

September 2023

PRELIMINARY ESTIMATES OF DAMAGE TO FLORIDA AGRICULTURE FROM HURRICANE IDALIA



**Florida Department of Agriculture
and Consumer Services**

Commissioner Wilton Simpson

FDACS.gov

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DIRECTIVE AND GUIDELINES

Hurricane Idalia made landfall on August 30, 2023, near Keaton Beach along the Big Bend area of Florida as a category 3 hurricane. Besides causing major devastation to Florida's coastal communities, Idalia was large and powerful enough to bring hurricane and tropical storm conditions to the majority of Florida counties. Hurricane Idalia's path coincided with some of Florida's most productive agricultural landscapes for beef cattle, dairy cattle, poultry, aquaculture, horticulture, field corn, cotton, peanuts and pecans.

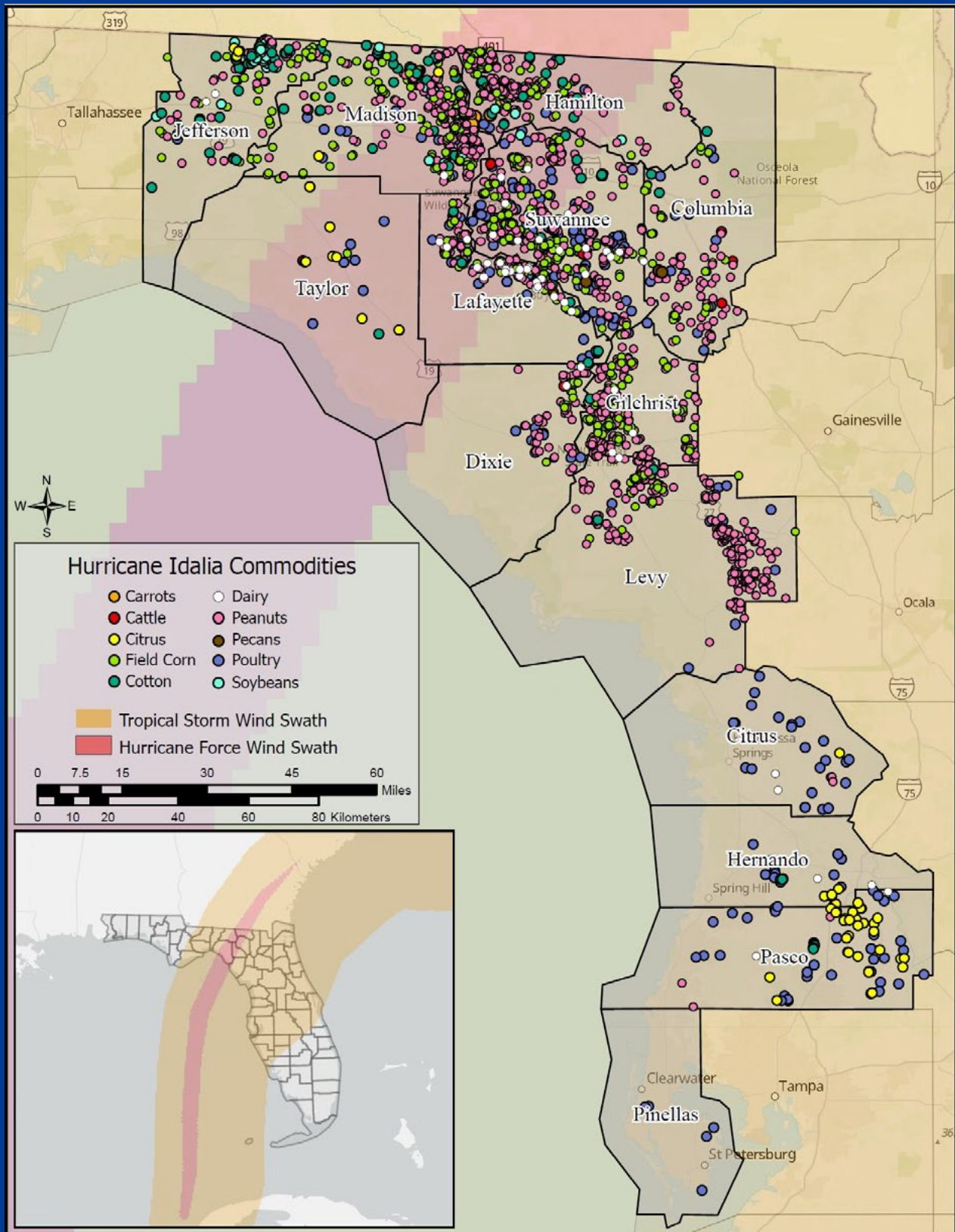
In the wake of this historic storm, the Florida Department of Agriculture and Consumer Services (FDACS) was informed by several industry leaders across the state describing the overwhelming impacts this storm had on not only their current year crop losses, but the further devastation of damaged infrastructure: destroyed fences, shade structures, row crops; uprooted or cracked trees and bushes and damages to cattle and poultry industry. The following 16 counties in Florida were declared disasters by FEMA: Citrus, Columbia, Dixie, Gilchrist, Hamilton, Hernando, Jefferson, Lafayette, Levy, Madison, Manatee, Pasco, Pinellas, Sarasota, Suwannee, and Taylor.

