

Table 27. Cotton insect loss estimates for Virginia during 2020.

Pest	Acres Infested	% Acres Infested	Acres Treated	% Acres Treated	# of apps /acres treated	Cost of 1 application	% loss /acre infested	# of apps/ total acres	cost/acre	overall % reduction	Bales lost / pest	Loss + cost	Loss + cost/acre	% Total Loss+Cost
Bollworm/Budworm	27,475	35%	31,400	40.0%	1.0	\$18.00	3.00%	0.40	\$7.20	1.05%	2,926	\$1,180,956	\$15.04	8.2%
Beet Armyworm	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	78,500	100%	58,875	75.0%	2.0	\$10.00	5.00%	1.50	\$15.00	5.00%	13,934	\$5,859,324	\$74.64	40.8%
Cotton Fleahopper	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	62,800	80%	7,850	10.0%	1.0	\$10.00	3.00%	0.10	\$1.00	2.40%	6,688	\$2,309,968	\$29.43	16.1%
Brown Stink Bug	62,800	80%	7,850	10.0%	1.0	\$10.00	3.00%	0.10	\$1.00	2.40%	6,688	\$2,309,968	\$29.43	16.1%
Clouded Plant Bug	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	15,700	20%	3,925	5.0%	1.0	\$15.00	5.00%	0.05	\$0.75	1.00%	2,787	\$948,207	\$12.08	6.6%
Thrips	78,500	100%	78,500	100.0%	1.0	\$8.00	1.00%	1.00	\$8.00	1.00%	2,787	\$1,564,432	\$19.93	10.9%
Aphids	15,700	20%	3,925	5.0%	1.0	\$10.00	1.00%	0.05	\$0.50	0.20%	557	\$195,002	\$2.48	1.4%
Grasshoppers	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL					3.20			\$33.45		13.05%	36,367	\$14,367,857	\$183.03	

SUMMARY DATA

	Data Input		Yield and Management Results				Economic Results	
	Virginia	Region	Total Acres	Total Bales Harvested	Foliar Insecticide Costs	Total	Per Acre	
State	Virginia	Southeast	78,500	130,833	\$2,625,825	\$33.45		
Region								
Year	2020				\$942,000	\$12.00		
Total Acres (Upland)	78,500	In-furrow cost/treated acre	\$6.00	Percent Yield Loss	\$141,300	\$1.80		
Yield / Acre (Upland)	800	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	\$235,500	\$3.00		
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$1.00	Av. # Applications	\$78,500	\$1.00		
yield potential (lb/acre)	1,704	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	\$1,354,125	\$17.25		
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	\$5,377,250	\$68.50		
Yield / Acre (Pima)	0	% Insect apps by air	5%	Transgenic Cotton (arthropods) (# acres)	\$12,219,312	\$155.66		
% Acres Scouted	25%	No. apps by air	1	Boll Weevil Eradication (# acres)	\$17,596,562	\$224.16		
Fee / Scouted Acre	\$12.00	Cost/app by air	\$15.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	95%	# Scouted Acres	19,625			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	78,500			
Cost/treated acre (Bt) Cotton	\$17.25	Cost/app by ground	\$7.50	In-Furrow Applications (# acres)	23,550			
% acres with seed treatment	100%	% Loss to weather	40.0%	Applications by Air (acres)	3,925			
Seed trt. cost/ treated acre	\$12.00	% loss to non-arthropods	0.0%	Applications by Ground (acres)	74,575			
% acres with in-furrow	30%	% loss to other (chemical injury, weeds, diseases, etc.)	0.0%	No. acres with no foliar insecticide applications	0			

Table 27. Cotton insect loss estimates for Virginia during 2020, continued.

Upland Cotton	% Acres	# Acres	Total cost/acre	Bt cost/acre	% acres treated for BW/TBW	# acres treated for BW/TBW	# apps for BW/TBW
Bollgard II	50.0%	39,250	\$130.00	\$15.00	75%	29,438	1.0
Bollgard III	10.0%	7,850	\$130.00	\$20.00	5%	393	1.0
WideStrike	5.0%	3,925	\$130.00	\$15.00	75%	2,944	1.0
WideStrike 3	15.0%	11,775	\$130.00	\$20.00	5%	589	1.0
TwinLink	0.0%	0	\$130.00	\$15.00	75%	0	0.0
TwinLink Plus	20.0%	15,700	\$130.00	\$20.00	5%	785	1.0
Total Bt	100.0%	78,500	\$130.00	\$17.25	43.5%	34,148	0.4
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	78,500	\$130.00	\$17.25	43.5%	34,148	0.4
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0.0
Other	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		78,500	\$130.00	-	43.5%	34,148	0.4