Dealing with

Pasture, Hay, Feed, and Livestock Losses

After Significant Weather Events

Jennifer J. Tucker, assistant professor
Dennis W. Hancock, professor and Extension forage specialist
Lawton Stewart, associate professor and Extension animal scientist
Jacob R. Segers, assistant professor and Extension animal scientist

Photo: Stuart Griffin, farm in Decatur County, Georgia

UNIVERSITY OF GEORGIA
EXTENSION

Significant weather events, such as a hurricane, tornado, or flash flood, can pose a threat to livestock and forage producers within the affected areas of Georgia. Often times, after said event, producers have lost pasture growth, hay stocks, feed supplies, and livestock. After a significant weather event, farmers will be assessing damage to fields, stock, and property for several weeks. The following are identified assistance programs that may be available to provide aid depending on the damage associated with the event. This circular is intended to provide recommendations to farmers who have been impacted by a significant weather event and have experienced damage to their pasture-based production systems.

Livestock death during the event

Any animals that died specifically as a result of a significant weather event need to be documented as soon as possible. To apply to the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) Livestock Indemnity Program (LIP), producers will need to provide photos, preferably with time stamps, and a written affidavit to document the losses.

Damage to hay bales

Pasture-based livestock producers need to assess and document the loss of hay as soon as it is safe to do so. If a producer experiences hay loss, they should take time-stamped photos of the bales while they are still on the property or in place where the bales are stored. Make sure to write down the number of bales, type and quality of hay, and the estimated weight or size (e.g., 4-by-4 feet, 5-by-5 feet). Contact the FSA office and submit this information as soon as possible. Eligible hay losses can be covered under **Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP)**. To qualify for this program, hay must have been baled before the damage occurred. The program will not cover hay that was cut and on the ground or hay that had not yet been harvested. The program also only covers hay purchased or cut to feed on the farm. It does not cover hay that was cut to sell commercially, so producers will likely need to document that they own livestock that they planned to feed the hay that was lost in the storm. ***Farmers must file a notice of crop loss to the FSA office within 30 days of the loss.***

In significant weather events that have heavy rain or flooding, it's important to determine the overall impact on your hay bales and the potential for feeding damaged hay. Flooded hay, or hay that has been totally or partially submerged in water, will likely be severely damaged and unusable as a feed source for livestock. Rotten, moldy hay will provide little useable forage and will potentially contain contaminants that could be hazardous to livestock. Extension specialists from North Carolina State University have documented that bales that have been submerged in 1 foot of water for up to one day or longer will have significant damage and will not be suitable to feed. However, hay on higher land that only experienced heavy rain or less than 1 foot of water might be safe to feed. Bales that have been in 1 foot of flood water for up to one day or longer should be counted as a loss. If bales were submerged in less than 1 foot of flood water, or heavily rained on but not submerged, it is likely that some portion of those bales can still be safely fed. Keep in mind that livestock should only be fed the dry parts of hay that were not damaged, and should not be forced to consume the wet and rotting portions of the bale. Hay that is deemed not suitable for feeding could be used for erosion control, composted, or burned for disposal.

Hay that was stored in barns and sustained flood damage should be removed immediately. Due to excessive moisture, it is likely that the hay will start to heat and spontaneous combustion is a real possibility. Again, remember to document all losses with time-stamped photos and a producer affidavit with the number of bales, the type and quality of hay, and the estimated weight or size of the bales as soon as possible after a significant weather event.

Damage to silage crops

After a significant weather event, it is not uncommon to have reports of damage to crops intended to be harvested for silage such as corn, sorghum, and other forage crops. A common issue is that severe wind damage has resulted in lodging of the crop to an extent that it is laying on the ground. Figure 1 depicts a field of severely lodged silage corn. There are very few options when attempting to salvage severely lodged silage crops. Most silage choppers are going to be unable to lift, cut, and chop this material. Even the large drum headers on self-propelled forage harvesters are likely to have great difficulty in harvesting crops that are lodged this severely. If a producer has such a chopper, it may be worth trying. Custom harvesters may not be willing to attempt such a harvest, at least not at standard harvest rates. Attempting to harvest such a severely lodged crop can result in an extremely slow harvest rate and the crop is likely to be very sandy. Custom harvesters will likely need to charge 50-100% more than normal to harvest such crops. Harvesting this crop as baled silage may be an option, but it will require the crop to be mowed and baled.