This document provides an early summary of the estimated losses to Florida's diverse agricultural sectors, accounting for the loss in current year crop production in citrus, fruit and tree nuts, vegetables and melons, field and row crops, horticultural crops, animals/ animal products, and forestry, as well as the associated losses to direct and related infrastructure.

These estimates are based on data obtained from the UF-IFAS Preliminary Assessment of Hurricane Idalia, USDA National Agricultural Statistics Service, the Florida Census of Agriculture, USDA My Market News, Timber Damage Estimates prepared by the Florida Forest Service, and the early communication conducted by FDACS with industry leaders and individual producers.

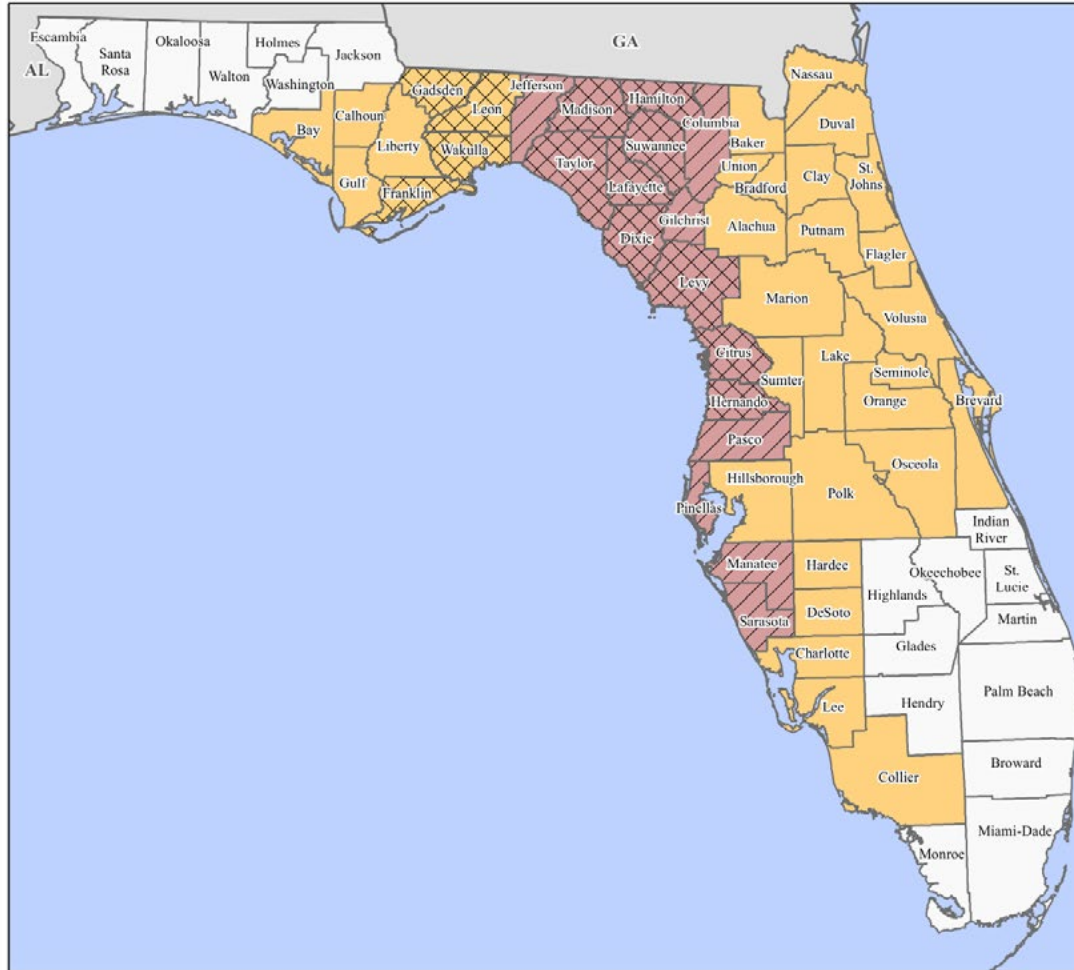
The purpose of this document is to inform policymakers on the preliminary extent of the damage and losses experienced and expected by agricultural producers in Florida in the wake of Hurricane Idalia. The estimates are based on the best available information, including satellite imagery, published agricultural statistics, and early surveys with agricultural producers who are currently engaged in large-scale recovery efforts. These estimates will be updated as additional information is gathered and becomes available. Most importantly, this is not a funding request to the State or Federal governments; rather it is meant to inform policymakers.

