

The Florida Senate
COMMITTEE MEETING EXPANDED AGENDA

AGRICULTURE
Senator Truenow, Chair
Senator Grall, Vice Chair

MEETING DATE: Tuesday, January 14, 2025
TIME: 11:00 a.m.—1:00 p.m.
PLACE: 301 Senate Building

MEMBERS: Senator Truenow, Chair; Senator Grall, Vice Chair; Senators Bernard, Boyd, Burton, and Rouson

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Introduction of Members and Discussion of Priorities		Presented
2	Presentation by Commissioner Wilton Simpson, Department of Agriculture and Consumer Services		Presented
3	Presentation on the Effect of the 2024 Hurricane Season on Agriculture by Dr.Christa Court, Associate Professor of Regional Economics & Director, Economic Impact Analysis Program, UF/IFAS		Presented
Other Related Meeting Documents			

01/14/2025

Meeting Date

Agriculture

Committee

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

N/A

Bill Number or Topic

Amendment Barcode (if applicable)

Name Commissioner of Agriculture Wilton Simpson

Phone 850-617-7700

Address 400 S. Monroe St.

Email N/A

Street

Tallahassee

FL

32399

City

State

Zip

Speaking: For Against Information **OR** Waive Speaking: In Support Against

PLEASE CHECK ONE OF THE FOLLOWING:

I am appearing without compensation or sponsorship.

I am a registered lobbyist, representing:

I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

This form is part of the public record for this meeting.

Estimated Agricultural Losses Resulting from the 2024 Atlantic Hurricane Season

Prepared for The Florida Senate Committee on Agriculture

DR. CHRISTA D. COURT, ASSOCIATE PROFESSOR
DR. XIAOHUI QIAO, RESEARCH ASSISTANT PROFESSOR
ROBERTO KOENEKE, GRADUATE RESEARCH ASSISTANT
KELSEY MCDAID, RESEARCH COORDINATOR

DEPARTMENT OF FOOD AND RESOURCE ECONOMICS
UF/IFAS ECONOMIC IMPACT ANALYSIS PROGRAM
UNIVERSITY OF FLORIDA

January 14, 2025



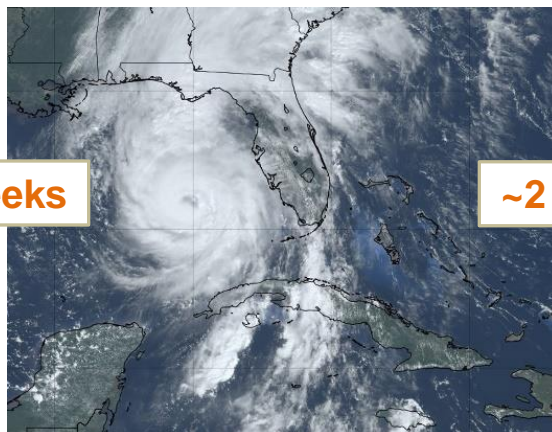
Overview of 2024 Atlantic Hurricane Season in Florida



~7 weeks

Hurricane Debby Category 1

- Landfall on August 5, 2024, near Steinhatchee, FL
- 4 counties experienced hurricane force winds
- 34 additional counties experienced tropical storm-force winds



~2 weeks

Hurricane Helene Category 4

- Landfall on September 26, 2024, near Perry, FL
- 8 counties experienced hurricane force winds
- 55 additional counties experienced tropical storm-force winds



Hurricane Milton Category 3

- Landfall on October 9, 2024, near Siesta Key, FL
- 14 counties experienced hurricane force winds
- 43 additional counties experienced tropical storm-force winds

Hurricane Debby Characteristics

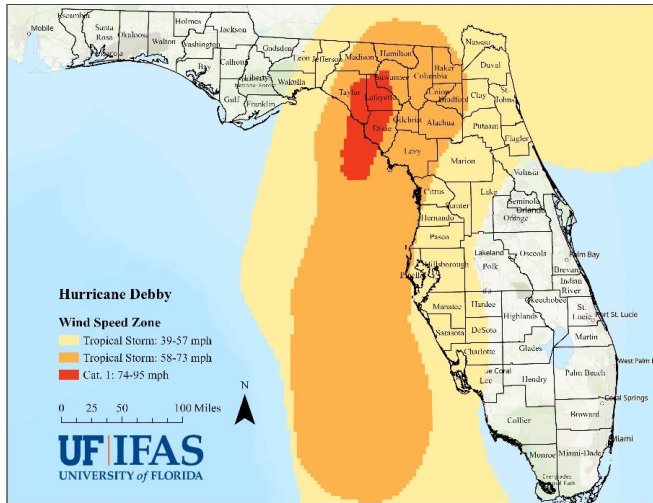


Figure 1. Wind swath pattern of Hurricane Debby as it impacted Florida.

Source: Geospatial data on the wind swath of Hurricane Debby are derived from NOAA NHC (<https://www.nhc.noaa.gov/gis/>).

