STABILIZING AFTER THE STORM: GEORGIA FARMERS' FIRST 72 HOURS POST HURRICANE HELENE

Summary Report

WEATHERED BUT STRONG

GEORGIA HURRICANE RELIEF FUND

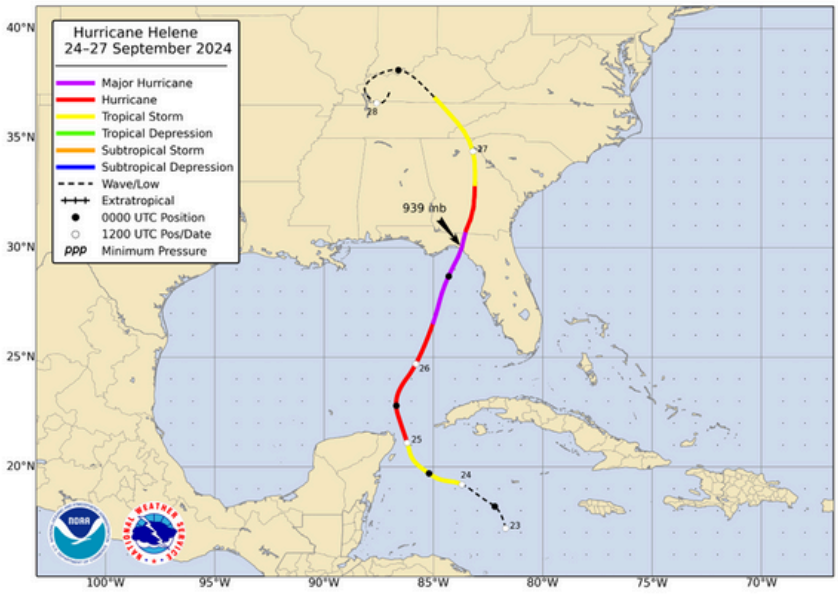
SEPTEMBER 2025

Hurricane Helene

Hurricane Helene caused widespread damage across Georgia, disrupting power, communications, transportation, and daily life across large portions of the state. **The storm was responsible for at least $5.5 billion in agricultural and timber losses, with the greatest destruction caused by hurricane-force winds across southern and eastern Georgia.**

Hundreds of homes and buildings were destroyed, and many more were damaged. Power outages were widespread, and fallen trees and debris blocked access to entire communities in the storm's path. Farther inland, damaging winds extended northward through central and eastern Georgia, continuing to cause fatalities and widespread property loss.

According to the National Hurricane Center, Hurricane Helene is the deadliest storm in the United States since Hurricane Katrina in 2005. In Georgia, Helene's winds led to 28 direct and 9 indirect fatalities and more than 80 injuries, most resulting from trees falling onto homes.



Reference: National Hurricane Center. (2025, January 22). Tropical Cyclone Report: Hurricane Helene (AL092024), 23–28 September 2024. National Oceanic and Atmospheric Administration. https://www.nhc.noaa.gov/data/tcr/AL092024_Helene.pdf

Friday, September 20, 2024
A large weather system formed over Central America, bringing heavy rain to parts of Nicaragua and Honduras.

Monday, September 23, 2024
- **8:00 AM ET -** The system showed signs of organizing in the northwestern Caribbean. The National Hurricane Center began issuing special advisories in case it developed into a storm.

Tuesday, September 24, 2024
- **8:00 AM ET -** The system officially became Tropical Storm Helene, located south of western Cuba. It already had winds of 46 mph.

Wednesday, September 25, 2024
- **2:00 AM ET -** Winds increased to 63 mph as Helene moved near Cozumel, Mexico.
- **8:00 AM ET -** Helene became a hurricane, just east of Cancun.

Thursday, September 26, 2024
- **2:00 PM ET –** Helene strengthened into a major hurricane (Category 3) over the Gulf, with a visible eye forming.
- **8:00 PM ET –** Now about 150 miles west-southwest of Tampa, Helene had winds of 120 mph.
- **8:00 PM – 11:00 PM ET –** The hurricane intensified rapidly over warm Gulf waters, preparing for landfall.

