बिहार सरकार
डेयरी, मत्स्य एवं पशु संसाधन विभाग,
पशुपालन निदेशालय
बी0भी0सी0 कैम्पस, पटना–14

बिहार सरकार

पत्रांक– 14 आपदा 02/2024 ..... दिनांक– ...../...../2026

प्रेषक,

डॉ0 सुनील कुमार ठाकुर,
संयुक्त निदेशक (पशु स्वा0)।

सेवा में,

सभी जिला पशुपालन पदाधिकारी,
बिहार।

विषय :– **Advisory for Livestock on event of Heat Wave Situation के संबंध में।**

महाशय,

उपर्युक्त विषयक पशुधन अधिकारी, भारत सरकार, पशुपालन और डेयरी विभाग, कृषि भवन, नई दिल्ली के **No. K-11053/47/2024-AHC** के ई मेल दिनांक–23.03.2026 के पत्र की छायाप्रति संलग्न करते हुये कहना है कि पत्र में वर्णित दिशा–निर्देश के आलोक में जमीनी स्तर पर प्रभावी एवं कार्यान्वयन सुनिश्चित करने हेतु अपने अपने क्षेत्रांतर्गत पशुपालकों तक जानकारी प्रसारित कराना सुनिश्चित करें।

इसे अतिआवश्यक समझा जाय।

अनु0–यथोक्त।

विश्वासभाजन

ह0/–

संयुक्त निदेशक (पशु स्वा0)।

ज्ञापांक :– 14 आपदा 02/2024...1486 (1)/ पटना–15, दिनांक ...15.../04.../2026

प्रतिलिपिः– विभागीय आई0 टी0 मैनेजर को विभागीय वेवसाईट पर अपलोड करने हेतु प्रेषित।

15/4/26

संयुक्त निदेशक (पशु स्वा0)।

दूरभाष संख्या: 0612-2215962 ई-मेल: dirahd-bih@nic.in वेबसाइट: state.bihar.gov.in/ahd

Heat wave advisory for Livestock for upcoming summers . Reg-

Sakshi Bhadouriya < sakshi.bhadouriya@dahd.nic.in >

Mon, 23 Mar 2026 5:25:46 PM +0530

To "Naveen Kuttanda"<dir-ah@and.nic.in>,"dirahvsandaman"<dirahvsandaman@gmail.com>,"ap ahdir" <ap.ahdir@gmail.com>,"ahvddarunachal"<ahvddarunachal@gmail.com>,"assamvety" <assamvety@gmail.com>,"Ujjwal Kumar Singh"<dirahd-bih@nic.in>,"lrspatna" <lrspatna@gmail.com>,"Priyanka Shukla"<dirvet.cg@nic.in>,"mahavirsarsiha" <mahavirsarsiha@gmail.com>,"Shri Shivam Teotia"<dept-htedu-dd@daman.nic.in>,"directorahdelhigov"<directorahdelhigov@gmail.com>,"Dr. Nitin S. Naik DirectorAHVS Goa"<dir-ahvs.goa@nic.in>,"dir-anml"<dir-anml@gujarat.gov.in>,"Dr. Prem Singh" <dg.ahd@hry.nic.in>,"Dr Sanjeev Dhiman"<dir-ah-hp@nic.in>,"director"<director@jkahd.net>,"director" <director@jkanimalhusbandry.net>,"dir-ahjhr"<dir-ahjhr@nic.in>,"commissionerahvs" <commissionerahvs@gmail.com>,"dirahvs"<dirahvs@gmail.com>,"D M DAS"<dir-ah@nic.in>,"Director AH"<directorah.ker@nic.in>,"directorashladakh"<directorashladakh@gmail.com>,"adpoultrykvt" <adpoultrykvt@gmail.com>,"Director Animal Husbandry M P"<dirveterinary@mp.gov.in>,"cahpune" <cahpune@gmail.com>,"cah diseasecontrol"<cah.diseasecontrol@gmail.com>,"vety manipur" <vety.manipur@gmail.com>,"meghvety01"<meghvety01@gmail.com>,"directorvetymiz" <directorvetymiz@gmail.com>,"dirahvsngl"<dirahvsngl@gmail.com>,"dahvsorissa" <dahvsorissa@gmail.com>,"The Director Animal Husbandry Department Pondicherry" <ahd.pon@nic.in>,"dahpunjab"<dahpunjab@gmail.com>,"director ahd" <director.ahd@rajasthan.gov.in>,"sikkimldb"<sikkimldb@gmail.com>,"zeruiahbhutia" <zeruiahbhutia@gmail.com>,"anh.tn"<anh.tn@nic.in>,"dirahdtg"<dirahdtg@gmail.com>,"ardd tripura" <ardd.tripura@gmail.com>,"Dr. Mempal Singh"<dir-ah.up@nic.in>,"directorahd" <directorahd@yahoo.com>,"dirahuk"<dirahuk@gmail.com>,"Director AH Uttarakhand"<dir-ah-uk@gov.in>,"dahvsard-wb"<dahvs.ard-wb@nic.in>

