

Insect Management in Melon with Chemigation - 2004: 'Gallicum' melon transplants were planted on May 25 at the University of Delaware Research and Education Center located near Georgetown, DE. Plots consisted of two 30 ft-long rows on 8 ft centers. Each treatment was replicated four times and arranged in a RCB design. Foliar treatments were applied as a broadcast spray on July 2 with a CO₂ pressurized hand-held sprayer delivering 21 gpa at 40 psi. Chemigation treatments were applied on 1-3 times depending on the treatment. Cucumber beetle, aphid and spider mite populations were evaluated on a weekly basis from June 2 through July 13. Beetle and aphid populations were assessed by looking at 5 plants per plot to determine the percent infested plants and the number of beetles and aphids per plant. On each evaluation date, 25 leaves were examined per plot to determine the number of spider mites per leaf. On July 27, all marketable fruit was collected from each plot. Data were analyzed using ANOVA and means were separated by Ryan's q-test (P=0.05).

Insect and mite populations were low. No significant differences were found between the treatments and the untreated check. No phytotoxicity was observed.

Table 1. Cucumber Beetles per 5 plants

Treatment	Rate/Acre	In-Furrow(IF) Chemigation(C) /Foliar(F) Treatment Dates	Cucumber Beetles per 5 plants					
			June 6		June 15		July 7	
			Live Beetles	Dead Beetles	Live Beetles	Dead Beetles	Live Beetles	Dead Beetles
Platinum 2SC	5 oz	May 28(C)	0.25a	0.00a	2.25a	0.50a	1.50a	0.00a
Platinum 2 SC	4 oz 4 oz	May 28 (C) June 10(C)	0.00a	0.00a	1.00a	0.50a	2.75a	0.00a
Platinum 2 SC	5oz	July 2 (C)	0.00a	0.00a	0.50a	0.50a	3.25a	0.00a
Admire 2 SC	16 oz	May 28 (C)	0.25a	0.00a	3.50a	0.75a	2.25a	0.25a
Admire 2 SC	16 oz	July 2 (C)	0.00a	0.00a	4.75a	1.50a	6.00a	0.00a
Admire 2SC	8 oz 8 oz	May 28 (C) June 10 (C)	0.25a	0.50a	2.50a	7.00a	5.00a	1.25a
VydateL	64 oz 32 oz 32 oz	May 28(C) June 10(C) June 24(C)	0.75a	0.00a	0.75a	3.25a	1.75a	0.00a
Warrior	3.84 oz	July 2(F)	0.00a	0.25a	3.75a	0.25a	0.50a	0.00a
Furadan 4F	3.8 oz/1000 ft	May 14 (IF)	0.50a	0.00a	0.50a	0.25a	2.50a	0.25a
TD 2472-01 30WSG	4 oz	July 2(F)	0.00a	0.00a	0.75a	0.00a	1.50a	0.00a
Untreated	-----	-----	0.75a	0.00a	2.25a	0.50a	1.75a	0.00a

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

Table 2. Percent Cucumber Beetle Infested Plants

Treatment	Rate/Acre	In-Furrow(IF) Chemigation(C) /Foliar(F) Treatment Dates	Total Number Melons per plot (July 27)	Percent Cucumber Beetle Infested Plants		
				June 6	June 15	July 7
Platinum 2SC	5 oz	May 28(C)	114.50a	5.00a	35.00a	25.00ab
Platinum 2 SC	4 oz 4 oz	May 28 (C) June 10(C)	120.50a	0.00a	10.00a	20.00ab
Platinum 2 SC	5oz	July 2 (C)	102.25a	0.00a	15.00a	20.00ab
Admire 2 SC	16 oz	May 28 (C)	106.50a	5.00a	40.00a	35.00ab
Admire 2 SC	16 oz	July 2 (C)	104.25a	0.00a	45.00a	65.00a
Admire 2SC	8 oz 8 oz	May 28 (C) June 10 (C)	108.00a	15.00a	55.00a	50.00ab
VydateL	64 oz 32 oz 32 oz	May 28(C) June 10(C) June 24(C)	102.25a	10.00a	30.00a	25.00ab
Warrior	3.84 oz	July 2(F)	100.00a	5.00a	30.00a	5.00b
Furadan 4F	3.8 oz/1000 ft	May 14 (IF)	123.75a	5.00a	10.00a	35.00ab
TD 2472-01 30WSG	4 oz	July 2(F)	110.75a	0.00a	10.00a	20.00ab
Untreated	-----	-----	99.25a	15.00a	40.00a	20.00ab

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