Friday, September 27, 2024
- **11:10 PM (Sept 26) – 12:10 AM ET – Landfall:** Helene slammed into the Florida Big Bend region just southwest of Perry, FL, as a Category 4 hurricane, with estimated sustained winds of 138 mph and a central pressure of 939 mb.
- **12:00–1:00 AM ET –** Helene entered southern Georgia, still a hurricane.
- **5:00 AM ET –** The center of the storm passed about 30 nautical miles east of Macon, as a strong tropical storm with 70 mph winds.
- **8:00 AM ET –** Helene crossed from Georgia into the Carolinas, near the point where Georgia, South Carolina, and North Carolina meet.
- **2:00 PM ET –** Helene became post-tropical as it moved into southern Kentucky, with winds of about 46 mph.

Saturday, September 28, 2024
- **2:00 PM ET** – The post-tropical system finally dissipated over north-central Tennessee.

About the Survey

The survey was distributed online to farmers who received Weathered But Strong disaster relief funds following Hurricane Helene. Responses were voluntary, and participants were asked to complete the survey only if they experienced storm-related impacts. The intent was to better understand the short-term challenges these farmers faced and to identify opportunities for improving future storm response and recovery efforts.

This survey was completed by 147 farmers who experienced impacts from the storm. These responses represent a broad geographic range, covering 44 counties across Georgia. Most participants gave their permission to be contacted for follow-up, allowing for additional outreach, clarification, or deeper conversations about specific needs identified in the survey.

The stories and data collected in this survey reflect more than one-time disruptions. They show how much farm recovery depends on power, water, communication, road access, labor, and equipment. These systems do not fail in isolation. When one is disrupted, others often follow.

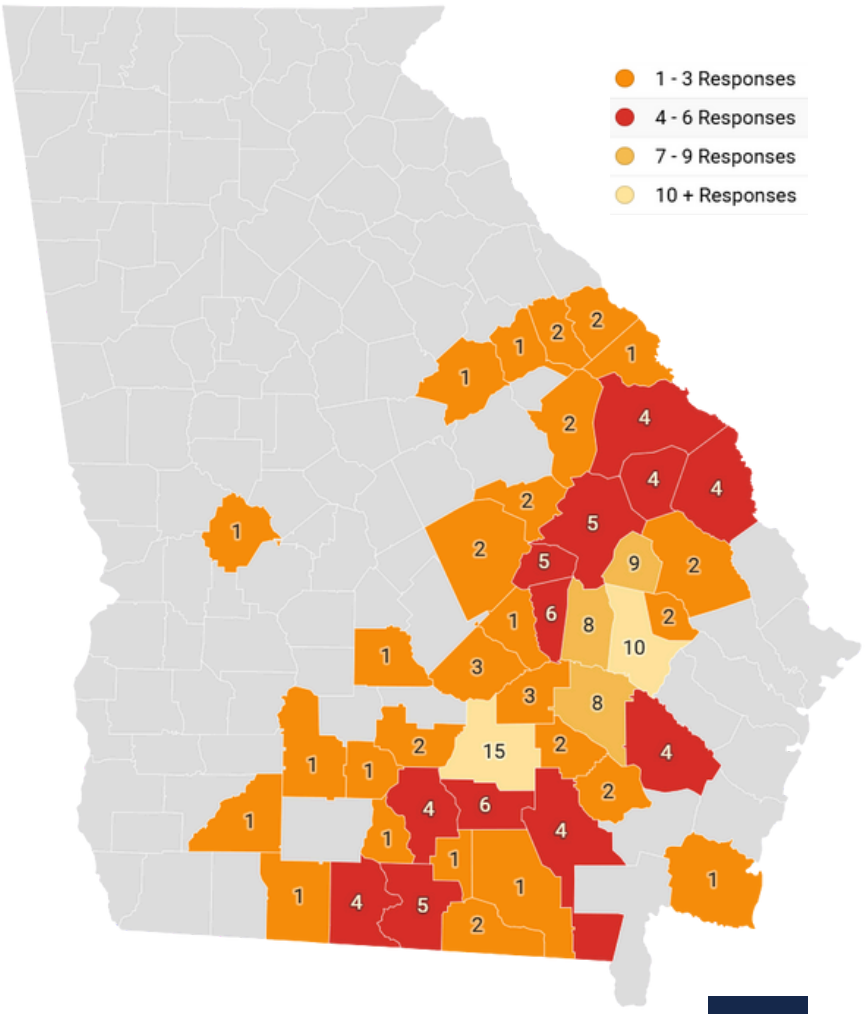
Farmers responded with honesty and urgency. They described what went wrong and offered clear, practical ideas for how to recover more quickly in the future. Many of the solutions they suggested were local and realistic. These included things like wiring wells for generators, organizing neighborhood crews, and storing essential tools ahead of time.

