

# Beat the Heat

Looking for Low Operating Cost, Better Results, Reduced Heat Stress ?????

Presenting

## FOGGER

Livestock Cooling System



**Innovative & Proven Solution**

Aquamic Livestock Cooling System can be used to achieve required cooling...

## Need of Cooling System :

With the improvement of genetic potential of cows, milk production has also increased over decades, but their ability to convert feed intake into milk production gets lower due to heat stress. High feed intake results in metabolic heat increment at the same time cow also take heat from surrounding environment, because of this in summer high producing cows may suffer heat stress.

Cows maintain their body temperature between 38.6 °C and 39.3 °C, which keeps fluctuating throughout the day.

For high producing cows milk production, reproductive performance and health gets affected at temperature above upper critical temperature of the thermal-neutral zone, i.e., 27 °C.

Cows try to maintain the body temperature through panting, sweating, drinking excess water & moving to shaded & ventilated zone.

Above 35 °C evaporative cooling becomes the only method for heat dissipation which should be employed precisely to maintain thermal homeostasis.

## Concept of Cooling By means of Evaporative Cooling :

Water can be used as a way of cooling livestock under given conditions :

- It should not add humidity to air when the air humidity is already high
- It should not cause any damping of the shed floor and surrounding areas

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## Livestock Cooling System



### Features

- Suitable for clay floor & cemented floor.
- Cools the livestock directly.
- Equal distribution of water during a short time period, this gives very good evaporative cooling to the livestock.
- Softly showers livestock according to a periodic time schedule set by the owner/supervisor.
- Makes sure the cow shed & surrounding floor stays dry.
- Has an anti-leak valve which prevents water seepage when the system closes down.
- Can also be used for cooling other livestock.
- Water evaporates due to local heat, prevents feed and fodder wetting

### Advantages

- Low running cost :
  - Low water consumption (refer details given in table below)
  - Low electricity consumption (refer details given in table below)
- Low initial cost
- Suitable in both weather conditions :
  - Hot & Dry (Summer – March to June)
  - Hot & Humid (Rain – July to September)
- Prevents heat stress
- Maintains production during summer time
- Maintenance free equipments
- Investment will be recovered within one season
- Totally automatic system – no labour required
- Drastically reduces heat stress
- Significantly improves livestock efficiency

## Water & Electricity Consumption in Peak Condition - Hot & Dry (43°C & Above)

From 10am to 7pm	6000 to 8000 sqft	8000 to 16000 sqft	16000 to 30000 sqft
Average Water Consumption (Ltr/Day)	4000-4500	8000-9000	16000-18000
Electricity Consumption (Average Units/Day)	3	7	14
Average Electricity Unit Cost (Commercial) (Rs.)	5.50	5.50	5.50
Total Electricity Cost - Per Day (Rs.)	16.5	38.5	77