

HURRICANES

FDACS-P-01461 Technical Bulletin #02 - Updated April 2024



Overview:

*Florida's Hurricane History
Family and Farm Disaster Planning
Shellfish Harvest Area Closures
Disaster Recovery Information*

Safeguarding the public and supporting Florida's agricultural economy.

Hurricane Facts

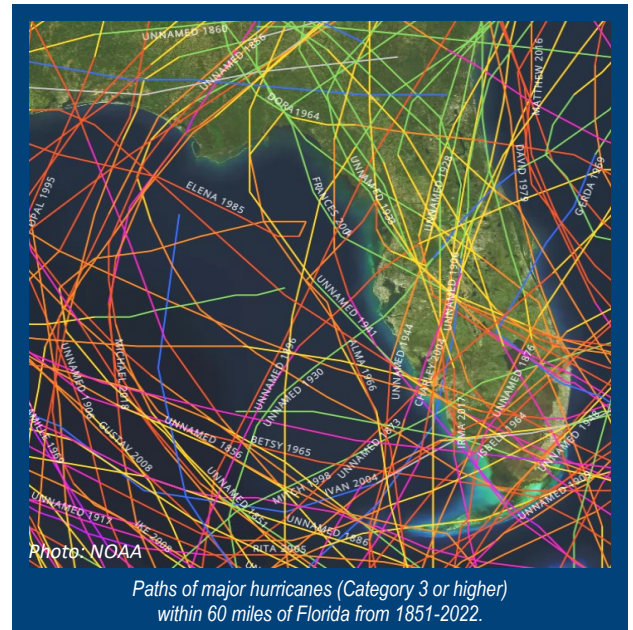
- ◆ The official Atlantic hurricane season runs from June 1 to November 30 every year. These dates encompass 99% of tropical hurricane activity.
- ◆ There were 947 hurricanes in the North Atlantic from 1851-2023, an average of 5.5 per year.
- ◆ September is the most active month of Atlantic hurricane season, representing 49% of total hurricanes that occurred from 1851-2023.
- ◆ 27% of all U.S. hurricanes have hit Florida.
- ◆ Approximately 90% of hurricane fatalities occur in water-related incidents, with 49% occurring from storm surge.
- ◆ Hurricane Ian is now Florida's costliest hurricane to date, with an estimated \$84 billion in economic losses.

Florida's Hurricane History

Florida leads the nation in direct hurricane hits for the period from 1851 to 2023. Florida experienced 59 major hurricanes (Category 3 or greater) during this period as compared to the next highest states: Louisiana (33), Texas (26), Alabama (20), Mississippi (20), North Carolina (15), Georgia (14) and South Carolina (14). Twenty-seven percent of all U.S. hurricanes have hit Florida; 40 percent of hurricanes at a Category 4 or higher have hit either Texas, Louisiana or Florida.

The threat of major hurricanes increases from west to east as the hurricane season progresses each year. As such, Texas and Louisiana are the prime targets for early season hurricanes, while the east coast of Florida is most likely to be impacted in October each year. Regardless of this trend, September remains the peak of hurricane season with as many major hurricane landfalls as October and August combined. The earliest hurricane on record to strike Florida was Alma on June 9, 1966, while the latest to strike Florida was Kate on November 21, 1985.

Six of the top ten costliest hurricanes in U.S. history have impacted Florida. The state's population is increasing an average of 1.1 percent annually, with 1.2 million more residents from 2016 to 2021. As Florida's population continues to expand, projected at 25 million by 2030, the economic



impacts from hurricanes are also increasing. Population growth is predominantly occurring less than 50 miles from the coastline, further exacerbating the potential economic damage. For example, all three hurricanes making U.S. landfall in 2008 made the top 30 list of costliest hurricanes in U.S. history, despite none of them being major hurricanes at landfall.

Fortunately, due to an increase in hurricane preparation, planning, forecast and warning systems the number of fatalities per hurricane is in decline. The perpetual threat of hurricanes in Florida, in combination with the state's growing population and economy, emphasize the importance of wise business planning and storm preparedness.

Information from [NOAA Historical Hurricane Database](#).



Shellfish Harvest Areas Closures During a Hurricane

When a hurricane warning is issued by the National Weather Service, Division staff temporarily close shellfish harvest areas (SHA) included in the warning at sunset.

These precautionary emergency closures are in anticipation of storm surge, heavy rainfall and power outages at waste water treatment plants that could contaminate SHAs with surface water runoff.