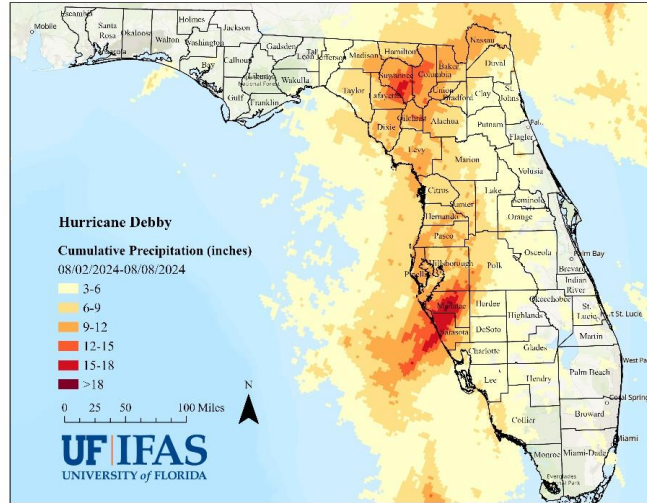


Figure 2. Cumulative precipitation totals in Florida (August 2-8, 2024).

Source: Precipitation data are derived from NOAA National Weather Service Quantitative Precipitation Estimate (QPE) Data (<https://water.weather.gov/precip/download.php>).

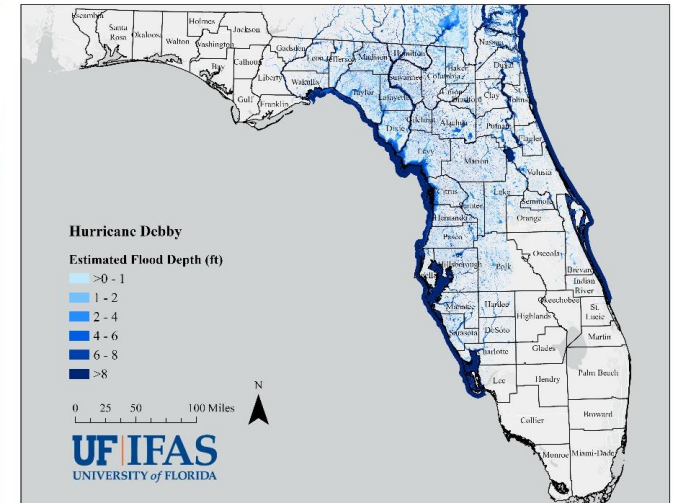


Figure 3. Estimated flood inundation depth caused by Hurricane Debby in Florida.

Source: Estimated flood inundation data are retrieved from Pacific Northwest National Laboratory's Rapid Infrastructure Flooding Tool (<https://open-rift-pnnl.hub.arcgis.com/maps/0a38c4d97a6b47369de20fb0c59231c6/about>).

Hurricane Helene Characteristics

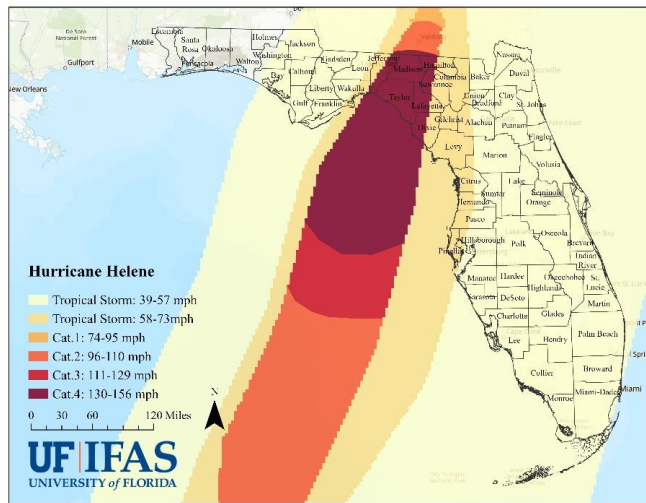


Figure 1. Wind swath pattern of Hurricane Helene as it impacted Florida.

Source: Geospatial data on the wind swath of Hurricane Helene are derived from NOAA NHC (<https://www.nhc.noaa.gov/gis/>).

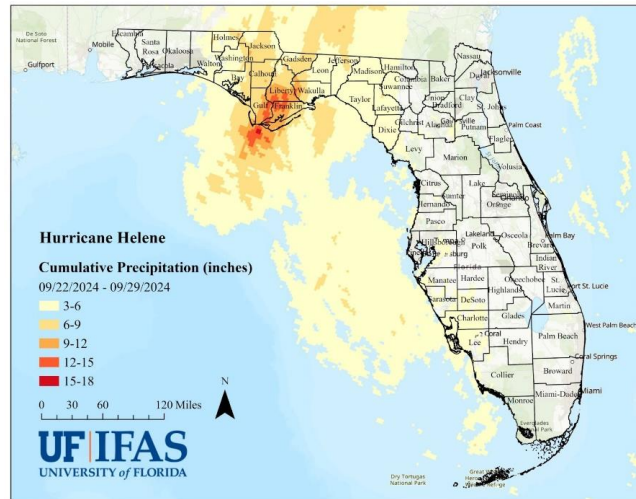


Figure 2. Cumulative precipitation totals in Florida (September 22-29, 2024).

Source: Precipitation data are derived from NOAA National Weather Service Quantitative Precipitation Estimate (QPE) Data (<https://water.weather.gov/precip/download.php>).