The farmers' responses in this report should guide future disaster planning.

In the first 72 hours after Hurricane Helene, Georgia farmers hit by the storm faced a near-total collapse of essential systems.

- **99% lost power**
- **93% lost internet**
- **93% lost cellphone coverage**
- **88% were trapped by debris**
- **84% lost road access**
- **71% lost access to water for animals & crops**
- **60% couldn't call 911**

Survey Responses by County (N=147)



Storm Impact: Key Findings at a Glance

1 Power Loss

- 99% of farmers surveyed lost power.
- 88% remained without it for more than 5 days.
- **Impact:** Power outages brought farm operations to a halt. Wells shut down, electric fencing stopped working, and essential equipment could not run. Some farmers had generators but couldn't use them because their wells or barns weren't wired for connection. Others lacked fuel or had generators that were too small. **Without backup power, many farms waited days to access water, care for animals, or begin cleanup.**

2 Communication Breakdowns

- 93% of farmers surveyed lost internet and cell service.
- 85% were still offline after five days.
- 74% had no dedicated emergency communication tools like weather radios or satellite phones.
- **Impact:** Many farmers had no way to contact emergency services, reach family, or file insurance claims. 60% said they could not reach 911. **Loss of communication slowed coordination and increased the stress of working alone.**

3 Road & Field Access

- 84% of farmers surveyed lost road access for at least 1-2 days; nearly half couldn't reach barns or fields.
- **Impact:** Blocked roads delayed recovery and left many farmers isolated. Trees, debris, and washed-out roads made it difficult to care for animals or bring in help. Some used chainsaws and tractors to clear their own paths. Others waited days before they could reach paved roads. **Delayed access meant delayed power restoration, fuel, or medical aid.**

4 Water Disruptions

- 71% of farmers surveyed lost access to water for livestock, irrigation, or sanitation.
- 61% lost drinking water.
- **Impact:** Most water systems depended on electric wells, so power outages led to extended water loss. Farms rationed water for animals and household use. Some purchased generators mid-crisis to restore access. **Livestock farms were especially affected, with several reporting 6 days or more without running water**.

5 People & Equipment

- Very few farmers marked "labor shortage" as a top challenge, but many described needing extra hands for fencing, cleanup, and animal care right after the storm.
- **Impact:** Farmers needed help clearing debris, repairing fences, and caring for animals. Many worked alone or with one other person. Equipment like skid steers, trailers, or chainsaws was often unavailable or had to be rented during the crisis. **88% of farmers surveyed said storm debris and cleanup were among their top challenges, but few had the people or tools ready to respond.**

Longer Outages = Greater Challenges

The longer farms were without power, water, internet, or access to roads, the more recovery challenges they reported.

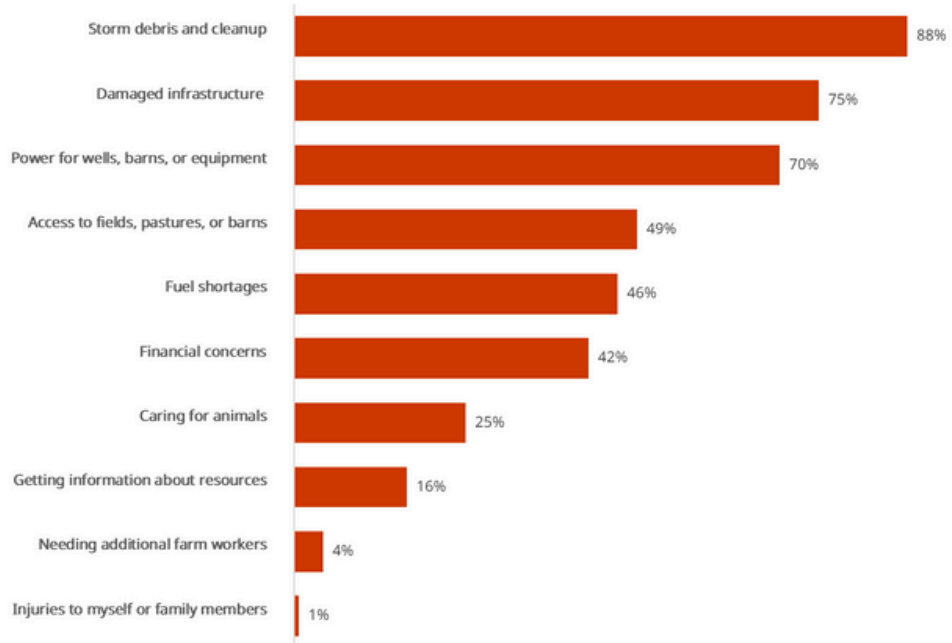
Impact: Extended outages led to cascading delays. Each additional day without core services increased financial stress, physical strain, and uncertainty. Faster restoration helped prevent losses and made early recovery more manageable.

