Winter Storm “Atlas”
Response & Recovery
October 2013

NIAA
Indianapolis, IN
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Forecasts

[Weather map showing various weather conditions and regions affected.]
The Storm

- October 3, 2013
- Rain 0.75 to 2.00 inches
- Temperature 30–40’s
- Wind 30–40 mph
Weather Conditions

**SNOWFALL THRU SATURDAY AM**

- **Butte**: 1-3" 
- **Billings**: 3-5" 
- **Yellowstone**: 8-12" 
- **Rapid City**: 24"+ 
- **Casper**: 8-12" 
- **Cheyenne**: 12-18" 
- **Steamboat Springs**: 5-8" 
- **Aspen**: 18-24"
Weather Conditions

- Snowfall 18 to 58 inches
- Winds
  - Sustained at 49 mph
  - Gusting from 60 to 70 mph
- Temperatures low to mid 30’s °F
  - Wind chill at 12 °F
- Visibility 1/8th of a mile or less
  - Sustained for hours
Western SD---Before
Impassable Roads and Immobilized People
Aftermath---on the ground
Initial Response--Ranchers
Contributing Circumstances
Factors working against the livestock

- Calves still on cows
- Wean late October on average
- Uncommonly warm temps—no winter coats
- Still on summer range
- Ground was not frozen

Causes of death

- Hypothermia, Exhaustion, Trampling, Drowning, Suffocation, etc.
Livestock Losses

- Voluntary Reporting by 300 producers
  - Cattle 22,000
  - Sheep 1400
  - Horses 300
  - Bison 40

- Rancher Relief Fund
  - 400 applicants
  - 43,000 head
State Level

- Assessment–CAP flights
- Technical support–guidance to counties and producers
- Regulations–suspended

Methods
  - Burn
  - Bury
  - Render
Carcass Disposal

- SD Animal Industry Board
- Counties
- Individual Producers
GUIDELINES FOR ON-FARM CARCASS DISPOSAL

SDCL 40-5-15 states carcasses must be disposed of in such a manner as the Board prescribes.

The South Dakota Animal Industry Board Regulation 12:68:03:05 Procedures for Disposal of Animal Carcasses states “Carcasses of animals which have died from noncommunicable causes shall be burned, buried to a depth of four feet, or disposed of by a licensed rendering plant within 36 hours.”

Environmental impact is a real concern with burial or burning. Some Good Management Practices are described for burial and burning of carcasses. These are recommendations, which when used with good judgement, can ensure the livestock carcasses and other associated wastes are disposed of responsibly in an environmentally-safe manner.

BURIAL

→ Call before you dig – SD One Call 1-800-781-7474 or Dial 811
→ Burial should not take place:
  • Within 1,000 feet of surface water or within the boundaries of a floodplain or a river.
  • Within a wetland.
  • Within 1,000 feet of an occupied dwelling (without permission of the owner).
  • Within 1,000 feet of any private or public drinking water well.
  • Within 200 feet of a road right-of-way or property boundary (without permission of adjacent property owner).
  • Where the primary subsurface material 20 feet below the bottom of the burial trench is primarily sand or gravel.
  • Where the depth to an aquifer is less than 20 feet from the bottom of the burial trench.
→ The burial site should be covered with at least four feet of soil to allow for compaction of soil to occur.
→ Maintenance of the burial site will be necessary to ensure water does not collect over the burial site. Additional soil cover will be necessary as compaction and subsidence occurs with carcass decay.

SITE SELECTION

→ Access to site in varying climate conditions.
→ Site should be aesthetically acceptable and not in close proximity to public roadways or viewing public.

BURNING – INCINERATION

→ Fuels such as tires, railroad ties, or treated wood are not allowed to fuel an open fire in South Dakota.
→ The burn should be conducted at a minimum of 1,000 feet from an occupied dwelling, propane tank, fuel tank, or other tank or container storing flammable substances.
→ Burning of carcasses should take place only during appropriate weather conditions.
→ The smoke plume should be monitored not to impact neighbors, or highway and airport traffic.
→ Local fire departments should be notified before carcass burning commences.

RENDERING

If rendering plant service is available in your area, schedule carcass removal within 36 hours of animal death.
Carcass Management Decision Cycle

1. Is a disposal option required? If yes, follow the decision cycle.
2. Are there any remaining mortalities? If yes, repeat this cycle for remaining mortalities.
   - If no, can vaccinations be used to reduce animal mortalities? If yes, consult The Red Book and implement.
   - If not, are mobile treatment technologies available? (See checklist) If yes, go to training module and implement.
3. Can animal be used for its intended purpose? If yes, send to slaughter.
   - If not, can off-site permitted landfill be used? (See checklist) If yes, go to training module and implement.
5. If not, is rendering available? (See checklist) If yes, go to training module and implement.
6. If not, can off-site incinerator be used? (See checklist) If yes, go to training module and implement.
7. If not, is site suitable for composting? (See checklist) If yes, go to training module and implement.
Counties--EMs

- Community pits
- Pick up and hauling service
- Equipment and operators

Butte County, South Dakota

Fall River County, South Dakota
Producer’s

- Rendering
- Burial pits
- Private contractors
- County Equipment
Recovery/Aid

- Industry Groups – RRF
- SD Department of Agriculture – Loans
- NRCS – EQUIP program
- SDSU Extension – education
- Others – Community meetings

**RANCHERS**

Impacted by the blizzard? Funds are available to help with immediate needs!
Need feed? Need fuel?
Need fence repairs? Need groceries?

Call 2-1-1

Donations can be made to:
Rancher Relief Fund
www.giveblackhills.org/27677 or
P.O. Box 231, Rapid City, SD 57709
Summary

“Presidential Disaster Declaration”–Shutdown
  ◦ 14 Counties
  ◦ 2 Native American Reservations

Economics

Neighbor helping Neighbor

Livestock Producers
Lessons learned for us

- Emergencies are local: Communicate with local authorities (2011)
- People want to help: Have an outlet/direction ($6 million)
- Communicate with other agencies and be honest with expectations
- Some expected assistance won’t be available due to other priorities or abilities
- Face to face relationships help get things done
The End

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