



## Proper Giraffe Care in Cold Weather

USDA's Animal Care program administers the Animal Welfare Act. This federal law and its associated regulations set the standards for humane care and treatment that must be provided to certain animals that are exhibited to the public, bred for commercial sale, transported in commerce or used in biomedical research. The regulations cover many aspects of animal welfare, including adequate housing.

Animals covered under the Animal Welfare Act need to be housed in a structurally sound facility that is in good repair and which meets the space requirements for the type of species being housed there. The animals must be protected from prey species and they must also be protected from extremes in weather and temperature. If the structure is an outdoor shelter, the animals must also be protected from excessive sunlight and adverse weather conditions.

Giraffes have special needs with respect to housing. They are highly susceptible to cold temperatures (below 50 degrees Fahrenheit) because they do not acclimate to the cold as effectively as most other mammals. Once a giraffe has become chilled, it is difficult for the animal to regain its proper body temperature without an external heat source. Without such exogenous heat, a giraffe's immune system becomes compromised and it may become sick or die. Calves and juveniles are at the greatest risk of hypothermia.

Temperature, health, diet, stress, age and body condition all factor into a giraffe's ability to survive cold weather. There have been many giraffe deaths caused in part or entirely by cold weather conditions. Giraffes housed in areas where temperatures drop below 50 degrees have the best chance for survival if they have access to a heated barn.

Inside giraffe barns, the optimal ambient temperature near the giraffe's body is 65 degrees or higher. It is best to measure this temperature at the mid-chest level of the giraffe. Heaters located at the top of a barn will certainly warm a giraffe's head but may not properly warm its body. Barns with heated floors are optimal, as the heat will rise and warm the animal's legs and body. By way of example, one giraffe became hypothermic and died inside a heated, albeit drafty, barn where the upper level of the barn was nearly 70 degrees but the lower area was only 45 degrees.

Taking into account the many factors mentioned in this tech note, along with current best practices and scientific literature, USDA Animal Care recommends that giraffes be kept indoors during cold and inclement weather.

### Additional Information

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