Top Challenges Reported by Farmers

Farmers were asked to identify their top challenges during the first 72 hours after the storm. Each respondent selected up to five from a list of common issues.

The responses show how connected these challenges were. Debris blocked access. Power loss shut down wells.

Damaged infrastructure made recovery harder at every step.



Share of surveyed farmers who identified each major challenge during the first 72 hours after the storm.

Recovery Couldn't Start When the Storm Ended

Farmers described long delays before recovery could begin. Power was out. Roads were blocked. Communication was down. Even those who prepared couldn't act without fuel, equipment, or help. Stabilizing the farm took days, sometimes longer, because critical systems failed all at once.

"Getting power to the well for water. [The well] was difficult to get to from fallen trees."
-Lowndes County

71% of farmers surveyed lost access to water for livestock, irrigation, or sanitation.

"We couldn't get out of our county road to the state highway for five days."
-Toombs County

84% of farmers surveyed reported blocked road or field access after the storm.

"Cleanup was very difficult. Some areas will have to heal on their own time."
-Screven County

17% of farmers surveyed said they needed help or labor to stabilize after the storm.

"Had I had a generator, things would have gone much more smoothly."
-Tattnall County

23% of farmers surveyed said access to a generator would have helped stabilize their farm.

"There was family we couldn't reach for three days."
- Brooks County

85% of farmers surveyed were still without internet or cell service five days after the storm.

"Trees were down making our property inaccessible."
-Jeff Davis County

7% of farmers surveyed mentioned needing help with road clearing, debris removal, or blocked access.

Percentages reported above reflect answers to overall survey and not top challenges.

In Their Own Words: Georgia Farmers' Storm Recovery Stories

"It was just my husband and me. We couldn't do it all."

"We couldn't even tell our family we were okay."

"We didn't have fiber optic high-speed internet back for months."

"We had to ration water for ourselves and our livestock. The well didn't run until day six."

"There was no landline, no internet, no cell phone or satellite—no way to contact anyone."

"We used chainsaws to cut our way out just so we could get a generator and get water for the animals."

"It wasn't just power—it was not being able to water animals or flush toilets."

"Once farmers and neighbors started clearing the roads, we checked on each other. But with no service, it was hard to know who needed what."

Recovery takes a toll

The Financial Strain

- 42 % of farmers surveyed flagged money worries among their top five challenges—just behind fuel access. Actual impact is likely higher, because many cost-heavy problems (e.g., fence repair, generator fuel) appear in other categories.
- Open-ended comments reveal thousands of dollars in unplanned spending on generators, fencing supplies, debris-clearing equipment, and temporary labor. Several producers delayed repairs or skipped tasks entirely because they "ran out of cash on day 3."
- Even with emergency grants, a gap remains between immediate needs and available aid, pointing to recovery costs (fuel, rentals, overtime labor) that fall outside insurance or traditional disaster programs.

Implication: Relief funds and lenders should budget for short-term stabilization costs, especially fuel, equipment rental, and temporary hired labor, that hit before insurance claims or government assistance arrive.

The Mental & Emotional Strain

- Though the survey didn't ask directly about mental health, responses hinted at exhaustion, isolation, and decision fatigue. Farmers spoke of "doing it all with just my spouse," "not knowing what to tackle first," and feeling "overwhelmed by too many things wrong at once."
- Working long hours with limited hands, unclear information, and mounting bills compounded stress, especially where power and communication were still down.
- Low-key check-ins, peer support networks, and clear triage guides could lighten the emotional load and help farmers prioritize tasks when every hour counts.

Implication: Recovery plans that pair financial aid with mental-health check-ins, peer crews, and up-to-date resource information will speed both physical repairs and personal resilience after future storms.

"Stabilize? No way to stabilize when you're cut off from the world."