HURRICANE IDALIA IMPACT MAP



FEMA DISASTER DECLARATION MAP

FEMA-4734-DR, Florida Disaster Declaration as of 09/11/2023

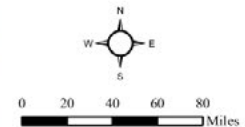


Data Layer/Map Description:
The types of assistance that have been designated for selected areas in the State of Florida.

All areas in the State of Florida are eligible to apply for assistance under the Hazard Mitigation Grant Program.

Designated Counties

- No Designation
- Public Assistance (Category B)
- Public Assistance (Categories A - G)
- Individual Assistance and Public Assistance (Categories A and B)
- Individual Assistance and Public Assistance (Categories A - G)



Data Sources:
FEMA, ESRI;
Initial Declaration: 08/31/2023
Disaster Federal Registry Notice:
Amendment #6: 09/11/2023
Datum: North American 1983
Projection: Lambert Conformal Conic

MapID 056e449dcd10911232059twhqprod

https://gis.fema.gov/maps/dec_4734.pdf

EXECUTIVE SUMMARY

Total crop and infrastructure losses are estimated up to \$447.9 million.

Altogether 16 counties were listed by FEMA as disaster areas: Citrus, Columbia, Dixie, Gilchrist, Hamilton, Hernando, Jefferson, Lafayette, Levy, Madison, Manatee, Pasco, Pinellas, Sarasota, Suwannee, and Taylor.

Citrus: no damages reported by industry members.

Field Crops: losses are estimated up to \$93.6 million in field crops damages³.

Fruits (Non-Citrus) and Tree Nuts: losses are estimated up to \$2.6 million in fruits and tree nuts damages³.

Greenhouse/Nursery: losses are estimated up to \$68.8 million in greenhouse/nursery damages³.

Animals and Animal Products (includes Cattle, Poultry, Aquaculture and Dairy): losses are estimated up to \$157.6 million in animals and animal products damages, which includes losses to infrastructure and machinery/equipment.

Vegetables and Melons: losses are estimated up to \$60.6 million in vegetables and melons damages³.

Forestry: losses are estimated at \$64.7 million in timber damages.

Field Crops: Up to \$93.6 million

Florida is a major producer of field crops, with more than \$286 million in cash receipts in 2021¹. Major products include field corn, cotton and peanuts among many others¹.

An estimated 444,300 acres of field crops for the state of Florida were affected by tropical storm or hurricane force winds with 84,800 acres experiencing category 3 hurricane force winds, 4,800 acres experiencing category 2 hurricane force winds, and 354,700 acres experiencing tropical storm force winds³.

According to the University of Florida, the estimated value of production on the affected acreages for field crops is valued at \$313,600,000 with a range of damages estimated to be from \$30.7 million to \$93.6 million of field crop losses³.