If the hurricane does not strike the area and the anticipated damage does not occur, then SHAs will be immediately reopened the following day at sunrise.

However, if SHAs are impacted, Division staff will systematically collect water samples and shellfish meat samples for testing to reopen SHAs and ensure a safe and wholesome product can enter the supply chain.

For more information about SHA closures, contact the Division by email at Aquaculture_Web@FDACS.gov, by phone at (850) 617-7600 or by visiting: www.FDACS.gov/Agriculture-Industry/Aquaculture/Shellfish-Harvesting-Area-Classification/Shellfish-Harvesting-Area-Information

Family and Farm Disaster Planning

Discuss the type of hazards that could affect your farm and family. Know your vulnerability to storm surge, flooding and wind.

- ☑ Develop standard operating procedures for preparing for a hurricane and maintaining your facility when you cannot access critical services.
- ☑ Test emergency backups systems (for example, generators and auxiliary oxygen systems) and secure extra fuel supplies if possible.
- ☑ Place your farm on a priority reactivation list with your utility, fuel and oxygen suppliers.
- ☑ Post up-to-date contact information for all employees, and make sure everyone knows how and when to call 911.
- ☑ Check your farm's insurance coverage.
- ☑ Take photos of the facility, machinery and inventory before a storm for records.
- ☑ Secure outdoor objects that may become a hazard during high winds.
- ☑ Determine escape routes from your home or farm and places to meet.
- ☑ Stock non-perishable emergency supplies and a disaster supply kit.
- ☑ Use a NOAA weather radio and replace its battery every six months.
- ☑ The Federal Emergency Management Agency (FEMA) provides a wealth of information on preparation and recovery from hurricanes. Find information specific to your area at: www.DisasterAssistance.gov/.

Stopping Price Gouging During Emergencies

During a state of emergency the State of Florida may invoke a price-gouging statute. This statute makes it illegal to charge excessive or exorbitant prices for essential items, including shelter, gasoline, food, water, ice, lumber or generators, unless the increases in the amount charged are attributed to additional costs incurred by retailers. Individuals or businesses found to have engaged in price gouging face fines of up to \$1,000 per violation, or up to a maximum fine of \$25,000 per day.

The Department encourages residents who witness what they believe are price gouging incidents to report it at once to the Department's price-gouging hotline:

1-800-HELP-FLA (435-7352)

USDA Rural Development Resource Guide

The USDA released a [resource guide](#) to help rural communities seeking disaster resiliency and recovery assistance. The resource guide outlines the USDA Rural Development (RD) programs and services that can help rural residents, businesses and communities impacted by disasters and support long-term planning and recovery efforts. Click these links for [State Office Information](#), [Full Resource Guide PDF](#), and [additional resources from the USDA RD](#).

Post Hurricane Shellfish Processing Facility Inspection

After a hurricane, the following actions are implemented to determine whether shellfish processing facility are capable of maintaining wholesome products. Division staff call the facility that have been impacted by the storm. If contact is made, staff determine if there was loss of power, the length of time power was lost, the type and amount of product on hand, the measures taken to insure temperature abuse has not occurred (e.g., ice, portable generators, refrigerated vehicles or trailers), the integrity of water supply, the extent of facility damage, the extent of storm surge and length of time for repairs. Facility management will be informed of what actions will be necessary before processing can resume. Staff will then follow up with an in-person inspection as soon as practical.

If no phone contact can be established, staff will conduct an onsite inspection as soon as it is safe to do so. Special attention is given to structural integrity, water supply, cooling systems and ice production. Facility management will then be informed of what actions will be necessary before processing can resume.

When processing plants have extensive damage, the processing certification may be suspended. The Department notifies the U.S. Food and Drug Administration as to the status of processing plants listed on the Interstate Certified Shellfish Shipper List.

Internet Resources

Small Business Administration:
www.SBA.gov/

USDA Farm Service Agency:
www.FSA.USDA.gov/

Federal Emergency Management Agency (FEMA):
www.FEMA.gov/

FEMA Disaster Assistance:
www.DisasterAssistance.gov/

Florida Department of Agriculture and Consumer Services:
www.FDACS.gov

Florida Division of Emergency Management:
www.FloridaDisaster.org/

FL Mosquito Control Directory:
www.FDACS.gov/Business-Services/Mosquito-Control

Telephone Resources

Agency for Workforce Innovation (unemployment claims): 1-800-204-2418

American Red Cross:
1-800-RED-CROSS (733-2767)