What This Means: Action Items for the First 72 Hours

The survey responses made one thing clear: farm recovery doesn't stall because farmers aren't prepared. It stalls when multiple critical systems fail at once. Nothing can restart without power, access to roads, or help.

Farmers didn't just lose electricity. They lost water, communication, and access to roads. They lost time. In many cases, they lost the chance to act quickly—because the tools, fuel, and people they needed weren't available when it mattered most.

Cascading Failures Require Bundled Solutions

Power loss shut down wells. Internet outages prevented insurance claims. Blocked roads delayed fuel, fencing repairs, and animal care. These weren't isolated issues. They stacked. To prevent the same domino effect in the next storm, support must be bundled: fuel with generators, chainsaws with labor, and emergency radios with contact lists.

Early Support is Physical and Local

Most stabilization tasks in the first 72 hours weren't technical. They were physical: removing trees, hauling water, restoring fences, and keeping animals safe. That means early funding should focus on tools, fuel, and people, not just information campaigns or reimbursement.

Redundancy is Resilience

The survey showed that when farms recovered quickly, it wasn't because they had everything. It was because they had options. A second way to power the well. A second way to reach someone. A second way out when the road was blocked.

Resilience didn't come from any one tool. It came from systems that didn't all fail at once. That kind of redundancy doesn't have to be expensive. It can look like a printed contact list. A shared fuel tank. A generator wired in advance. A neighbor with a radio.

It's not just about individual preparation. It's about building community systems that still work when cell towers go down and formal help is days away.

Building Community Resilience

Before the Storm

- Wire wells and barns for the right-size generators
- Identify and support neighborhood chainsaw crews
- Print one-page emergency sheets with key phone numbers and local radio channels
- Stock safe fuel storage and basic clearing tools
- Map livestock-heavy routes for road crews and utility teams

In the First 72 Hours

- Activate county-level fuel and generator share lists
- Dispatch volunteer chainsaw crews to open driveways, barns, and fence lines
- Distribute communication tools (CB/GMRS radios) where cell towers fail
- Prioritize contact with farmers in isolated areas who may not have signal or road access

To Build Long-Term Resilience

- Make livestock corridors and farm clusters a priority in local power restoration plans
- Fund shared equipment banks and cost-share for generator wiring and fencing repairs
- Invest in buried fiber, battery backups, and backup communication hubs
- Embed agriculture-specific needs in every county emergency plan; not as a footnote, but as infrastructure

Faster restoration of power, water, communication, and road access, and the tools to act before help arrives, will shorten recovery, reduce financial loss, and protect the mental health of Georgia's farmers in the next disaster.

Building Resilience: From Recovery to Readiness

Collaborative, Preventative, & Innovative Solutions: A resilient recovery hinges on three coordinated strategies, collaboration, prevention, and innovation, each of which dovetails with major grant programs. By pooling resources and grassroots response teams, wiring and infrastructure upgrades, and low-tech community solutions like fuel-shares and radio check-ins, stakeholders can dramatically cut downtime, costs, and stress. Aligning these efforts with USDA EQIP, FEMA mitigation, rural broadband and road grants, and private resilience funding creates a clear roadmap for building a storm-proof agricultural sector.

NEED	SHORT TERM	LONG TERM
Power Loss	Size and wire wells/barns for the right generators; teach safe on-farm fuel storage; cost-share wiring upgrades; set up county generator-lending pools.	Partner with EMCs to prioritize livestock farms for restoration; fund solar/battery backups; explore burying power/fiber lines where feasible.
Communication & Cell Service	Distribute printed emergency guides; promote two-way radio communications and satellite messengers; build phone trees and in-person check-in systems.	Support buried fiber lines in storm-prone zones; use broadband grants for rural upgrades; establish shared Wi-Fi/satellite hubs; advocate for tower battery backups.
Road Access & Mobility	Stock chainsaws, fuel, and basic clearing tools; create county equipment-share programs; activate neighbor debris-removal networks; map critical farm routes.	Invest in rural road improvements; prioritize ag roads in county clearance plans; fund local emergency equipment caches; embed farm-route priorities in Emergency Operation Plans..
Water Access	Audit generator readiness for wells and waterers; promote livestock water storage; teach safe pump-fuel storage; coordinate local water-hauling services.	Offer cost-share for well-pump wiring; grant solar/battery well systems; integrate water-dependence mapping into county planning; include water security in resilience grants.
Help, Labor & Equipment	Organize county volunteer crews (4-H/FFA, faith groups); set up equipment “banks” for skid steers, trailers, chainsaws; mutual-aid sign-up before storms.	Create cost-share or emergency grants for heavy equipment; partner with co-ops/Extension for ready-to-deploy storm kits; formalize community lending in county preparedness plans.