Figure 1. Severely lodged crop of tropical corn intended to be cut for silage. Note the 3-foot stick in the center of the photo. The crop is lodged to a height of approximately 1.5 feet. The crop is also damaged by wind, leaf disease, and soil contamination.
Photo: Ty Torrance, Agriculture and Natural Resources Extension agent in Grady County, Georgia

These processes are likely to cause lost yield and increased soil contamination. Moreover, extensive damage to the leaf from high winds, disease outbreaks (e.g., rust), and soil contamination may result in a silage crop that is too low in value to be worth harvesting. If such crops are ensiled, regardless of the method, it is highly recommended to use a silage inoculant, preferably a combination inoculant providing homofermentative and heterofermentative bacteria. Even with proper inoculation, such crops may ferment poorly, be less stable at feedout, and/or be damaged by secondary fermentations (e.g., clostridial fermentation) resulting in poisonous compounds in the silage. Inoculation increases the chances of successful fermentation. It is not clear whether severely lodged silage crops will be covered under federal assistance programs. Affected producers are encouraged to document the damages with time-stamped photos and to discuss options with the FSA office within 30 days of the loss.

Damage to pastures

In significant weather events with heavy rain or flooding, pastures can be extensively impacted. Warm season perennial pastures (bermudagrass and bahiagrass) can likely survive up to one week or longer under flood waters with minimal overall damage to the pasture. On the other hand, cool season pastures, namely tall fescue or winter annuals including wheat, rye, oats, and annual ryegrass will not survive more than a day or two completely submerged.

Depending on the timing of the weather event, producers in severe need of forage in the upcoming growing season will need to remove any excess residual forage from the pasture and overseed with an annual species. Setting cutters very low (1 to 2 inches) will be necessary, as much of the vegetation will likely be severely lodged. Care should be taken when mowing these areas to minimize the damage potential to equipment from storm debris remaining in the field. Removing forage residue is essential to decreasing competition for sunlight and nutrients for the newly seeded forage species. Grazing forage residues from flooded pastures may be possible, but be aware that the flood waters brought in dirt and other contaminants, and livestock may not readily eat the remaining forage.

In high wind and limited rain events, pastures will likely be contaminated with dirt, debris, and other contaminants. Livestock are likely to avoid much of these damaged crops, but there are some contaminants (e.g., downed limbs of black cherry and certain landscape plants) that may be potentially poisonous to livestock. Care should be taken to recognize and remove any such materials found in the pasture.

The ELAP program will cover losses to pasture up to 150 grazing days, but allowances will be unique to each significant weather event. At a minimum, producers should document the extent of their losses. Making notes on a map and keeping a log of lost grazing days is important. In flooding, producers should document where flood waters reached, when water receded, and proof that livestock had to be removed. If losses are allowed, reports of affected pasture acres will need to be provided to the FSA office.

Physical damage to fences and grazing lands

In significant weather events with high winds, perimeter fencing may sustain significant damage. Immediately after such events, containing livestock should be a top priority. Move livestock to pastures with the least amount of damage to the infrastructure and use temporary fencing technology to help contain them until permanent fencing can be replaced. Understand that temporary fencing technology is most successful with electricity, but multiple strands of unelectrified temporary tape or wire can help to maintain livestock for short periods of time. The success of unelectrified temporary fencing is greatest with animals already accustomed to temporary technology (i.e., electrical tape or wire). If solar fence chargers with batteries are available, set these items out in the days before an anticipated severe weather event to provide a level of electricity to the system.

The **Emergency Conservation Program (ECP)** may cover the removal of debris, repair of land, and repair of fences. This program is designed specifically to handle cleanup following a storm and the repair of storm damage. A field inspection by the FSA is recommended to determine eligibility for the program. It is critical that producers experiencing perimeter losses take good pictures and document the number of feet/miles of fence that were lost. Restorations of fence lines are paid by linear foot and there must be at least $2,000 worth of damage, or $500 for limited resource farmers. The ECP program is a cost share program through which the FSA can cover up to 75% of the cost.