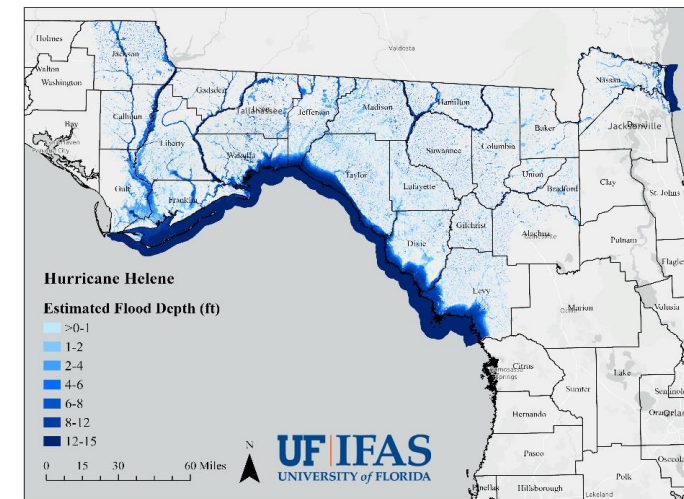


Figure 3. Estimated flood inundation depth caused by Hurricane Helene in Florida.

Source: Estimated flood inundation data are retrieved from Pacific Northwest National Laboratory's Rapid Infrastructure Flooding Tool (<https://open-rift-pnnl.hub.arcgis.com/documents/0dcc98b06bb8478c8ff708df796fe047/about>).

Hurricane Milton Characteristics

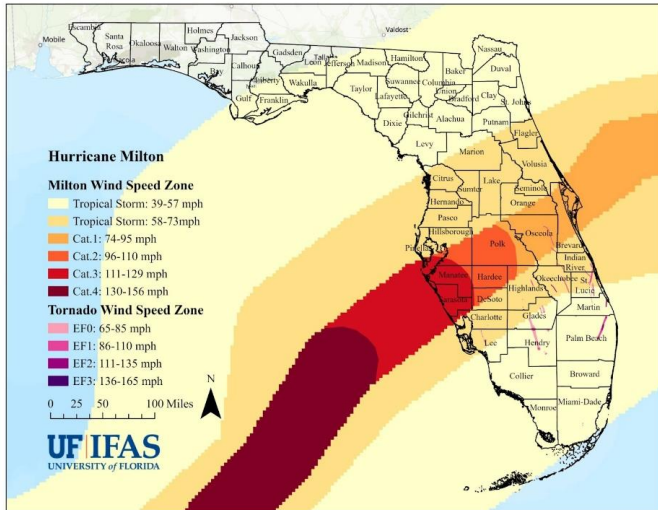


Figure 1. Wind swath pattern of Hurricane Milton as it impacted Florida.

Source: Geospatial data on the wind swath of Hurricane Milton are derived from NOAA NHC (<https://www.nhc.noaa.gov/gis/>). Geospatial data on the wind swaths of tornadoes are derived from NOAA NWS Damage Assessment Toolkit (<https://apps.dat.noaa.gov/StormDamage/DamageViewer/>).

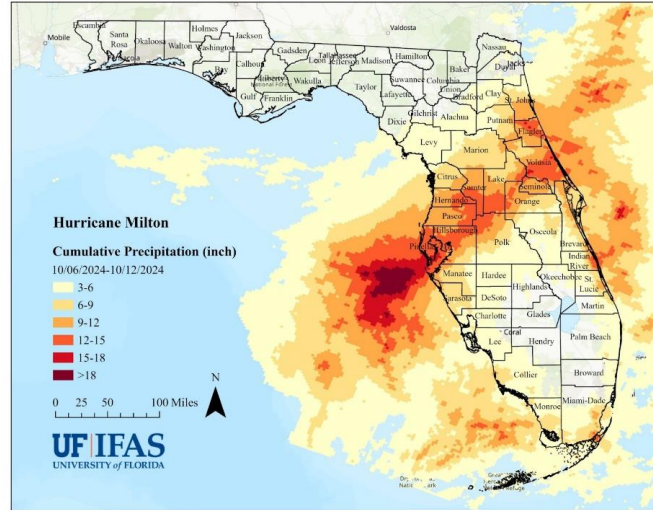


Figure 2. Cumulative precipitation totals in Florida (October 6-12, 2024).

Source: Precipitation data are derived from NOAA National Weather Service Quantitative Precipitation Estimate (QPE) Data (<https://water.weather.gov/precip/download.php>).

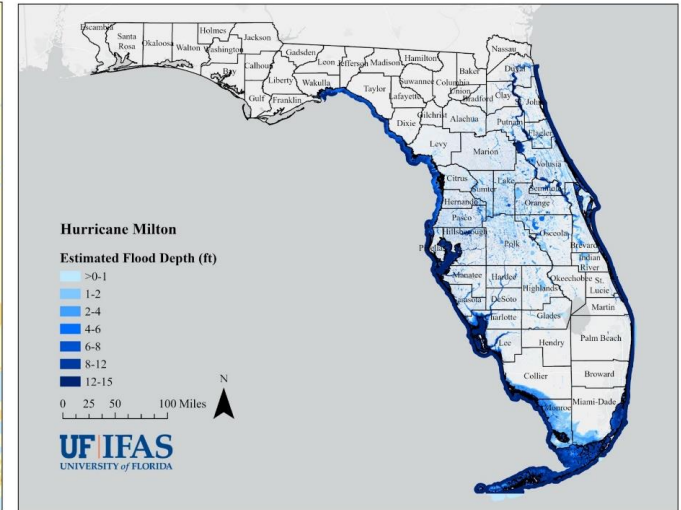
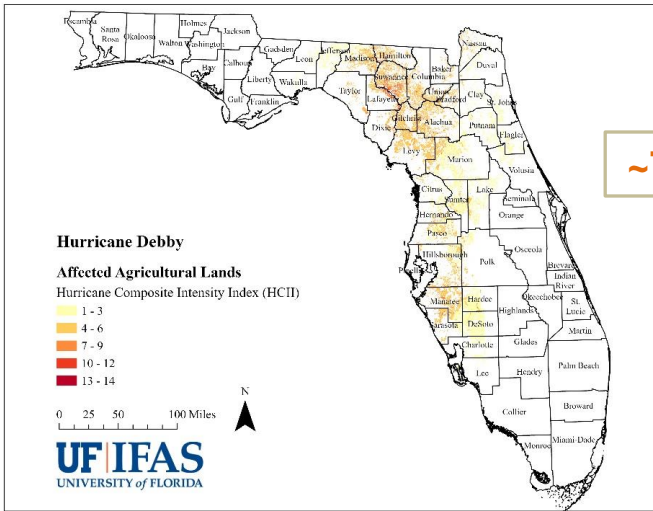