Scope of Findings & Future Research Needs

This survey was designed to capture the immediate experiences of farmers affected by Hurricane Helene. Like any rapid-response tool, it has limitations. Recognizing them helps us better understand what the results can, and cannot, tell us, and where future surveys could go further.

What This Survey Captured:

- Responses from 147 farmers across 44 counties
- Firsthand accounts of service loss, recovery challenges, and unmet needs
- Clear patterns of power loss, communication breakdowns, blocked roads, and recovery delays

What This Survey Did Not Capture:

- Demographic or operational details: (such as age, farm size, income, or primary commodities) As a result, we cannot draw conclusions about which types of farms were most affected or whether impacts varied by commodity or operation size.
- Commodity impact data: Some farmers mentioned poultry, pecans, or blueberries in open-ended responses, but these references were not consistently collected or categorized.
- While the geographic spread of responses was broad, participation was voluntary. The findings may reflect a higher response rate from farms that experienced more severe impacts or had stronger ties to outreach networks.
- Mental health and emotional toll: While many responses included language that pointed to exhaustion, isolation, and frustration, no direct questions about mental health or stress were asked.

Future Opportunities

Future surveys could deepen this work by:

- Collecting basic demographic and operation level information to help identify disproportionate impacts
- Asking commodity-specific questions to inform targeted recovery and crop insurance reform
- Incorporating mental health and stress-related indicators to support farmer well-being efforts
- Tracking generator readiness, fuel access, and communication backup tools across regions
- Mapping infrastructure and recovery timelines to compare how outages affect recovery outcomes over time

Each of these additions would build on the foundation this survey provides, and help communities, policymakers, and funders better prepare for future disasters.

A Note from the Authors

Rethinking Recovery: What if Low-Tech Solutions are the Right Solutions?

When disaster strikes, the instinct is often to innovate. In agriculture, this has led to growing interest in high-tech disaster tools like drones for damage assessments, real-time recovery dashboards, automated alerts, and online intake systems. These solutions are well-intentioned and increasingly well-funded.

But the voices in this survey raise an important question: Are we investing in the right tools for the conditions farmers actually face?

Many farmers who responded to this survey did not have weather radios. Most lost power, cell service, and internet for five days or more. Even the most sophisticated digital tools cannot function when the infrastructure that supports them is down. At the same time, we still lack a clear picture of what farmers had in place before the storm. We do not know what warnings reached them, how prepared they were, or what systems they relied on.

What we do know is that the supports farmers described as most helpful were not high-tech. They were practical, accessible, and rooted in community:

- A neighbor with a chainsaw
- A working phone line
- A place to get gas and feed
- A clear local contact who could answer questions

These are examples of **appropriate technology**. The term refers to tools and systems that are designed to fit the context in which they are used. Appropriate does not mean outdated or low-tech. It means a solution is usable, reliable, and maintainable under real-world conditions.

We are not suggesting that innovation should stop. We are suggesting that it should begin with a better understanding of what farmers need and what already works when systems are strained.

Before investing in new technologies, we need to ask:

- What tools and resources did farmers rely on before and after the storm?
- What low-cost or low-tech options proved most effective?
- Could simpler systems have met the need more reliably than newer ones?

A follow-up study focused on preparedness and recovery strategies could help answer these questions. It could clarify what is missing and what is already working. Most importantly, it could help ensure that future investments support solutions that are not just innovative, but appropriate, practical, and aligned with the realities of life on the farm during and after a disaster.

Acknowledgements

We extend our sincere thanks to the farmers, ranchers, and community members who took the time to complete the survey and share their experiences in the aftermath of Hurricane Helene. Your responses provided essential insights that will guide future recovery efforts and support services.

We are especially grateful to the team behind the Weathered But Strong effort, including those who supported outreach, data collection, analysis, and report development. Your work helped ensure that the needs of Georgia's agricultural communities are documented, understood, and addressed.

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This study was determined to be exempt by the Mercer University IRB (Exemption Category 4, determination date: July 29, 2025; IRB Reference No. H25-07023).

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