Cc "Harcharan Singh"<harcharan.singh17@gov.in>,"Vijay KumarTeotia JOINT COMMISSIONER" <vijay.teotia@gov.in>,"Sudam Bag"<sudam.bag@dahd.nic.in>

Sir/Madam,

Please find attached the *Heat Wave Advisory* for advance preparedness against Heat waves. States are requested to take necessary action and formulate/update their respective State Action Plans accordingly.

Kindly find the same enclosed for your reference.

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सादर,

डॉ. साक्षी भदौरिया/ Dr. Sakshi Bhadouriya
पशुधन अधिकारी/ Livestock officer
भारत सरकार / Government of India
पशुपालन और डेयरी विभाग / Department of Animal Husbandry & Dairying
कृषि भवन, नई दिल्ली- 110001 / Krishi Bhawan, New Delhi-110001

24-03-2026

1 Attachment(s)

Heat wave advisory .pdf
153.3 KB

7. Animals with high metabolic rates (example, high milk yielders) and low sweaters (pig, dogs) are more susceptible.

Signs of heat stress include but are not limited to:

- ***Physical Signs:*** Lying outstretched, Dry nose, Weakness, Muscle tremors, Salivation, Collapse, Swollen Abdomen
- ***General Behaviour and Activity Level:*** Reduction in movement, Change in posture, Hysteria, Increased drinking, Lack of appetite
- ***Respiratory and Breathing Changes:*** Panting, Rapid Panting with tongue out, Open beak panting in case of poultry
- ***Temperature Regulation:*** Continual shade seeking, Prolonged time at water source, Holding wings out in case of poultry
- ***Production:*** Decrease in Milk Production

The heat disorders with symptoms and first Aid are as under:

Heat Disorder	Symptoms	First Aid
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) due to severe and/or prolonged heat exposure	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.

Preparedness and Response by State AHD

Awareness and Veterinary Care:

State shall ensure that the animal owners should be made aware of adverse effects of heat wave and wide publicity should be given regarding the preventive measures, Do's and Dont's during this period. State AHD should continue efforts on sensitization and capacity building of veterinary Officers, Para-veterinarians, staff/workers on heat related illness, its early recognition and management.

K-11053/47/2024-AHC
Government of India
Ministry of Fisheries Animal Husbandry & Dairying
Department of Animal Husbandry and Dairying

Advisory for Livestock on event of Heat Wave Situation

Introduction

Heat wave is a condition of atmospheric temperature that leads to physiological stress, which sometimes can claim animal life. The temperature at a grid point may be 3° C or more than the normal temperature consecutively for 3 days or more. The temperature of any place if continues to be more than 45° C consecutively for two days or more, than it is called a heat wave condition.