Figure 3. Estimated flood inundation depth caused by Hurricane Milton in Florida.

Source: Estimated flood inundation data are retrieved from Pacific Northwest National Laboratory's Rapid Infrastructure Flooding Tool (<https://open-rift-pnnl.hub.arcgis.com/datasets/6ad56f6b56014fbfb0c492379bd78eeb/about>).

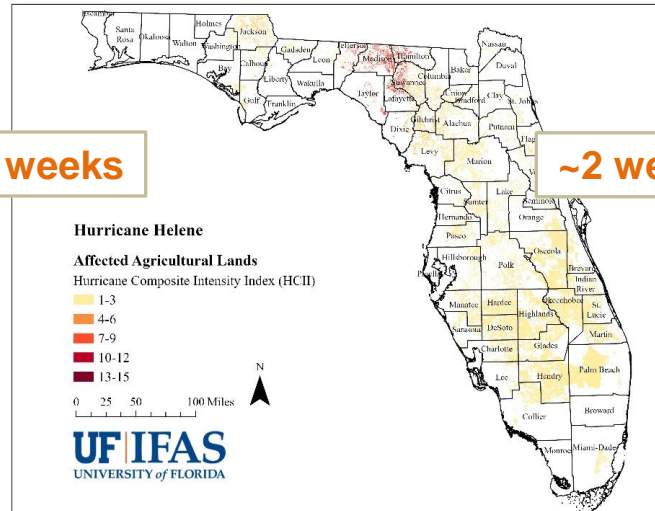
Florida Agricultural Lands Impacted in 2024

Hurricane Debby



~7 weeks

Hurricane Helene



~2 weeks

Hurricane Milton

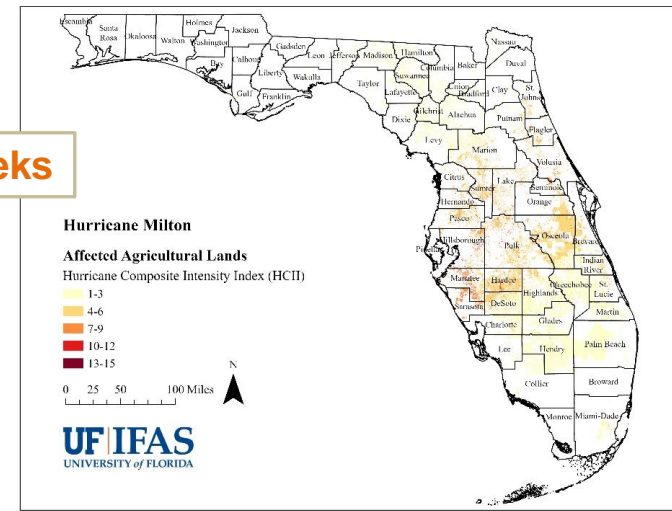


Figure 4. Hurricane Composite Intensity Index (HCII) level for agricultural lands impacted by Hurricane Debby in Florida.

- Over 2.2 million acres of agricultural lands that annually produce \$3.17 billion in agricultural products affected
- Around 48,000 acres (\$83.30 million in annual production) experienced high-intensity weather conditions (HCII 10 – 15)

Figure 4. Hurricane Composite Intensity Index (HCII) level for agricultural lands impacted by Hurricane Helene in Florida.

- Over 6.1 million acres of agricultural lands that annually produce \$8.74 billion in agricultural products affected
- Around 18,000 acres (\$33.24 million in annual production) experienced high-intensity weather conditions (HCII 10 – 15)

Figure 4. Hurricane Composite Intensity Index (HCII) level for agricultural lands impacted by Hurricane Milton in Florida.

