TALSTAR + PBO	0.8 L + 0.4 L	4.3 a		4.0 ab	3.8 ab	3.9 a
12. TALSTAR + LORSBAN	0.8 L + 1.0 L	6.2 a		3.8 ab	3.8 ab	3.6 a
13. MUSTANG	2.5 L	4.7 a		2.7 ab	3.0 a	2.8 a
14. Untreated Control		4.9 a		4.5 ab	6.1 b	3.8 a
LSD 95%		3.14		2.24	2.97	2.45
FValue (sig 95% = 2.34)		0.27 ns		0.78 ns	1.07 ns	2.81 *

* plus 2.0 L/ha DCTRON Cotton Oil
& defoliant applied to whole trial on day 8

per half leaf

+ or ++ = statistically significant; ns = not statistically significant

