EVALUATION OF INSECTICIDE TREATMENTS IN COLLARDS 2003

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Collard greens were transplanted into 2 rows per 6-ft beds on 7 April in blocks 4 and 5 and maintained with standard cultural practices at the Lang Farm, Georgia Coastal Plain Experiment Station at Tifton. A total of 350 lbs of 8-8-13 was applied to Tift pebbly clay loam field plots prior to transplant and followed by two side dress applications of 150 lbs 8-8-13 during the season. Irrigation was done regularly with an overhead sprinkler system when water stress was indicated, but rainfall was also moderately high. Scouting was initiated on 11 April and continued weekly until harvest. Eight weekly applications of insecticide were made from 22 April to 11 June and 1 sample of 6 plants were scouted per plot approximately 48-72 h after weekly applications. Ten plant tops were harvested from approximately 10 ft of row on 19 June and heads were weighed and categorized as 0=not damaged, 1=slightly damage, 2=moderately damaged, 3=severely damaged. Damage ratings >1 were not marketable heads. Data was analyzed using GLM and LSD tests for separation of means (SAS Institute 1985).

There was a single evaluation of Lepidoptera pests at the harvest with a whole plant inspection. The best treatments in terms of reduced overall Lepidoptera larval numbers at the end of the season (see Table) was the S1812 plus Orthene treatment, but all treatments provided significant control of Lepidoptera larvae compared to the untreated check. Asana was the weakest treatment for diamondback moth while Spintor was the weakest on cabbage looper in this test (Table 1). The treatments with the lowest damage to wrapper leaves and the heads was the the S1812 + Asana combination and the high rate of S1812. In terms of lowest number of total diamond back moth larvae and pupae on the harvested heads, the best treatments were again the Avaunt, the S1812 combinations and both rates of S1812 treatments. The recent resistance to Spintor documented in Georgia was somewhat evident in this test, with the presence of diamondback moth in the harvest. There have certainly been better levels of control with Spintor in previous trials at this same location.

Collard harvest data on a per plant basis except % marketable and total marketable weight.

Treatment (lb ai/acre)	Cabbage looper	Imported Cabbage Worm	Diamond back moth	Total Lep. larvae	Percent marketable plants	Leaf damage[2]	Total Marketable wt (lb) per 10 ft
Avaunt WDG (0.065)	0.15 c	0.10 b	0.30 cd	0.80 cd	100 a	0.50 cd	14 a
Spintor 2SC (0.067)	1.85 a	0.00 b	0.75 cd	2.75 bc	95 a	0.40 cde	13 a
Asana XL (0.02)	0.55 bc	0.00 b	2.00 b	3.73 b	45 a	0.73 bc	8 a
Asana XL (0.02) + S-1812 4EC (0.15)	0.69 bc	0.00 b	0.08 cd	0.77 cd	65 a	0.08 e	12 a
Orthene 97SP (0.63)	0.60 bc	0.05 b	0.95 c	2.40 bc	80 a	1.05 b	10 a
Orthene 97SP (0.63) + S-1812 4EC (0.15)	0.10 c	0.05 b	0.00 d	0.15 d	100 a	0.30 de	19 a
S-1812 4EC (0.15)	0.75 bc	0.00 b	0.10 cd	0.85 cd	100 a	0.40 cde	13 a
S-1812 4EC (0.20)	0.40 bc	0.05 b	0.05 d	0.60 cd	100 a	0.15 de	15 a
Untreated Check	0.80 bc	3.05 a	3.55 a	10.35 a	15 a	2.10 a	1 a

[1] Means within columns followed by the same letter are not significantly different (LSD, $P<0.05$).

[2] Damage rating is 0=none, 1=slight (few holes, possible still marketable), 2=moderate (several holes, not marketable), 3=severe (multiple holes and severe feeding damage, not marketable).