- Over 5.7 million acres of agricultural lands that annually produce \$8.66 billion in agricultural products affected
- Around 38,000 acres (\$44.24 million in annual production) experienced high-intensity weather conditions (HCII 10 – 15)

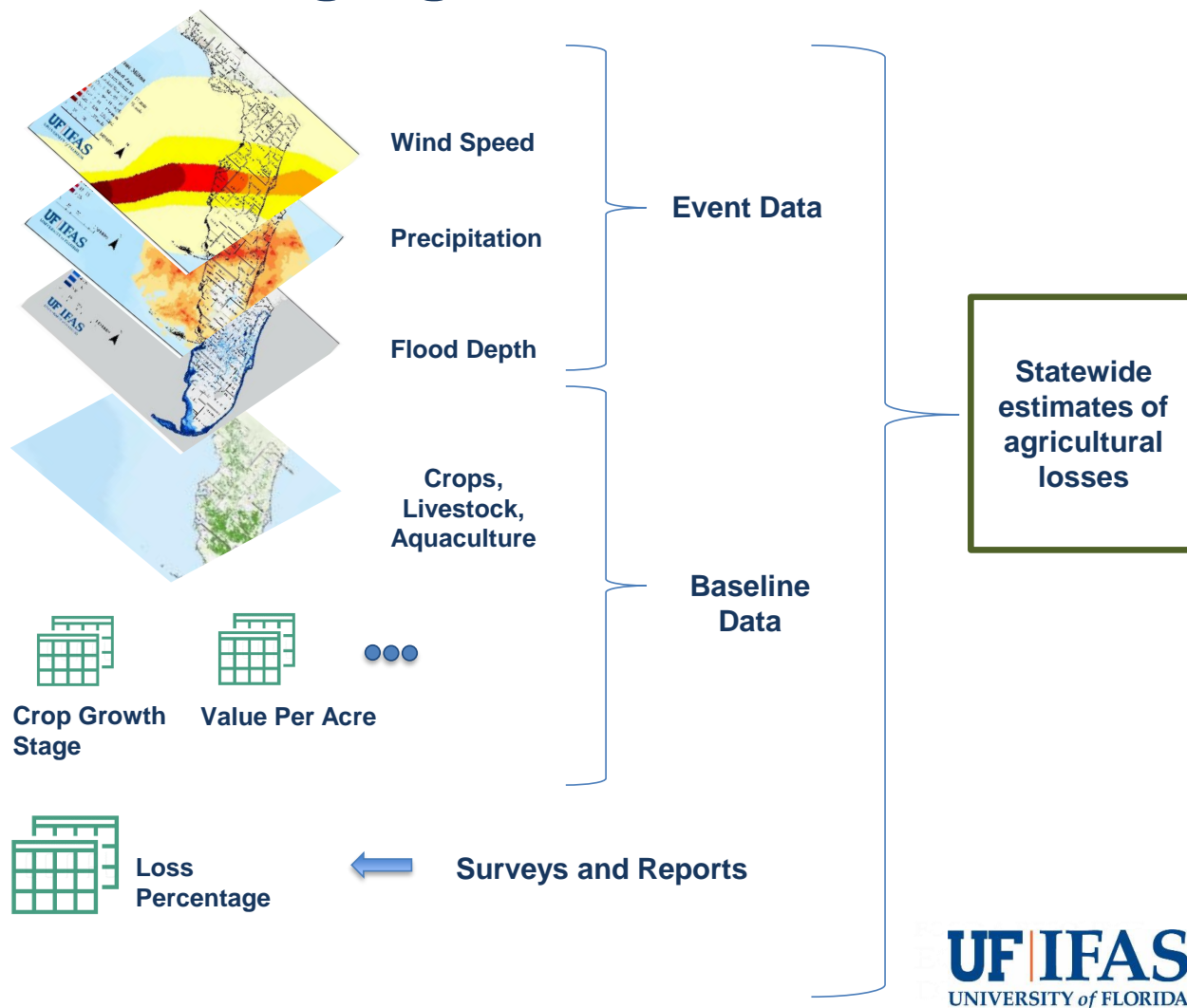
Source: The agricultural lands geospatial data are from the Florida Statewide Agricultural Irrigation Demand (FSAID) Agricultural Lands Geodatabase (ALG) developed by the Florida Department of Agriculture and Consumer Services (FDACS) (<https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Water-Supply-Planning>).

Methodology for Estimating Agricultural Losses



ECONOMIC IMPACT ANALYSIS PROGRAM

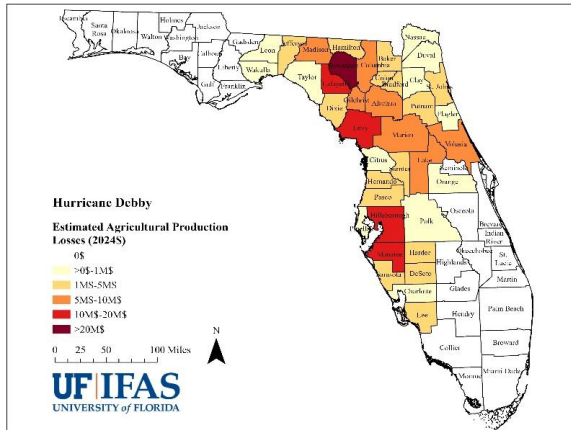
Adapted from:
Food and Agriculture Organization
of the United Nations



Methodology for Estimating Agricultural Losses (cntnd.)