American Red Cross Disaster Assistance:
1-866-GET-INFO (438-4636)

Construction Industry Licensing Board: (850) 487-1395

FDACS, Division of Consumer Services (price gouging and fraud):
1-800-HELP-FLA (435-7352)

Department of Children and Families (D-SNAP): 1-866-762-2237

Department of Financial Services (insurance complaints and assistance):
(850) 413-3089

Florida Emergency Information Hotline: 1-800-342-3557

Salvation Army Donation Hotline:
1-800-SAL-ARMY (725-2769)

FL Mosquito Control Information:
(850) 617-7917

Farm Disaster Recovery Information

After a Presidential Disaster Declaration individuals and farms should contact FEMA at 1-800-621-3362 or www.FEMA.gov/assistance/individual to apply for assistance and receive a FEMA application number. Once an application is processed, further assistance will be available at Disaster Recover Centers. Federal, state and local representatives will be available at the Centers to assist with recovery. The following programs may be available to assist your aquaculture business with recovery efforts.

Small Business Administration offers low interest loans to individuals and businesses for refinancing, repair, rehabilitation or replacement of damaged property (real and personal). For more information see: www.SBA.gov/funding-programs/disaster-assistance.

Disaster Unemployment Assistance is for individuals not covered by regular state or private unemployment insurance. Individuals may be eligible for unemployment benefits that can be provided until an individual is reemployed or up to 26 weeks after the major disaster is declared (whichever is shorter). For more information, see: www.Benefits.gov/benefit/597.

Farm Service Agency offers low interest disaster loans to farms, ranchers and agricultural operators for physical or production losses. Loans of up to 100 percent of actual production loss or physical losses, with a maximum indebtedness of \$500,000, may be made to the tenant or owner. For more information, see: www.FSA.USDA.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/2019/emergency-loan-program.pdf.

Noninsured Crop Disaster Assistance Program (or NAP) provides financial assistance to producers of noninsurable crops to protect against natural disasters which result in lower yields, crop losses or prevents crop planting. Eligible aquaculture commodities are any species of aquatic organisms grown as food for human consumption; fish raised as feed for fish that are consumed by humans; or ornamental fish propagated and reared in an aquatic medium. For more information, see: www.FSA.USDA.gov/programs-and-services/disaster-assistance-program/noninsured-crop-disaster-assistance/index.

Florida Department of Insurance provides assistance and information to resolve insurance claims. For more information, see: www.Floir.com/Office/HurricaneSeason/HurricaneResourcePage.aspx.

Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program provides emergency assistance to eligible producers of livestock, honeybees and farm-raised fish. For more information, see: www.FSA.USDA.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/2022/fsa_elap_generalfactsheet-22.pdf

USDA Farm Service Agency Offices

State Office (Gainesville):
(352) 379-4500

County Offices

Alachua, Bradford: (352) 376-7414

Baker, Duval, Nassau:
(904) 266-0088

Bay, Washington: (850) 547-2850

Brevard, Osceola: (407) 847-4201

Broward, Palm Beach:
(561) 792-2727

Calhoun, Franklin, Gulf, Liberty:
(850) 674-8388

Charlotte, Lee, Collier:
(239) 997-7331

Citrus, Sumter: (352) 793-2651

Clay, Flagler, Putnam, St. Johns:
(386) 328-5051

Columbia, Union: (386) 752-8447

DeSoto, Hardee, Manatee, Sarasota:
(863) 773-4764

Dixie, Gilchrist: (352) 463-2358

Escambia, Santa Rosa:
(850) 675-6696

Gadsden: (850) 627-6365

Glades, Hendry: (863) 946-1031

Hamilton: (386) 362-2681

Hernando, Pasco: (352) 277-3761

Highlands: (863) 763-3345

Hillsborough, Pinellas:
(813) 752-1474

Holmes: (850) 547-2850

Indian River, Martin, St. Lucie:
(772) 461-4546

Jackson: (850) 526-2610

Lafayette, Suwannee:
(386) 362-2681

Lake, Orange: (352) 742-7005

Leon, Jefferson, Wakulla:
(850) 997-2072

Levy: (352) 463-2358

Madison, Taylor: (850) 973-2205

Marion: (352) 732-7534

Miami Dade, Monroe:
(305) 242-1197

Okaloosa: (850) 682-2416

Okeechobee: (863) 763-3345

Polk: (863) 533-2051

Seminole, Volusia: (386) 985-4037

Walton: (850) 892-3712