

Agricultural Losses and Damages from *Hurricane Debby*

The purpose of this research study is to rapidly estimate the agricultural impacts resulting from Hurricane Debby in the state of Florida. Survey results have been combined with a detailed baseline database on agricultural assets in Florida to estimate and communicate agricultural losses and damages in support of informed local, state, and federal decision-making processes related to disaster declaration, response, and relief.

Event Description

The tropical system that would become Hurricane Debby became a tropical depression on August 3, 2024 off of the coast of Cuba, moving into the Gulf of Mexico and strengthening into a tropical storm later that same day. It gradually intensified, attaining Category 1 strength on August 4th prior to making landfall near Steinhatchee, FL (Taylor County) on August 5th. Hurricane Debby then moved northeast, impacting the southwestern peninsula and north central Florida before crossing into southeast Georgia.

Impacted Agricultural Acreage

Over 2.2 million acres of agricultural lands were affected, of which over 68% was grazing land. Across all commodity groups, around 41.6% of impacted acreage experienced low-intensity weather conditions (Hurricane Composite Intensity Index [HCII] levels 1-3), 56.3% of impacted acreage experienced moderate-intensity weather conditions (HCII levels 4-9), and only 2.1% of impacted acreage experienced high-intensity weather conditions (HCII levels 10-15). The commodity groups that were most affected (in terms of overall acreage impacted) by Hurricane Debby (not including grazing land) were Field and Row Crops (380,000+ acres), Citrus (90,000+ acres), and Vegetables, Melons, and Potatoes (75,000+ acres). There are currently no reports of significant or widespread losses for citrus crops due to Hurricane Debby. And many crops within the Vegetables, Melons, and Potatoes commodity group were out of season or not yet planted.

Production Losses

Preliminary estimated production losses for agricultural producers in Florida are over \$93 million. The commodity groups that were most affected in terms of production losses are Animals and Animal Products (\$41.1-98.5 million), Field and Row Crops (\$ 19.3-53.1 million), and Greenhouse/Nursery (\$15.0-53.6 million).

Infrastructure and Production Damages

Reported damages to infrastructure include homes, livestock sheds, barns, perennial plantings, conservation structures, fences, farm equipment, and aquaculture equipment (e.g., lost gear and bags). Survey respondents also reported damages to or destruction of stored agricultural inputs including fertilizer and seeds as well as stored harvested products including oysters, clams, hay, haylage, and silage.

Note: These estimates are preliminary and do not include repair or replacement costs associated with damages to agricultural infrastructure, stored agricultural inputs, stored harvested products, timber production losses, or losses for commercial fisheries.

