



Picking Up After the Storm On Pasture-Based Livestock Farms

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Managing storms is a part of any agricultural production system, and it is brought close to home each time we have a major storm in the US. This document has been useful in guiding producers and their advisors in past disasters and we hope that it is helpful for producers experiencing damage associated with Hurricane Florence.

Pasture-based beef, dairy, sheep and goat farmers need to be diligent in checking livestock, repairing damaged infrastructure, and looking for possible hazards in pastures caused by storm damage. Whether the storm was a severe thunderstorm, a hurricane, or a tornado, storm damage can cause acute injury and further damage to livestock if tending to animals and pastures is made a low priority in the recovery process. At a time when there often is damage to personal property including dwellings, outbuildings, and other non-livestock facilities, sometimes the livestock and the pastures take a lower priority. The health and well-being of livestock should be the second priority after the health and well being of farmers and their families.

Immediately after the storm subsides, producers should assess damage both to their infrastructure and their livestock. After they are sure friends and family are out of peril, they should check their pasture infrastructure to make sure that cattle or other livestock are in the pastures they were in before the storm, and that none of the animals are injured. If animals were injured by flying debris, the farmer should contact a veterinarian immediately if the injuries were severe. If conditions are so bad that livestock need to be evacuated, producers should contact their local extension agent, veterinarian, or emergency management officials.

Next, they should check to make sure waterers are operational and that fences are up and intact. If livestock are watered in a pressurized system and power is out, the producer should make haste to use a generator to restore power to the well system, or to provide another source of water (whether that be creating an emergency opening in the fence into a pond or stream, or by hauling water to the animals).

If hauling water, make sure the amount delivered to the animals is adequate. Adult lactating beef cows of average size need to be provided at least 25 gallons per day of fresh water, while dairy cattle

would require more. Young cattle will need about 2 gallons per 100 lbs of body weight. Mature sheep and goats will need 1-3 gallons per day (depending on their size). Cattle in particular may be dangerous when very thirsty. If cattle have been deprived of water for 24 hours or more, producers should take great care when filling water tanks or restoring water flow to small tanks. Cows are likely to fight aggressively to get to the water source, and the cattle or even the farmer may be injured in the struggle.

If electric fencing is in use, producers need to check the power level to make sure the system is operational, and if the power is out, they should restore emergency power to the fence energizer, or switch to a battery or solar operated energizer if one is available. If animals are well trained to electric fence then they will continue to respect the fence for several days after power is lost. The perimeter fence should be checked to make sure fallen trees or branches have not downed the fence. If fence damage has occurred, farmers should make every effort to get trees or branches off the fence and should make temporary repairs to keep livestock from wandering out of the pasture. More permanent repairs can be made later in the recovery process. If the system is electric, putting up temporary polywire and temporary posts may be the quickest way to restore the perimeter.

After assessing damage to the livestock and infrastructure, producers should assess other potential hazards caused by storm damage. Debris blown into pastures such as insulation and other building materials (common following tornadoes) may be eaten by livestock, leading to digestive upset and possibly death.

As producers check pasture infrastructure and scout for debris, they should also look for downed wild cherry tree limbs (or fallen wild cherry trees) and immediately either fence them away from livestock or remove them from pastures before livestock consume them. **PRUSSIC ACID POISONING FROM CONSUMING WILTED CHERRY LEAVES FOLLOWING STORM DAMAGE IS A VERY COMMON CAUSE OF DEATH IN CATTLE, SHEEP and GOATS.** This is an especially great hazard if pastures are short and livestock are hungry, because they may rapidly consume a large amount of the toxic material.

As you start to pick up after the storm make sure you do your best to document damage to your infrastructure and any livestock losses you might have experienced. It is recommended you document losses both with photos and written records. This information will be critical in working with insurance claims, and any disaster relief programs you may be eligible for.

Another potential poisoning that may result from late summer or fall storm damage is acorn poisoning. If there are oak trees in pastures and storms knock many of the green acorns down at one time, livestock may consume enough to be poisoned. As producers scout pastures for damage, they also should be aware of the potential for acorn poisoning. They should note which pastures have the highest levels of acorns, then take steps to keep animals away from them. As with cherry tree poisoning, the greatest risk is when livestock are hungry and pastures are grazed short.

Finally, farmers should make sure livestock have adequate forage or feed, and should check mineral feeders to ensure animals have access to dry mineral (and are consuming the targeted amount).

When farmers are hit by storm damage, there is much to think about and sometimes farmers neglect to follow normal management practices once they see that livestock are not injured and that infrastructure is intact. It is very important for animals to continue to have access to adequate forage and mineral supplement. If there is extensive damage to infrastructure, it may be most convenient to confine livestock to one pasture and feed hay until repairs can be made.

After Hurricane Floyd hit the east coast in 1999, livestock specialists and veterinarians received numerous reports of livestock with various health problems for several months after the storm. Investigations of these situations by local livestock agents did not reveal specific issues caused directly by the storm, but rather that some livestock were undernourished because farmers had so many other problems to deal with. In a great many cases, the livestock had no access to a mineral supplement and were suffering from deficiencies. Many mineral feeders had been blown all the way out of pastures, the mineral present was soaked and hardened so that livestock were not consuming it, or minerals had simply not been put out. Trace minerals (including zinc, copper and selenium) are deficient in many areas of the country and are important for the animal to be able to deal with stress and immune challenge.

Storms are an inevitable part of life, and managing damage means more than just cutting trees off fences and making sure livestock are not injured. Immediately following the storm the safety and health of you and your family comes first, but remember to continue to protect the safety and health of the animals you care for as part of your livelihood.