

D**CANTALOUPE:** *Cucumis melo* L. 'Anthena'Pickleworm (PW) *Diaphania nitidalis* (Stoll)

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INSECTICIDAL CONTROL OF PICKLEWORM IN CANTALOUPE, 2003: Pickleworm is a serious pest of cucurbits in Florida and other parts of the southeast. Control is difficult because the larval period is spent feeding within the fruit. For this trial, an application of a new pesticide at 2 rates was compared to a grower standard. Greenhouse-raised seedlings were planted 4 Mar at 18-inch spacing on 2 sets of 3 beds and fertigated through Netafim™ drip tape with 12 inch emitter spacing during the growing season. The center bed in each set of 3 beds was left untreated to serve as a source of pest inoculum. The 4 treated beds were divided into plots 48 ft

long to which 3 treatments and untreated check were assigned in a completely randomized block design with 4 replications. A soil drench of Admire 2F was applied at the base of each plant in the 4 treated beds at 16 oz product per acre in 100 ml of drench applied on 10 Mar. A precount made on 7 April found 2 of 50 grapefruit sized melons checked with pickleworm. The treatments were initiated 8 Apr and sprayed weekly to 1 May. Spray was delivered through a tractor mounted horizontal boom equipped with 4 ceramic “yellow” Albuz™ hollow cone nozzles delivering 44 gpa at 200 psi. An evaluation was performed 18 Apr on 10 fully sized fruit per plot checking for larval damage. Flowers and growing tips of 10 plants were also examined on 18 Apr but no larvae were found. On 24 Apr obviously damaged fruit was removed and counted on 25 row feet per plot. On 6 May all the full sized fruit was harvested, counted and examined for insect damage. Marketable fruit was also weighed. All larvae recovered from the fruit were identified as pickleworm.

The insect pressure was very strong as evidenced by the virtual lack of any marketable melons in the untreated plots. Both rates of Avaunt were statically equally to SpinTor which will give a new insecticidal alternative to controlling this pest if it becomes registered.

Treatment/ formulation	Rate lb (AI)/acre	Marketable		Unmarketable
		no.	wt	no ^a .
Avaunt 30 WP	0.045	17.0a	60.8a	14.8b
Avaunt 30 WP	0.065	20.8a	63.0a	12.5b
SpinTor 2 SC	0.094	16.8a	53.9a	22.0ab
Untreated check		0.3b	0.8b	30.3a

Means in the same column followed by the same letter are not significantly different (LSD, $P < 0.05$).

^aIncludes unmarketable fruit picked 24 Apr