***Control of Lepidopterous Larvae in Fall Cabbage – 2005*:** Promising new chemistry and labeled insecticides were evaluated for control of the cabbage insect complex. 'Blue Thunder' field-grown cabbage transplants were planted on July 22 at Papen Farms, Inc., Dover, DE. Plots consisted of one 20-ft-long row on 3-ft centers. Each treatment was replicated four times and arranged in a RCB design. The evaluated materials are listed in the tables. Foliar materials were applied on Aug 17, 30; and Sept 12. Applications were made with a CO_2 backpack sprayer with a one-row boom, having 3 hollow-cone nozzles per row (one over the top and one drop nozzle on each side) delivering 39 gpa at 40 psi. Penetrator Plus was included in all applications at a rate of 0.5% vol./vol. The number of lepidopterous larvae on each of 5 randomly selected plants per plot was recorded on a weekly basis from Aug 12 through September 20. The numbers of marketable heads were determined by examining feeding damage on the head and two wrapper leaves on October 4. Data were analyzed using ANOVA and means were separated by Ryan's q-test (P=0.05).

DBM and CL populations were low-moderate. All treatments provided significantly better DBM control compared to the untreated check on Sept 20. All treatments provided significantly better cabbage looper control and a higher percentage of marketable heads compared to the untreated check. No phytotoxicity was observed.

Table 1 – Diamondback Moth (DBM) Counts

Treatment	Treatment Timing	Rate/A	% Marketable Heads	Mean Number DBM Larvae per 5 plants		
				Aug 19	Sept 6	Sept 20
Novaluron 0.83 EC	Aug 17,30 Sept 12	12 oz	95.83a	0.00a	0.00a	0.00b
Novaluron 0.83 EC Avaunt 30 WDG	Aug17,Sep12 Aug30	12 oz 3.5 oz	94.44a	0.00a	0.00a	0.00b
Novaluron 0.83EC Avaunt 30WG Spintor 2SC	Aug 17 Aug 30 Sep 12	12 oz 3.5 oz 4 oz	98.33a	0.00a	0.00a	0.00b
Spintor 2 SC	Aug 17,30 Sept 12	4 oz	100.00a	0.00a	0.00a	0.00b
Avaunt 30WDG	Aug 17,30 Sept 12	3.5 oz	98.53a	0.00a	0.00a	0.00b
BAS 320	Aug 17,30 Sept 12	16 oz	98.53a	0.00a	0.00a	0.00b
Assail 30SG	Aug 17,30 Sept 12	4 oz	95.67a	0.00a	0.00a	0.25b
Assail 70 WP	Aug 17,30 Sept 12	1.7 oz	96.97a	0.00a	0.00a	0.00b
Mustang 0.8EW	Aug 17,30 Sept 12	4 oz	94.74a	0.00a	0.00a	0.75b
Untreated		---	77.66b	0.00a	0.25a	3.50a

All foliar sprays were applied with Penetrator Plus at a rate of 0.5% V/V

Means within a column followed by the same letter are not significantly different (Ryan's q-test, P=0.05).

Table 2 – Cabbage Looper (CL) counts

Treatment	Treatment Date	Rate/A	Mean Number CL larvae per 5 plants			
			Aug 19	Sept 6	Sept 15	Sept 20
Novaluron 0.83 EC	Aug 17,30 Sept 12	12 oz	0.00a	0.00b	0.00b	1.00bc
Novaluron 0.83 EC Avaunt 30 WDG	Aug17,Sep12 Aug30	12 oz 3.5 oz	0.75a	0.00b	0.00b	0.75bc
Novaluron 0.83 EC Avaunt 30WG Spintor 2SC	Aug 17 Aug 30 Sep 12	12 oz 3.5 oz 4 oz	0.00a	0.00b	0.00b	0.25c
Spintor 2 SC	Aug 17,30 Sept 12	4 oz	0.00a	0.00b	0.00b	0.00c
Avaunt 30WDG	Aug 17,30 Sept 12	3.5 oz	0.25a	0.00b	0.00b	0.00c
BAS 320	Aug 17,30 Sept 12	16 oz	0.25a	0.00b	0.00b	0.25c
Assail 30SG	Aug 17,30 Sept 12	4 oz	0.00a	0.25b	0.00b	1.25bc
Assail 70 WP	Aug 17,30 Sept 12	1.7 oz	0.25a	0.25b	0.50b	1.75b
Mustang 0.8EW	Aug 17,30 Sept 12	4 oz	0.00a	0.25b	0.00b	0.50bc
Untreated	Aug 17,30 Sept 12	---	0.00a	1.50a	1.25a	5.50a

Means within a column followed by the same letter are not significantly different (Ryan's q-test, P=0.05).