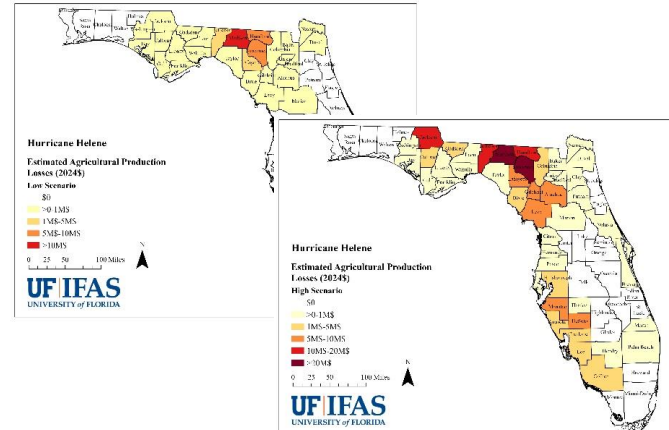
- **These production loss estimates are preliminary and might change as additional information specific to Hurricanes Debby, Helene, and Milton is collected.**
- **Production loss estimates convey the percentage/value of annual production (for calendar year 2024 or, in the case of some crops, marketing year 2024-25) that has been lost due to Hurricanes Debby, Helene, and Milton.**
 - Some crops have multiple growing seasons in Florida and others sell product year-round, which has been roughly accounted for in estimated loss percentage values.
 - Adjustments have been made to estimated loss percentage values to account for planting and harvesting progress for some commodity groups, but further adjustments might be made as information on early harvesting prior to the event, delayed planting, or the potential for growers to replant damaged or destroyed acreage is shared.
 - Losses that might occur in calendar year 2025, marketing year 2025-2026, or beyond are not assessed and would be “in addition to” these estimates.
 - The Low and High scenarios should be interpreted as low and high estimates on averages for the relevant commodity group and wind speed zone and should not be interpreted as minimum and maximum values for individual producers or for commodity groups.
 - Production loss estimates do not include the value of stored inputs or stored harvested products that were damaged or destroyed nor does it include the value of damages to infrastructure (including perennial plantings and lost/deceased animals) that will require repair or replacement.
 - These estimates do not account for the fact that some crop losses might be eligible for or covered by crop insurance or other risk management tools available to producers.
- **A range of potential production losses is provided as opposed to point values to reflect the uncertainty that remains surrounding percentage production losses (for reasons provided above and others).**

Estimated Agricultural Losses due to 2024 Atlantic Hurricane Season in Florida



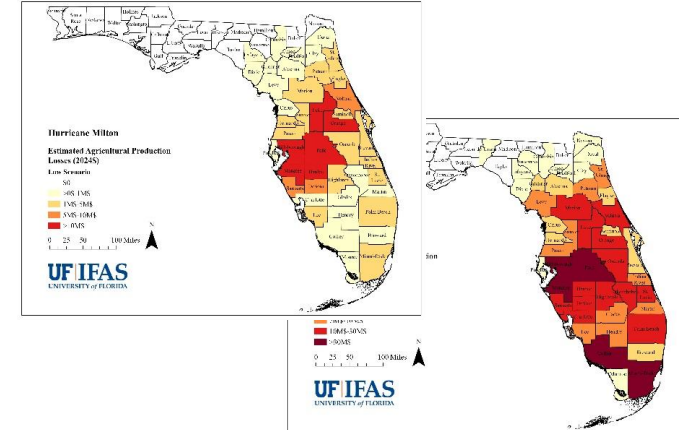
**Hurricane Debby
Agricultural Losses:**
~\$170 million

- Highest losses in Big Bend, North Central, and SW peninsula regions
- In terms of value, commodity groups with highest losses are *Field & Row Crops* and *Animals & Animal Products*



**Hurricane Helene
Agricultural Losses:**
~\$40.3 – \$162.2 million

- Highest losses in Big Bend and North Central regions with low level losses to high value crops in SW peninsula under the High Scenario.
- In terms of value, commodity groups with highest losses are *Field & Row Crops* and *Animals & Animal Products*



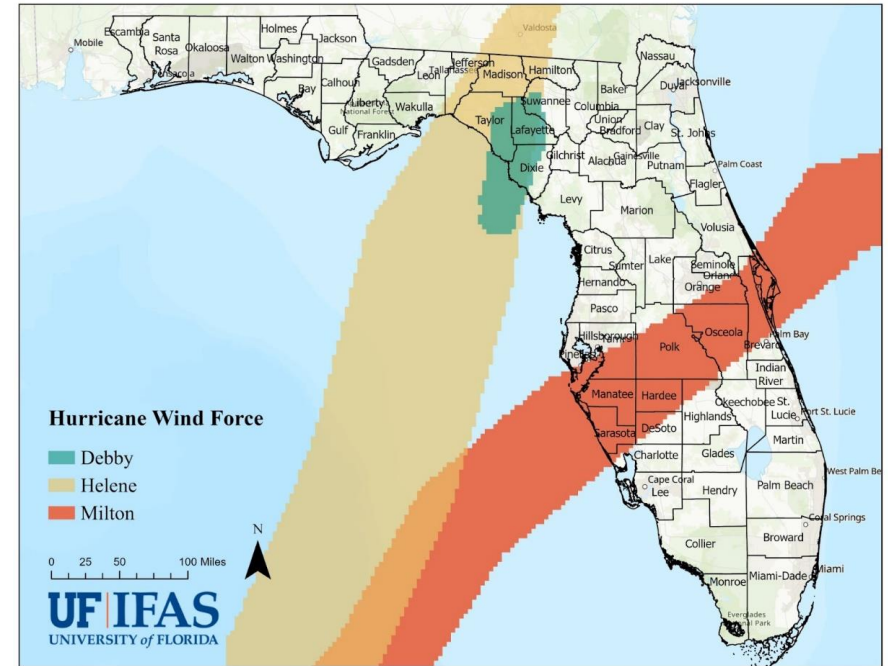
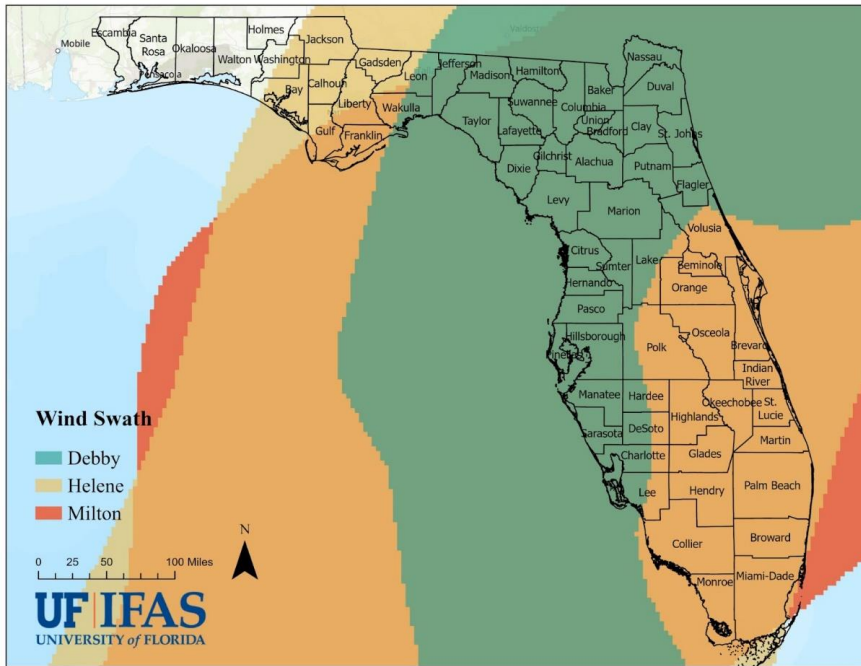
**Hurricane Milton
Agricultural Losses:**
~\$190.4 – \$642.7 million

