



Corn Earworm Survey—2013

D. Ames Herbert, Jr.
Extension Entomologist
Virginia Tech Tidewater AREC

Annually, we conduct a survey to estimate *Helicoverpa zea* (corn earworm) infestation levels in field corn in mid- to late July. Corn is considered a nursery crop for earworm, allowing the pest to complete a lifecycle and then move on to other crops such as soybean, cotton, and peanut in August. Over 30 years of data show that there is a linear correlation between the infestation level in corn and the amount of soybean acreage that gets treated with insecticide for this pest.

To conduct the survey this year, the number of corn earworms found in 50 ears of corn was recorded in 5 corn fields in each of 27 counties, totaling 6,750 ears and 135 fields sampled. When fields were known to contain Bt or non-Bt corn, this was noted. Otherwise, samples were considered to be random and assumed to be representative of the actual Bt/non-Bt composition in each county. Age of earworms, or if they had already exited the ears, was also recorded (data not shown). We greatly appreciate the help of Virginia Cooperative Extension Agriculture and Natural Resource (ANR) Agents, Virginia Tech faculty and staff, and volunteers in this effort. These cooperators are acknowledged below. We also would like to thank the many growers who graciously allowed us to inspect their fields for earworm.

Results of the survey are provided in the attached table. Statewide, approximately 18% of ears were infested with earworms. For comparison, 30% of ears were infested in 2012, 33% of ears were infested in 2011; 40% in 2010; and 36% in 2009. Regional averages for 2013 were 9.2% infested ears in the Northern Neck, 15.1% in Mid-Eastern, 15.7% in South-Central, and 23.4% in the Southeast.

This survey is intended to be a representative sample, not a complete picture. We always recommend scouting individual fields to determine exactly what is happening in terms of corn earworm as well as other pests and crop problems. Also, please check the black light trap data on the [Virginia Ag Pest Advisory](#) and other reports posted weekly to keep up-to-date on the insect pest situation.

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Table 1. Corn earworm survey of field corn in Virginia, 2013.

County	# Fields	# Ears Sampled	% Ears Infested	Field type(s)
Mid-Eastern				
Charles City	5	250	18.8	5 random samples
Essex	5	250	6.0	5 random samples
Gloucester	5	250	17.6	5 random samples
Hanover	5	250	19.2	4 Bt, 1 non-Bt
Henrico	5	250	30.8	5 random samples
James City	5	250	19.6	5 random samples
King and Queen	5	250	5.2	5 random samples
King William	5	250	8.8	5 random samples
Mathews	5	250	13.6	5 random samples
Middlesex	5	250	12.0	5 random samples
New Kent	5	250	14.0	5 random samples
<i>Regional avg. %</i>			<i>15.1</i>	
Southeast				
Chesapeake	5	250	11.6	4 Bt, 1 non-Bt
Dinwiddie	5	250	31.2	2 Bt, 3 non-Bt
Greensville	5	250	31.2	5 random samples
Isle of Wight	5	250	38.0	5 Bt
Prince George	5	250	36.8	1 non-Bt, 4 random samples
Southampton	5	250	14.0	5 Bt
Suffolk	5	250	36.4	5 random samples
Surry	5	250	14.8	4 Bt, 1 random sample
Sussex	5	250	14.0	5 Bt
Virginia Beach	5	250	6.4	4 Bt, 1 non-Bt
<i>Regional avg. %</i>			<i>23.4</i>	
South-Central				
Amelia	5	250	9.6	3 Bt, 2 non-Bt
Goochland	5	250	8.8	4 Bt, 1 non-Bt
Nottoway	5	250	29.2	3 Bt, 2 non-Bt
Powhatan	5	250	15.2	5 Bt
<i>Regional avg. %</i>			<i>15.7</i>	
Northern Neck				
Richmond	5	250	10.0	5 random samples
Westmoreland	5	250	8.4	5 random samples
<i>Regional avg. %</i>			<i>9.2</i>	
State average			17.8%	