Various mathematical formulas have been developed by researchers and research institutes to assess the severity of heat stress in livestock. These formulas typically assign a score on a 100-point scale, which is then compared using a standard Temperature Humidity Index (THI) chart. The THI chart helps evaluate the stress imposed by prevailing climatic conditions on livestock over time. One commonly used formula for quantifying heat stress in farm animals is the standard THI formula:

$$THI = db°F - \{(0.55 - 0.55RH) \times (db°F - 58)\}$$

Here, THI represents the Temperature Humidity Index, db°F denotes the dry bulb temperature in Fahrenheit, and RH stands for relative humidity (expressed as a decimal). The THI serves as a guide to measure heat stress by amalgamating the effects of temperature and humidity into a single value. Heat stress severity is categorized into three levels based on THI:

Livestock alert: 75-78 degrees Fahrenheit (23.9-25.6 degrees Celsius)
Livestock danger: 79-83 degrees Fahrenheit (26.1-28.3 degrees Celsius)
Livestock emergency: 84+ degrees Fahrenheit (28.9+ degrees Celsius)

Prevention and Acclimatization

Preventing heat-related illnesses in animals is paramount and largely achievable. The crucial intervention involves implementing appropriate prevention strategies and possessing a comprehensive understanding of effective preventive measures, first aid, and veterinary support.

Animals transitioning from cooler to hotter climates should be restricted from venturing outside during peak heat hours. It is essential to ensure they have access to abundant water. Acclimatization can be facilitated by gradually exposing them to the hot environment during heat waves.

Animals at High Risk:

1. Young animals
2. Dark coloured animals
3. Sick animals with history of respiratory, kidney and liver diseases
4. Newly shorn sheep
5. Pregnant and Lactating animals
6. Heavy animals

- ***Transportation:*** Avoid leaving animals in vehicles or trailers without adequate ventilation, and keep pet shelters out of direct sunlight. Refrain from transporting animals and birds in the heat of the day. Instead, unload them and let them rest in a shaded area with access to water and food.

Animal Health and Welfare:

- ***Hair removal:*** Consider removing excess hair or wool to help animals stay cool.
- ***Heat stress caution:*** Be cautious with breeds susceptible to heat stress and avoid vaccinations or deworming during the hottest hours of the day.
- ***Bathing:*** Bathe animals at least once a day, preferably during cooler period
- ***Special care:*** extra care with young, pregnant, or lactating animals, and monitor them closely for signs of heat stress.

Housing Management:

- ***Ventilation:*** Keep animal shed doors and windows open for proper ventilation. In peak sunny hours, tie wet gunny bags in the animal shed. These bags act as natural evaporative coolers, providing relief from the heat.
- ***Overcrowding:*** Avoid overcrowding in animal housing and increase floor space during summer if possible.
- ***Roof & Insulation:*** Thatching the roof with materials like paddy straw etc, painting the roof with white paint, or providing false ceiling insulation will help provide a cooler environment.
- ***Cooling Systems:*** Misting/Fogging in the animal's surroundings with water for at least thrice an hour, combined with a fan, is beneficial in hot, dry conditions. An automated mister or fogger with mini pumps and cyclic timers is recommended. When using foggers, ensure adequate ventilation to prevent an increase in Temperature-Humidity Index (THI).
- ***Wallowing:*** Arrangements for wallowing be kept for habituated species

Feeding Management:

- Placing feed and waterers in cool/shaded places
- ***High-Quality Nutritional Feed:*** Alongside green fodder, ensure that animals receive high-quality feed. This includes balanced concentrates, grains, and supplements. Proper nutrition supports their immune system and resilience against heat stress.
- ***Split Feeding:*** Encourage split feeding by increasing the frequency of feeding and Shift feeding times to cooler parts of the day and opt for high-quality feed to avoid excessive metabolic heat.
- ***Energy feeding:*** High energy feeding must be completed well with coolest part of the day
- ***Grazing Time:*** Adjust grazing hours to early mornings and late evenings. During these cooler periods, animals can forage without excessive heat exposure.
- ***Electrolytes & Nutrition:*** Incorporate electrolytes into the animals' diet and provide nutrient-dense feed.
- ***Drinking water:*** Use non-metallic water containers and provide clean and cold (but not chilled) drinking water twice the normal requirement,