Loss of feed

Lost feed that farmers had on hand (including commercial feed and harvested commodities) will be covered by the ELAP program. Farmers should document the amount and type of feed that was damaged by the storm. Flood-damaged feed, commodities, and crops are considered adulterated and need to be considered a loss.

When a significant weather event occurs, there will inevitably be questions about feeding alternatives given that some pastures are severely impacted, and some producers may have no hay to feed. Cows can be fed on concentrates and/or byproducts but need some forage or other fiber source (roughage) to maintain proper rumen function. Cows can be fed up to 17 pounds of supplemental feed, along with 5 pounds of hay. Any feeding program must meet the nutritional needs of the cattle being fed. For more information about hay replacement diets, please reference **UGA Cooperative Extension Temporary Publication 103, "Hay Replacement Rations for Cows and Early Weaned Calves."** To limit-feed hay, the hay should be put out in such a way that all animals can eat at the same time, such as dispersing square-baled hay or unrolling round bales. Sheep, goats, and horses may also be fed limited hay rations, but horses should receive a minimum of 10 pounds of hay per day, while sheep and goats should receive a minimum of 2 pounds of hay per day.

Some producers have feed on hand for other livestock species (e.g., poultry) that they may wish to give to their livestock, but ***be aware that many of these feeds should not be fed to grazing livestock*** unless the company manufacturing the feeds can attest that they do not contain ruminant meat and bone meal (for all species but horses), and that they do not contain any antibiotics or other drugs not approved for the livestock. Also, note that some feeds for cattle and horses may contain levels of copper that could be toxic to sheep and goats.

Maintaining the health of grazing livestock

It is difficult to assess how many cattle, horses, sheep, and goats were lost as a direct result of a storm, but regardless of the number, livestock develop chronic health problems over time. Death loss as a result of a storm needs to be documented with time-stamped photos and reported to the FSA as part of an application to the **Livestock Indemnity Program (LIP)**. Indemnity Program (LIP). Extension specialists from North Carolina State University have documented severe dermatitis in some animals in the weeks following a flooding event, which is thought to be a result of contact with the flood waters and, potentially, the ingestion of poisonous plants. Affected animals may lose body condition, have very weak offspring, and experience higher-than-normal sickness and death loss. To some extent, these conditions may also be the result of chronic malnutrition during the aftermath of the storm. Once it is possible, start feeding animals to regain the body condition the livestock may have lost in the aftermath of the storm. Pregnant animals will need a good supply of protein and energy for normal fetal development, so pay special attention to them.

Be aware that feeding levels for animals that have been short on feed for several days or a week need to be fed maintenance rations that are higher than those usually fed this time of year. Animals that have lost significant body condition due to feed restriction will need to gain weight significantly and are likely to need supplemental energy in addition to good quality hay or pasture. Make sure to provide a high quality mineral supplement and ensure that the livestock are eating it. These are always our recommendations going into winter, but in years of significant weather, it can be especially important given the elevated level of stress on the livestock. Remember that maintaining adequate nutrition is key for impacted animals to develop a high level of immunity to disease.

Water is an essential part of maintaining livestock health. Be sure to check water sources, especially if they are dependent on electricity, and consider alternative watering options. In the case of electric waterers (i.e., wells with electric pumps), using a generator can assist in pumping water to the livestock until electricity is restored. Note that if weather conditions are not conducive to heat stress and livestock have access to grazeable forage, the forage should be able to provide the needed water for a few days if water is unavailable.

Summary

Farmers experiencing losses of pasture growth, hay stocks, feed supplies, and livestock must document losses as soon after the event as possible and provide a Notice of Loss to their local FSA office. Most damage to forages (hay and pasture), feed, and infrastructure will be covered by one of the FSA programs available. Nutritional management of affected animals is critical to a positive outcome in the months following the event. For more help with the issues described in this publication, contact your local UGA Extension agent.

For more information on disaster assistance programs for farmers and ranchers, visit **farmers.gov/recover**.

This publication has been adapted from articles authored by Matt Poore, professor and Extension animal scientist at North Carolina State University, in response to Hurricane Florence in September 2018.