

# **HEAT WAVE MANAGEMENT**

**Department of Animal Husbandry & Dairying**

**Ministry of Fisheries, Animal Husbandry and Dairying**

**Government of India**

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# Introduction

- Animal Husbandry is the State subject, DAHD has been supplementing the efforts of the State Governments in VARIOUS sectors through various schemes of the Department **including vaccination and disease control.**
- States/UTs advised to set up Disaster Management Plan as per local risk, animal profile, disease epidemiology, resources animal susceptibility to different types of disaster etc.
- DMP/Guidelines circulated to all the states/UT

# Purpose and Scope

- To Provide rapid assistance to states
- To protect livestock assets
- To rebuild the livestock assets
- Awareness in veterinary Care
- Management and care during Natural disasters (Heat Wave/Draught, Monsoon/Flood, Cold wave)
- Disaster Resilient Infrastructure
- Technical support at ground level throughfield visits
- Support through MVUs
- ONE HEALTH initiatives and joint operationhs

# Risk assessment & Measures

- Assess available manpower (Veterinary doctors, Para veterinarian)
- Review preparedness (Veterinary hospitals, mobile units etc.)
- Adequate storage of Medicine, Vaccines, Surgical and Veterinary Appliances, Diagnostics, Personal Protective Equipment (PPEs), life saving equipment's etc.
- Logistical requirements (fuels, lighting equipment, tents, sheds, bedding, trolleys, and material for sanitation, storage of feed and fodder and water)
- Adequate disease diagnostic and control measures
- Assessment of existing animal handling search and rescue capacity at State and District levels
- **Liaison with other agency (Health, Forest, Agriculture, Transport, Power, Local authorities etc)**
- **Mock Drills with SDMA**

# Measures

- Animal Camps and awareness programmes
  - Rehabilitation of animals and identification of safe location
  - Feed and Fodder stocking and Supply
  - Identification of forage grasses, legumes, shrubs and trees
  - Grazing land improvement
  - Capacity building and mock exercise
  - Emergency channels and contact points
  - Vaccination and emergency medicine
  - Disposal of animal waste and carcass (National Guidelines)
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- Pash palak Calender (month wise veterinary care, management and good practices)
  - Declaration of Veterinary as Essential service during CoVID

# Heat Management in Animal Sector

- **Environmental temperature:** Temperature Beyond (24°-26°C for Exotic and crossbred cattle and 33°C for Zebu cattle and 36°C for buffaloes)
- **Heat Stress:** Extreme hot humid/hot dry weather, **Symptoms:** Like panting, irregular pulse rate, dull skin, reduced feed intake, and increased water intake, hyperthermia (106 – 108°F), dehydration, salivation.
- **Economic importance:**  
Loss of productivity (Milk), reduced breeding efficiency, vaccination failures, co-morbidity, low immunity-diseases and loss of life in extreme cases

# Animals at High Risk

- Young animals
- Dark colored animals
- Sick animals with history of various disease
- Pigs
- Newly shorn sheep
- Lactating and pregnant animals
- Heavy and working animals
- Underfed animals
- Un vaccinated animals

# Heat Disorders

- **Sunburn** (Pigs and newly shorn Sheep more prone)  
Skin redness, possible swelling, blisters, fever  
Give water bath / shower, apply sterile dressing on blisters.
  - **Heat Cramps**  
Spasms usually in leg and abdominal muscles with sweating  
Move the animal to cool or shaded place and massage the spasm area.
  - **Heat Exhaustion / stress**  
Heavy sweating, weakness, skin cold and pale, panting, dry nose, increased respiration, normal temperature possible.  
Keep the animal in cool shed under cooler / fan with drinking water availability.  
Decrease stocking rates of the animals
  - **Heat stroke** (lactating animals more prone)  
High body temperature with hot, dry skin and rapid, strong pulse.  
Move the animal in cooler environment with cool bath or sponging to reduce body temperature. Arrange veterinary care at the earliest.
- **Arrangement of mineral mixtures, life saving drugs, fluids and other medicines and equipments in veterinary hospitals at all times**
  - **Activation of mobile veterinary units**



# Draught like conditions

- **Affects overall animal health**
- **Scarcity of feed/ fodder and water and nutritious grasses**
- **Trigger the disease in animals**
- **Physical accidents, abnormal eating habits and predisposition to infectious disease**
- **The free ranging animals may ingest large quantities of sand and dirt which may digestive problems and food poisoning.**
- **Draught conditions can amplify the effects of parasitic diseases**
- **Lower the immunity and put animal under stress and the sub clinical infections may become clinical and may result in animal death.**

# DOs

- Keep update on local weather forecast.
- Ensure mixing of salt mixture / electrolytes with feed and water/balance feed
- Milking of lactating cows may be delayed by an hour or more in the evening.
- Use sprinklers and shade in holding yards
- Drought animals should be allowed to rest in a shad from 12 noon to 4 pm.
- Water should be provided cool water at least four times during the day.
- Heat stressed horses can be cooled down by cool water from feet and moving up

# DOs

- Pregnant animal (more than 6 months) should be given additional feed.
- Pigs should have sufficient water and mud holes areas.
- Bird's shades should have temperature control system. Outdoor poultry houses should be in shaded area and have good air flow.
- Pets should be left at home as much as possible
- Materials like shade cloth, corrugated iron or timber, aluminum or galvanized steel should be used for animal's shelters and roofs.
- The dead animal burials areas should be away from water bodies, public area and must be well protected with display board.

# DONT's

- Do not leave animals tied in the sun
- Pets should not be left in parked vehicle
- Avoid using animals for work from 12 noon to 4 pm.
- Animals should not have to walk to far for drinking water.
- Avoid large number / overcrowding of animals in animal shade
- Animals shades and processing areas for animals should not be under direct sun
- Animal movement/handling should be avoided during hot hours.
- Milking should be avoided in the hot hours.
- Animals should not have to walk too far for the water.
- The carcasses of dead animals should not be discarded on the regular grazing routes of the animals.

# Way Forward

- More cooperation between sectors
- Liaison of State AHDs with SDRF
- Training to AHD officials by SDRF
- Involvement of  
local youths, NGOs, Pradhans, school teachers,  
children with regular awareness
- Creation of RRTs
- Use of MVUs
- Vaccination and Veterinary Care
- Zoonosis/One Health

**JAI HIND**