- Highest losses in SW and Central peninsula with low level losses to high value crops driving significant losses in southern counties under the High Scenario.
- In terms of value, commodity groups with highest losses are *Vegetables, Melons, & Potatoes* and *Greenhouse/Nursery*

Cumulative agricultural production losses in Florida for the 2024 hurricane season are estimated to be between \$402.3 million and \$975.8 million.

****Results are preliminary and might change as additional information becomes available.****

Compound Disasters: Florida Agricultural Lands Impacted by Multiple Hurricanes in 2024



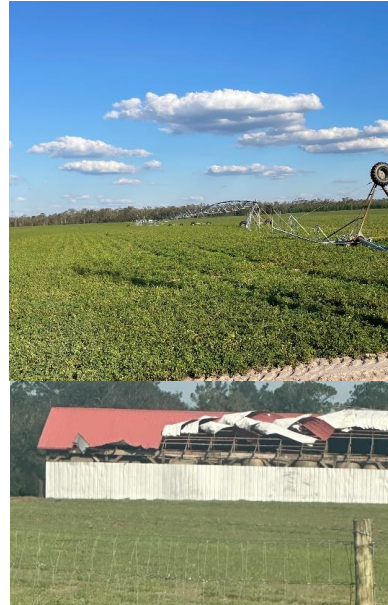
- Over 2.25 million acres of agricultural lands across 41 counties experienced at least tropical storm conditions during all three 2024 events (Hurricanes Debby, Helene, and Milton)
- Top commodity groups affected in terms of acreage were *Animals and Animal Products* and *Field and Row Crops*

- Over 71,000 acres of agricultural lands in Taylor, Lafayette, Dixie, and Suwannee counties were affected by hurricane conditions during both Hurricanes Debby and Helene
- Recall that these regions also experienced Hurricane Idalia (August 2023, Big Bend region) and Hurricane Ian (September 2022, SW Peninsula region)

Source: The agricultural lands geospatial data are from the Florida Statewide Agricultural Irrigation Demand (FSAID) Agricultural Lands Geodatabase (ALG) developed by the Florida Department of Agriculture and Consumer Services (FDACS) (<https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Water-Supply-Planning>).

Asset and production damage

- **Survey respondents reported damage to or destruction of the following types of agricultural assets:**
 - Homes
 - Barns and storage structures
 - Livestock sheds and watering points
 - Greenhouse and other growing structures
 - Fencing (exterior and interior)
 - Irrigation systems
 - Conservation structures
 - Aquaculture structures and equipment
 - Honey bee boxes
 - Farm equipment (tractors, vehicles, greenhouse heating/cooling, etc.)
 - Perennial plantings
- **Survey respondents also reported damage to or destruction of stored harvested products and the following types of stored inputs:**
 - Stored animal products (e.g., eggs, meat, milk)
 - Stored food fishes
 - Fertilizer, pesticides, and animal medicine
 - Seeds
 - Fish feed, fingerlings, aquatic medicine
 - Honey bee feed
 - Stored hay, millet, and feed grain
 - Bird scratch/feed



Photos courtesy of survey respondents.

What else is not included?

