

***Insect Management in Early Planted Bt Sweet Corn - 2001:*** 'Prime Plus' (non-Bt) and 'Attribute Bt' sweet corn were planted on April 27 at the University of Delaware Research and Education Center located near Georgetown, DE. Plots consisted of two 50 ft-long plots on 30-inch centers. Each treatment was replicated 4 times and arranged in a RCB design. All treated plots received Warrior T at a rate of 3.84 oz/acre. The first application on all treatments was applied at 5 % silk. Treatments were applied with a CO<sub>2</sub> pressurized back sprayer using 4 nozzles per row delivering 36 gpa at 40 psi. At harvest on July 5 and the second harvest on July 16, 25 and 50 ears from each plot were husked and evaluated for damage as fresh market ears (no damage) and processing ears (no damage + damage only within 1.5 inches from the tip). The total number of insects of each species was also counted. Data were analyzed using ANOVA and means were separated by Ryan's q-test (P=0.05).

At the first harvest date populations were extremely low and all treatments provided better ECB control compared to the untreated non-Bt variety. At the second harvest date, all treatments provided a significantly higher percentage of fresh market and processing ears as well as a lower percentage of insect damaged ears compared to the untreated non-Bt variety. Under relatively low insect pressure, no insecticide treatments should be needed on early planted Bt sweet corn.

Table 1. First Harvest: July 5 - sampled 25 ears per plot

Variety	Number Applications Treatment Date	% Damaged Ears		
		Corn Earworm	European Corn Borer	Sap Beetle
Attribute BT	1: June 26	0.00a	0.00b	0.00a
Attribute BT	2: June 26 and 29	0.00a	0.00b	0.00a
Attribute BT	3: June 26, 29; July 3	0.00a	0.00b	0.00a
Attribute BT	4: June 26,29; July 3,6	0.00a	0.00b	0.00a
Attribute BT	5: June 26, 29; July 3,6,10	0.00a	0.00b	0.00a
Attribute BT	6: June 26,29; July 3,6,10,13	0.00a	0.00b	1.00a
Attribute BT	Untreated	0.00a	0.00b	0.00a
Prime Plus	Untreated	4.00a	3.00a	2.00a
Prime Plus	6: June 26,29; July 3,6,10,13	0.00a	2.00ab	0.00a

Table II. Second Harvest: July 16 - sampled 50 ears per plot

Variety	% Fresh Market Ears	% Procc. Ears	% Damaged Ears	
			Corn Earworm	Sap Beetle
Attribute BT	91.00a	95.00a	0.00b	9.00b
Attribute BT	91.00a	97.00a	0.00b	9.00b
Attribute BT	99.00a	99.50a	0.00b	1.00b
Attribute BT	95.00a	97.00a	0.00b	5.00b
Attribute BT	98.00a	98.50a	0.00b	2.00b
Attribute BT	95.00a	98.50a	0.00b	5.00b
Attribute BT	82.50a	93.00a	0.50b	17.00b
Prime Plus	37.00b	70.50b	3.00a	57.00a
Prime Plus	90.00a	95.50a	0.00b	10.00b

