

**Advisory to States for taking preparatory action for Heat Wave season–2020**

**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 more. The temperature of any place if continues to be more than 45° C consecutively for two days, than it is called a heat wave condition. The effects of heat wave on animals include dehydration, decrease in body salts and appetite, drop in production etc.

**Prevention and Acclimatization:**

Heat – related illness is largely avoidable. The most crucial point of intervention concerns the use of appropriate prevention strategies and knowledge of effective prevention, first-aid and veterinary support.

Animal coming from cooler environment / place to a hot climate they should not be allowed to move outside during hot hours and water should be provided in plenty to the animal. Acclimatization is achieved by gradual exposure to the hot environment during heat wave.

**Animals at High Risk:**

1. Young animals
2. Dark colored animals
3. Sick animals with history of respiratory disease
4. Pigs
5. Newly shorn sheep
6. Lactating animals
7. Heavy animals

**Identification and first Aid of heat disorders in animals:**

There are many signs of heat stress which include:

- Panting
- Increased respiration rate
- Increased water intake
- Loss of appetite
- Listless / lethargy
- Increased salivation
- Dry nose (Dehydration)

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

<b>Heat Disorder</b>	<b>Symptoms</b>	<b>First Aid</b>
<b>Sunburn</b> (Pigs and newly shorn Sheep more prone)	Skin redness, possible swelling, blisters, fever	Give water bath / shower, apply sterile dressing on blisters.
<b>Heat Cramps</b>	Spasms usually in leg and abdominal muscles with sweating	Move the animal to cool or shaded place and massage the spasm area.
<b>Heat Exhaustion / stress</b>	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
<b>Heat stroke</b> (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.

#### **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.

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

- Deployment of veterinarians and paravets in proper strength in heat prone areas
- Arrangement of mineral mixtures, life saving drugs, fluids and other medicines and equipments in veterinary hospitals at all times
- Activation of mobile veterinary units
- Conducting awareness programmes in respect of animal and heat management
- Identifying the disposal sites for dead animals
- Liaison with other stakeholders/agencies wherever required

#### **Do's and Dont's:**

To minimize the impact of heat wave and to prevent serious ailment or death, the following measures are useful:

## Do's

- Keep update on local weather forecast.
- Adequate availability of feed and fodder during periods of shortage.
- Ensure mixing of salt mixture / electrolytes with feed and water and provide balance feed especially to dairy animals.
- Milking of lactating cows may be delayed by an hour or more in the evening to get good milk production.
- Use sprinklers and shade in holding yards to reduce fly irritation and to maintain milk production.
- Drought animals should be allowed to rest in a shaded and airy spot from 12 noon to 4 pm.
- The drinking troughs should be kept clean and animals should be provided cool water at least four times during the day.
- The location of water should be familiar to animals days before extreme heat arrives.
- Heat stressed horses can be cooled down by hosing with cool water starting from the feet and moving up slowly.
- 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.