- **Labor and materials costs associated with event-specific preparations and clean-up**
- **Impacts to timber/forestry**
 - Timber/forestry impacts are assessed by the Florida Forest Service
- **Impacts to affiliated businesses throughout the supply chain**
 - Impacts to upstream operations that might result from changes in purchasing behavior of impacted agricultural producers in Florida
 - Impacts to downstream operations that use Florida agricultural products in their processing, packaging, or manufacturing operations
- **Impacts to UF/IFAS facilities**
 - Damage to UF/IFAS Research and Education Centers (RECs) and other Research & Demonstration Sites across the State of Florida
 - Tree and debris removal at off-campus UF/IFAS facilities
 - Losses incurred on active research projects (replanting of crops, additional supplies, temporary labor, etc.)
 - Rental of modular facilities for displace UF/IFAS personnel
- **Impacts to commercial fishing and working waterfronts**
 - Impacts to commercial fishing and working waterfronts are often assessed by NOAA Fisheries or the Florida Fish and Wildlife Conservation Commission (FWC)
- **Impacts to natural resources and ecosystem services**

Thank You!

Dr. Christa D. Court

ccourt@ufl.edu

UF/IFAS Economic Impact Analysis Program (EIAP)

<https://go.ufl.edu/eiap>

UF/IFAS EIAP Hurricane Debby Resources

<https://go.ufl.edu/DebbyAgImpacts2024>

UF/IFAS EIAP Hurricane Helene Resources

<https://go.ufl.edu/HeleneAgImpacts2024>

UF/IFAS EIAP Hurricane Milton Resources

<https://go.ufl.edu/MiltonAgImpacts2024>



The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to Senate professional staff conducting the meeting

hurricane damage

Bill Number or Topic

1/14/25

Meeting Date

Senate Ag

Committee

Amendment Barcode (if applicable)

Name Dr. Charita Court

Phone (352) 294-7675

Address 14493 NW 27th Place

Email ccourt@ufl.edu

Newberry

City

FL

State

32669

Zip

Speaking: [] For [] Against [x] Information OR Waive Speaking: [] In Support [] Against

PLEASE CHECK ONE OF THE FOLLOWING:

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[] I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1. 2020-2022 Joint Rules.pdf (flsenate.gov)

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S-001 (08/10/2021)



THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:

Agriculture
Banking and Insurance
Fiscal Policy
Regulated Industries
Rules

JOINT COMMITTEE:

Joint Legislative Budget Commission

SENATOR JIM BOYD

Majority Leader
20th District

January 6, 2025

Senator Keith Truenow
Senate Committee on Agriculture
404 South Monroe Street
335 Knott Building
Tallahassee, FL 32399

Dear Chairman Truenow:

I am writing to request approval to be excused from the Committee on Agriculture meeting scheduled for Tuesday, January 14, 2025.

I appreciate your consideration in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jim Boyd".

Jim Boyd

A handwritten signature in cursive script, appearing to read "Keith Truenow".

cc: Katherine Becker
Evan Denny
Ronnie Whitaker

REPLY TO:

- 717 Manatee Avenue West, Bradenton, Florida 34205 (941) 742-6445
- 318 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5020

Senate's Website: www.flsenate.gov

BEN ALBRITTON
President of the Senate

JASON BRODEUR
President Pro Tempore

CourtSmart Tag Report

Room: SB 301

Case No.:

Type:

Caption: Senate Committee on Agriculture

Judge:

Started: 1/14/2025 11:01:32 AM

Ends: 1/14/2025 12:02:17 PM

Length: 01:00:46

11:01:34 AM Chair Truenow calls meeting to order
11:01:45 AM Roll call
11:01:50 AM Pledge of Allegiance
11:02:27 AM Tab 1, Chairman Truenow Introduction of Members and Discussion of Priorities
11:03:27 AM Vice Chair Grall
11:03:53 AM Chair Truenow
11:04:15 AM Tab 2, Presentation by Commissioner Wilton Simpson, Department of Agriculture and Consumer Services
11:04:38 AM Commissioner Wilton Simpson, Department of Agriculture and Consumer Services
11:15:22 AM Questions:
11:15:29 AM Senator Bernard
11:15:48 AM Commissioner Wilton Simpson
11:17:04 AM Senator Rouson
11:17:36 AM Commissioner Wilton Simpson
11:20:07 AM Senator Rouson
11:20:27 AM Commissioner Wilton Simpson
11:21:13 AM Chair Truenow
11:22:58 AM Commissioner Wilton Simpson
11:26:22 AM Chair Truenow
11:26:55 AM Commissioner Wilton Simpson
11:29:17 AM Senator Burton
11:29:40 AM Commissioner Wilton Simpson
11:31:18 AM Senator Burton
11:31:29 AM Commissioner Wilton Simpson
11:33:06 AM Chair Truenow
11:33:49 AM Chairman Truenow thanks Commissioner Wilton Simpson
11:34:12 AM Tab 3, Presentation on the Effect of the 2024 Hurricane Season on Agriculture by Dr. Christa Court, Associate Professor of Regional Economics & Director, Economic Impact Analysis Program, UF/IFAS
11:35:00 AM Dr. Christa Court, Associate Professor of Regional Economics & Director
11:51:53 AM Questions:
11:51:57 AM Senator Bernard
11:52:15 AM Dr. Christa Court
11:53:44 AM Senator Bernard
11:54:02 AM Chair Truenow
11:54:44 AM Dr. Christa Court
11:56:40 AM Senator Bernard
11:56:51 AM Chair Truenow
11:59:05 AM Chair Truenow thanks Dr. Christa Court
11:59:43 AM Chair Truenow welcomes closing comments
12:00:01 PM Senator Bernard
12:00:19 PM Senator Rouson
12:00:51 PM Chair Truenow
12:01:48 PM Senator Burton moves to adjourn
12:01:58 PM Meeting adjourned