Veterinary infrastructure, procedures and expertise need to be arranged/upgraded which may also include:

- State AHD shall maintain close coordination with the Meteorological Department (IMD) to relay daily heat information to local veterinary hospitals and dispensaries for proactive preparedness and response.
- Conducting mock drills in collaboration with SDRF to develop effective operational strategies tailored to local conditions and needs.
- Ensuring adequate deployment of veterinarians and paravets in heat-prone areas.
- Stocking veterinary hospitals with essential supplies such as mineral mixtures, life-saving drugs, fluids, and equipment at all times.
- Activating mobile veterinary units for swift response.
- Conducting awareness programs on animal and heat management.
- Identifying disposal sites for deceased animals.
- Collaborating with other stakeholders/agencies for advanced preparedness related to transportation of animals/feed and fodder, power supply, water supply, sanitation, carcass disposal, disinfection, and zoonotic diseases.
- Exploring energy conservation measures and strategies to reduce indoor heat, such as cool/green roofs, window shades, rainwater harvesting, and recycling plants in veterinary hospitals and animal shelters.
- Administering deworming and vaccinations against Haemorrhagic Septicaemia, Enterotoxaemia, and Black Quarter to animals before the onset of heat waves.
- Ensuring nutritional support for animal owners, including Vitamin A and area-specific mineral mixtures.

Animal Care Guidelines:

- ***Shelter:*** Ensure animals have access to shaded or sheltered areas to keep cool during hot conditions. This helps mitigate the impacts of heat stress and can reduce production losses.
- ***Resting:*** Provide shaded and airy spots for animals to rest from 11 am to 4 pm.
- ***Drinking Water Supply:*** Regularly check water supplies for livestock to ensure they are plentiful, fresh, and free from contamination.
- ***Temporary Shade:*** Arrange temporary shaded areas with water access for animals during the peak heat of the day if keeping them indoors is not feasible.
- ***Ventilation & Cooling:*** Implement ventilation strategies and utilize sprinklers in areas like milking sheds for additional cooling.
- ***Exercise & Care:*** Limit intense exercise for animals during hot weather and always provide them with shade and water. Schedule activities for draught, pack, and sports animals during the cooler times of the day. Make sure they are well-fed and hydrated beforehand. Offer them breaks with access to room temperature drinking water and some greens but refrain from giving them concentrated feeds.
- ***Cooling:*** Use cooling mats and avoid confining animals in areas with minimal shade or airflow.

- *Green fodder:* Provide sufficient green fodder. Green fodder provides essential nutrients, hydration, and helps maintain their overall health. It's rich in moisture and vitamins, aiding in temperature regulation.
- *Sowing:* Animal rearers should sow moong, maize, perennial grass, cowpea, barbati etc. in the month of March, April for green fodder in the summer season.
- *Fodder harvesting:* Green fodder should be harvested at 50% flowering stage. Surplus green fodder should be conserved in the form of 'hay' or 'silage' for use during summers or when green fodder is scarce.
- *Minerals & Salts:* Add mineral mixture and common salt to the diet.

Awareness Creation:

- *Awareness:* Conduct awareness campaigns for farmers on managing heat stress in animals through community meetings, training sessions, and various media channels.
- *Public Support:* Encourage the public to place wide-mouthed water containers outside their homes for thirsty animals and birds.

Emergency Measures:

- *Vigilance:* Be vigilant for symptoms of heat stress in animals and promptly move them to shaded, cooler spots if symptoms appear.
- *Veterinary Care:* Seek professional veterinary assistance if there is no improvement in the animal's condition.
- *Veterinary Supplies:* Ensure veterinary facilities have ample supplies of essential medications, fluids, and electrolytes, and prepare mobile veterinary units to deliver supplies as needed.
- *External Support:* Approach district authorities, NGOs, and animal welfare groups for support in establishing temporary water stations and alleviating the impact of heat on animals.