Altogether, preliminary estimated damages are up to \$93,600,000 for field crops³.

Fruits (Non-Citrus) and Tree Nuts: Up to \$2.6 million

Florida is a major producer of fruits and tree nuts, with more than \$490 million in cash receipts in 2021¹. Major products include pecans and blueberries, among others².

According to University of Florida, approximately 5,100 acres of land for Fruit (Non-Citrus) and Tree Nuts were affected with 5,000 acres experiencing tropical storm force winds and 100 acres experiencing hurricane force winds³.

According to the University of Florida, estimated value of production on the affected acreages for fruits (non-citrus) and tree nuts is valued at \$8,600,000 with a range of damages estimated to be from \$600 thousand to \$2.6 million of fruits (non-citrus) and tree nuts losses³.

Altogether, preliminary estimated damages are up to \$2,600,000 in fruits (non-citrus) and tree nuts damages³.

Greenhouse/Nursery:

Up to \$68.8 million

Florida's nurseries provide live plants for landscapers and agricultural producers throughout the nation, and the 2021 cash receipts for floriculture and other horticultural crops totaled more than \$1.1 billion¹.

An estimated 37,200 acres of horticultural crops for the state of Florida were affected by tropical storm or hurricane force winds with 1,800 acres experiencing hurricane force winds and 35,400 acres experiencing tropical storm force winds.

According to the University of Florida, estimated value of production on the affected acreages for greenhouse/nursery is valued at \$1,187,400,000 with a range of damages estimated to be from \$4.7 million to \$68.8 million of greenhouse/nursery losses³.

Altogether, preliminary estimated damages are up to \$68,800,000 in greenhouse/nursery damages³.

Animals and Animal Products (includes Cattle, Poultry, Aquaculture and Dairy): Up to \$157.6 million

All livestock and animal products attributed to more than \$1.5 billion in 2021 cash receipts¹. Beef cattle production is one of Florida's most important land uses, with more than 1.62 million animals grazing on approximately 6.1 million acres of pasture and woodlands, and annual sales of \$546 million in 2021¹. Florida is also home to over 97,000 dairy cows (USDA), with annual milk sales over \$469 million in 2021 (USDA)¹. Poultry broilers had over \$210 million in cash receipts in 2021¹. Aquaculture provided over \$71 million in cash receipts in 2018 (USDA)¹.

An estimated 2,598,900 acres of animal and animal products for the state of Florida were affected by tropical storm or hurricane force winds with 85,800 acres experiencing category 3 hurricane force winds, 6,800 acres experiencing category 2 hurricane force winds, and 2,506,300 acres experiencing tropical storm force winds.

According to the University of Florida, estimated value of production on the affected acreages for animals and animal products is valued at \$1,232,200,000 with a range of damages estimated to be from \$30.9 million to \$123.4 million³. This range in estimated damages includes damaged fencing, damaged livestock sheds (barns, poultry houses, etc.) and watering points, and widespread power outages and loss of feed.

The Florida Department of Agriculture and Consumer Services, Division of Aquaculture conducted a Hurricane Idalia Damage Assessment Survey. A total of 324 Aquaculture Certificate of Registration holders and 64 shellfish processors in impacted areas were contacted for the survey and 296 (72%) responses were received. These numbers are preliminary estimates and are expected to increase as farmers evaluate losses and delayed mortalities due to the storm. Hurricane Idalia losses for aquaculture are estimated at \$34,159,952 million.

Altogether, production and infrastructure losses associated with animal operations (beef and dairy cattle, poultry, aquaculture, apiculture, etc.) are expected to have damages of up to \$157,559,952.

Vegetables and Melons: Up to \$60.6 million

Florida is a major producer of vegetables and melons, with more than \$1.3 billion in cash receipts in 2021. Major products include melons, snap beans, bell peppers, carrots, and eggplants, among many others¹.

An estimated 54,000 acres of fruits and vegetables were affected by hurricane or tropical storm winds, with 4,900 acres experiencing category 3 hurricane force winds, 1,100 acres experiencing category 2 hurricane force winds, and 48,000 acres experiencing tropical storm force winds³.

