

3-Days Residential Programme
on
**Extreme Heat Preparedness for Animals:
Orientation on Caring for Animals during Extreme Heat
and Risk Reduction, Resilience Building**

17-19 April 2023

Organized by GIDM



Collaborating agencies



**Directorate of
Animal Husbandry**



Kamdhenu University

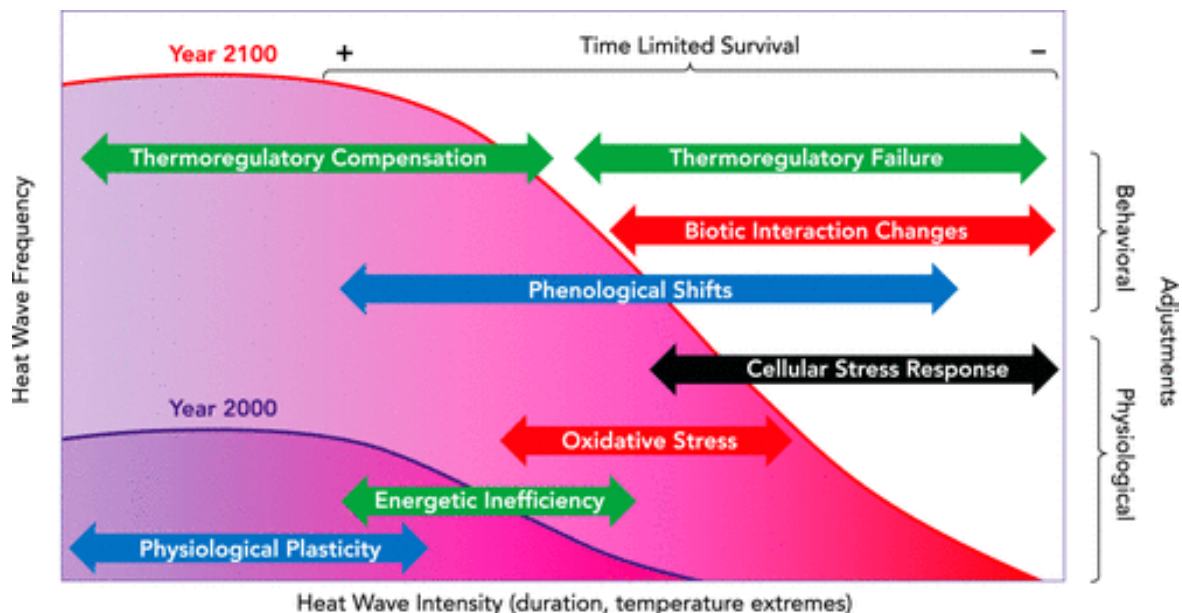
A. Background

Animals in terrestrial and marine ecosystems have experienced increased mortality during heat waves of the early 21st century (*Stillman, J.H. 2019*). Summer heat-wave mortality of animal populations is making summer a season of stress and survival, altering populations and ecosystems. As **climate change** continues, heat waves are going to intensify and become the strong, although stochastic, impact of climate change on life.

Extreme Heat affect human as well as animals' activities. Managing animals in high temperatures require good forward planning. Keeping an eye on the weather forecasts, and developing a plan for days of high to extreme temperature is essential in ensuring that **animals** will have sufficient **shade** and **water** on those very hot days. **Extreme heat** causes significant **stress** for all animals.

It is the responsibility of owners or people in charge of animals to be well prepared for heat events to ensure the welfare of their animals is catered for. This includes forward **planning** of farm infrastructure to provide shaded areas with good ventilation to maximize **heat loss**. Animals need to be checked regularly throughout the day for signs of heat stress, along with water points to ensure animals have access to ample cool water. Holding and processing areas for livestock should have shaded areas available. The use of water sprinklers can be useful to cool some species such as cattle.

Research has shown that the movement or handling of cattle during hot weather can increase their body temperature by 0.5 to 3.5° C. Increased body temperature or heat stress will cause production



losses in livestock and impact on their ability to maintain normal function. Animals should only be **transported** during the cooler hours of the day. If it is necessary to stop, park the vehicle in the shade and at right angles to the wind direction to improve wind flow between animals during hot weather. Duration of stops should be kept to a minimum to avoid the build-up of heat while the vehicle is stationary. **Behavioral thermoregulation** varies across similar types of animals, along with species-specific variation in other traits, as has been demonstrated in birds.

Feed digestion causes heat production which will contribute to the animals heat load. Provide animals with high-quality feed to maintain nutrient intake without excessive heat production, and feed out in the early morning or evening when temperatures are lower.

The Sendai Framework for Disaster Risk Reduction 2015-2030 emphasizes that DRR efforts must first and foremost address the **risks** faced by the poorest and those most vulnerable to disasters. To do this, **priorities** for action of the *Sendai Framework* recommends to:

*Strengthen the **protection** of livelihoods and productive assets, including livestock, working animals, tools and seeds* (Para 30.p); and *Strengthen and promote **collaboration** and **capacity-building** for the protection of productive assets, including livestock, working animals, tools and seeds.* (Para 31.f)

Keeping in view of the subject, GIDM-DAH-KU(VERU) has planned to organize a Webinar on “**Orientation Program on Caring for Animals during Extreme Heat**” on **12-April-2022** using its online platform.

One can’t act on something until one is not aware of it. And therefore, it is necessary to be aware of extreme heat and its risk in the first place to take any measures to adapt to it and to mitigate its harm. Intending this, GIDM has developed the training modules on the subject “**Extreme Heat Prevention and Management**” and “**Risk Management and Animal Care – Building Resilience for Livestock and Wildlife**” to help the learners for protecting and caring animals from extreme heat during summers.

B. Objectives

This training will work as the guide for the trainer as well as learners to understand the basics of heat waves, the key areas necessary for planning the prevention and management of extreme heat to minimize impacts on the animals. Under this, the following specific objectives will be pursued -

- Understanding Basics of Extreme Heat and Heat Waves;
- Disaster Risk of Extreme Heat and Impact on Animals;
- Planning and Management of Animal Care during Extreme Heat;
- Action Plan and future Strategies.

Key Words: First Responders, Communities, Risk Management, Animals

C. Targeted Participants

The target group for this program will be the L2 and L3 level of officials working with DAH, Faculties/Scientists/Research Scholars working with Agriculture Universities, Veterinarians/Para-veterinarians working with District/Taluka/Gram Panchayat level as well as Zoological Parks Veterinary Doctors working with Pharmaceutical Companies/Trust/NGOs/Animal Welfare Organizations.

References

1. Disaster Management Plan 2016, Dept. of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, GoI
2. GIDM Training Module on DRM for Livestock
3. GIDM Training Module on Understanding Disaster Risk Management (*Gujarati and English version*)
4. All Presentations and Scholarly Articles
www.gidm.gujarat.gov.in