

Blizzards and Range Cattle Management Before, During, and After the Storm



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KEYWORDS

• Blizzard • Cattle • Calving • Weaning • Frostbite

KEY POINTS

- Severe winter storms and blizzards are infrequent but potentially devastating aspects of livestock production in temperate parts of the world.
- Mitigation practices that have protected cattle and improved recovery of lost cattle include animal identification, identification of shelter, and understanding behavior in a storm.
- Timing of the storm within the production cycle presents different challenges (eg, calving).
- The ability of the producer and emergency management to facilitate post-storm care and rescue can mitigate losses, but large numbers of animal casualties can be expected from major storms.
- Animal behavior may be altered after the storm and rescue and production practices may require accommodation for these concerns.

INTRODUCTION

For as long as cattle have been domesticated in temperate areas of the world, severe winter storms and blizzards have wreaked havoc on cattle herds. Reports from the 1800s and early 1900s describe losses of thousands of cattle during such storms and likely forced changes in cattle producers' "open range" methods of cattle rearing.^{1,2} Recently, the scope and devastation of blizzards on cattle herds have been no less significant, despite modern cattle management methods available to producers.^{3–5} An April, 2017, blizzard killed "thousands" of cattle in Colorado, Kansas, and Oklahoma,^{3,5} a blizzard in December 2015 was responsible for 12,000 dead cattle

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in the Texas Panhandle,⁶ and an early season South Dakota blizzard was blamed for killing 25,000 animals.⁴

Additionally, winter storms result in a myriad of health problems for the survivors in the herd, as well as management problems for cattle producers. Learning from the experiences of these recent events can be instructive as cattle producers, veterinarians, and emergency personnel prepare for, respond, and recover from these extreme weather events.

PREPARATIONS BEFORE A BLIZZARD

A blizzard warning may provide a very narrow window of opportunity, several days at most, for preparation before a storm. Certain routine management practices, implemented by cattle producers well in advance of a blizzard, can prove very valuable in mitigating the impact of severe winter weather on their cattle.

Animal Identification

Perhaps the one management procedure that has, in retrospect, benefited cattle producers the most after severe blizzards has been that of effective animal identification. In the aftermath of recent severe blizzards, cattle have been found long distances from their origin and, owing to their natural herd instincts, will often become commingled with other groups of cattle they may encounter during a storm. Those herds with existing suitable animal identification were more likely to recover the maximum number of strayed cattle. Sufficient animal identification is not something that can be easily implemented in the day or two before a winter storm. Cattle fitted with ear tags that are unique to the herd of origin and easily visualized, especially from a distance, can be more easily matched to a specific herd. Brands are also unique herd identifiers, but have limitations of legibility, especially on cattle in winter hair. Brands may also be difficult for community laypeople assisting with recovery efforts to identify and interpret.

Sheltering

Given enough lead time, producers can attempt to move animals closer to shelter and feed sources when possible. Windbreaks and the outside walls of buildings may provide some shelter from wind and driving snow. In severe and prolonged winter storms, however, past experience has shown that this measure will not always preclude animals from straying away from these sheltered areas during the storm.

With smaller groups of cattle and larger available sheds, producers may opt to shelter their cattle inside or allow them access to such shelter. The available space offered by buildings should be evaluated critically with regard to herd numbers. In particular, crowding of cow/calf pairs inside a building for prolonged periods can result in serious injuries to young calves if they are stepped on or crushed by the cows.⁷

Sheds or buildings should have adequate ventilation for the number of housed animals. Overheating and respiratory issues in animals of all ages, owing to insufficient ventilation, may be a sequela to prolonged periods of shelter in buildings. Open-front sheds with slot openings underneath the eaves on the back wall will provide for some airflow, improve ventilation, and may prevent excessive snow from piling up in front of the shed.⁷

Heavy snowfall in some recent blizzards has resulted in the collapse of such buildings.⁸ Heavy snowfall, especially when the snow is wet, may completely consume buildings housing cattle, resulting in suffocation. This possibility should be considered when making the difficult decision of whether to house cattle during a blizzard.

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