Weather events such as hurricanes, tropical storms, and severe rainfall are common to the Southeastern U.S. These events have the potential to cause severe economic damage to the region’s vegetable industry. On Oct. 10-11, Hurricane Michael made landfall on the panhandle of Florida as a Category 4 hurricane and moved northeast through southwest Georgia, causing significant damage to large portions of the vegetable industry in Georgia.
Vegetables can be severely affected by strong winds, heavy rainfall, and flooding events. Direct damage to crops may be caused by strong winds resulting in lodging and defoliation of plants, or heavy rainfall, which may cause flooding or severe runoff and soil erosion. Secondary effects include the loss of marketable fruit due to a lack of foliage. Without shade from foliage, the fruit of the plant is susceptible to sunburn damage as well as disease resulting from injury.

In Georgia, Hurricane Michael had sustained winds of more than 80 mph, with gusts between 100-110 mph, which directly affected vegetable fields in the state (Figures 1-6). Crop damage after the initial storm will continue, mostly due to the sunburn of exposed fruit and disease caused by damage (Figure 7). Losses due to secondary rot and sunburn in some crops will likely result in higher losses. Growers are trying to minimize sunburn by using shading materials, and while these materials can mitigate short-term losses due to sunburn, their usefulness is often limited to a few days.

Hurricane Michael also caused damage to packing sheds, greenhouses, and other farm facilities in the state. Power outages prevented growers from using coolers, grading lines, and electric irrigation pumps, further compounding losses.

Georgia’s vegetable industry was valued at $1.14 billion in 2016. Approximately 35-40% of Georgia’s vegetable income is connected to the fall growing season. In cases such as sweet corn, losses exceeded 90%, but losses for partially harvested fall crops were lower (20-30%). The most affected vegetable crops were sweet corn, peppers (bell and specialty), eggplants, cucumber, squash, tomatoes, snap beans, and early-planted cabbage and greens. Estimated losses from Hurricane Michael are $480,314,376 for vegetables in Georgia, although this estimate does not include infrastructural damages. These numbers are based on preliminary estimates formulated between October 12-16, 2018, and are subject to change given new information.