According to the University of Florida, estimated value of production on the affected acreages for vegetables and melons is valued at \$750,100,000 with a range of damages estimated to be from \$11.8 million to \$60.6 million of vegetables and melons losses³.

Altogether, preliminary estimated damages are up to \$60,600,000³ for vegetables and melons.

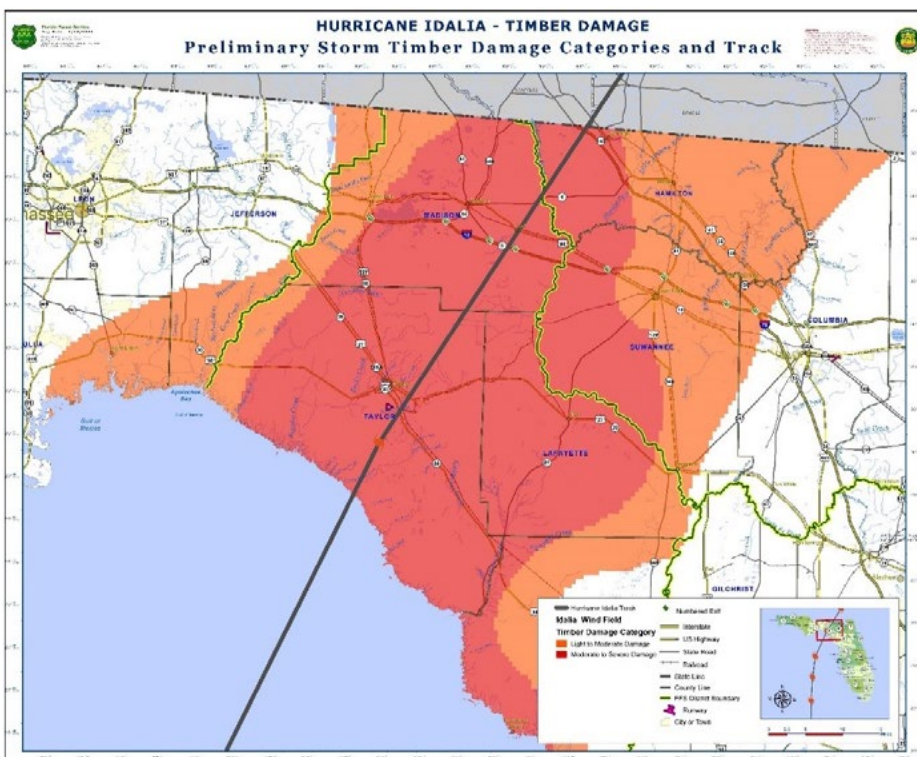
Forestry:

\$64.7 million

Nearly 50% of Florida's land, or approximately 17.16 million acres, is forestland cover. The state has extensive natural and planted pine and hardwood forests that are commercially utilized for production of a wide variety of wood building materials, consumer paper and packaging products, chemicals, and renewable biomass fuels. Nearly two-thirds of Florida's forestlands are privately owned by industry, corporations, families, or individuals.

Calculations reflect pre-storm values and does not reflect post-storm salvage rates which may be much lower. Further, these figures represent all timber damaged, regardless of potential to be marketed for products. No urban land use classifications were used in calculating the damaged timber acreage.

The counties included for this preliminary timber damage assessment report are Dixie, Hamilton, Lafayette, Madison, Suwannee, and Taylor counties. There were 289,096 acres affected (266,627 private and 22,469 public) by Hurricane Idalia. Timber categories were divided into pine, pine/hardwood, hardwood, and cypress. Average prices were based on past timber sales on Florida Forest Service lands. This methodology indicates that the total loss experienced by Florida forest products industry in the current year is estimated at \$64,751,255.



DATA SOURCES

Sources Used

1. https://www.nass.usda.gov/Statistics_by_State/Florida/index.php
2. <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>
3. <https://fred.ifas.ufl.edu/extension/economic-impact-analysis-program/disaster-impact-analysis/hurricane-idalia-damage-assessments/>
4. <https://nwdistrict.ifas.ufl.edu/phag/2021/11/19/how-much-is-that-cheaper-cow-hay-really-costing-you/>

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