

Table 20. Cotton insect loss estimates for South Carolina 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 | 190,000 | 100% | 95,000 | 50.0% | 1.0 | \$15.00 | 1.25% | 0.50 | \$7.50 | 1.25% | 6,314 | \$3,667,733 | \$19.30 | 22.4% |
| 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 | 1,900 | 1% | 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 | 47,500 | 25% | 1,900 | 1.0% | 1.0 | \$8.00 | 0.01% | 0.01 | \$0.08 | 0.00% | 15 | \$9,128 | \$0.05 | 0.1% |
| 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 | 190,000 | 100% | 19,000 | 10.0% | 1.0 | \$10.00 | 0.10% | 0.10 | \$1.00 | 0.10% | 505 | \$369,376 | \$1.94 | 2.3% |
| Cotton Fleahopper | 142,500 | 75% | 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) | 190,000 | 100% | 171,000 | 90.0% | 2.0 | \$10.00 | 2.25% | 1.80 | \$18.00 | 2.25% | 11,364 | \$7,456,493 | \$39.24 | 45.5% |
| Brown Stink Bug | 190,000 | 100% | 95,000 | 50.0% | 1.0 | \$10.00 | 0.25% | 0.50 | \$5.00 | 0.25% | 1,263 | \$1,398,618 | \$7.36 | 8.5% |
| Clouded Plant Bug | 19,000 | 10% | 0 | 0.0% | 0.0 | \$0.00 | 0.00% | 0.00 | \$0.00 | 0.00% | 0 | \$0 | \$0.00 | 0.0% |
| Leaf Footed Bugs | 142,500 | 75% | 0 | 0.0% | 0.0 | \$0.00 | 0.00% | 0.00 | \$0.00 | 0.00% | 0 | \$0 | \$0.00 | 0.0% |
| Spider Mites | 190,000 | 100% | 9,500 | 5.0% | 1.0 | \$15.00 | 0.10% | 0.05 | \$0.75 | 0.10% | 505 | \$321,876 | \$1.69 | 2.0% |
| Thrips | 190,000 | 100% | 142,500 | 75.0% | 1.0 | \$8.00 | 1.00% | 0.75 | \$6.00 | 1.00% | 5,051 | \$2,934,115 | \$15.44 | 17.9% |
| Aphids | 190,000 | 100% | 19,000 | 10.0% | 1.0 | \$10.00 | 0.00% | 0.10 | \$1.00 | 0.00% | 0 | \$190,000 | \$1.00 | 1.2% |
| Grasshoppers | 190,000 | 100% | 1,900 | 1.0% | 1.0 | \$10.00 | 0.01% | 0.01 | \$0.10 | 0.01% | 51 | \$37,115 | \$0.20 | 0.2% |
| Banded Winged Whitefly | 95,000 | 50% | 0 | 0.0% | 0.0 | \$0.00 | 0.00% | 0.00 | \$0.00 | 0.00% | 0 | \$0 | \$0.00 | 0.0% |
| Silverleaf Whitefly | 95,000 | 50% | 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 | | | | | 3.82 | \$39.43 | | | 4.96% | | 25,068 | \$16,384,454 | \$86.23 | |

SUMMARY DATA

| Data Input | | Yield and Management Results | | | Economic Results | | | |
|--------------------------------|----------------|---|---------|-----------------------|------------------|--------------------------|-------|----------|
| State | South Carolina | Total Acres | 190,000 | Total Bales Harvested | 323,396 | Foliar Insecticide Costs | Total | Per Acre |
| Region | Southeast | Total Bales Lost to Insects | 25,068 | Seed Treatment Costs | \$2,223,000 | \$11.70 | | |
| Year | 2020 | Percent Yield Loss | 5.0% | In-Furrow Costs | \$342,000 | \$1.80 | | |
| Total Acres (Upland) | 190,000 | Yield w/o Insects (lb/acre) | 860 | Scouting Costs | \$665,000 | \$3.50 | | |
| Yield / Acre (Upland) | 817 | Av. # Applications | 3.82 | Eradication Costs | \$237,500 | \$1.25 | | |
| Price / lb | \$0.74 | Total Bales lost (all factors) | 181,643 | Bt Cotton | \$5,468,200 | \$28.78 | | |
| yield potential (lb/acre) | 1,276 | Total % yield Loss | 36.0% | Total Costs | \$16,427,400 | \$86.46 | | |
| Acres (Pima) | 0 | Transgenic Cotton (arthropods) (# acres) | 189,905 | Yield Loss to Insects | \$8,904,154 | \$46.86 | | |
| Yield / Acre (Pima) | 0 | Boll Weevil Eradication (# acres) | 190,000 | Total Losses + Costs | \$25,331,554 | \$133.32 | | |
| % Acres Scouted | 50% | Pink Bollworm Eradication (# acres) | 0 | | | | | |
| Fee / Scouted Acre | \$7.00 | # Scouted Acres | 95,000 | | | | | |
| No. times scouted/week | 1 | Seed Treatments (arthropods) (# acres) | 171,000 | | | | | |
| % acres Transgenic (Bt) Cotton | 100% | In-Furrow Applications (# acres) | 19,000 | | | | | |
| Cost/treated acre (Bt) Cotton | \$28.79 | Applications by Air (acres) | 9,500 | | | | | |
| % acres with seed treatment | 90% | Applications by Ground (acres) | 180,500 | | | | | |
| Seed trt. cost/ treated acre | \$13.00 | No. acres with no foliar insecticide applications | 190 | | | | | |
| % acres with in-furrow | 10% | | | | | | | |

Table 20. Cotton insect loss estimates for South Carolina 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 | 53.8% | 102,220 | \$108.00 | \$30.00 | 50% | 51,110 | 1.0 |
| Bollgard III | 39.6% | 75,240 | \$106.00 | \$30.00 | 5% | 3,762 | 1.0 |
| WideStrike | 0.0% | 0 | \$92.00 | \$10.00 | 100% | 0 | 1.0 |
| WideStrike 3 | 6.0% | 11,419 | \$105.00 | \$10.00 | 10% | 1,142 | 1.0 |
| TwinLink | 0.1% | 114 | \$99.00 | \$25.00 | 50% | 57 | 1.0 |
| TwinLink Plus | 0.5% | 912 | \$102.00 | \$30.00 | 5% | 46 | 1.0 |
| Total Bt | 100.0% | 189,905 | \$106.99 | \$28.79 | 29.5% | 56,117 | 0.3 |
| 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% | 189,905 | \$106.99 | \$28.79 | 29.5% | 56,117 | 0.3 |
| 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) | | 189,905 | \$106.99 | - | 29.5% | 56,117 | 0.3 |