

# CATTLE AND SHEEP Heat Stress in Livestock

Changing climate conditions will lead to higher daytime and nighttime temperatures, and longer, more frequent and more intense heat waves.

Heat stress poses serious welfare and productivity issues for all livestock, and will ultimately lead to lost revenue to farmers.

## Key Climate Change Impacts:

**Reduced productivity:** lower milk production, poorer milk composition, poor weight gain, and inefficient feed conversion

**Reproductive issues:** reduced semen quality and quantity, lower libido and lower birth rates

**Immune system suppression:** increased animal vulnerability to diseases and risk of lameness for prolonged periods following heat stress events

## Key Adaptation Strategy

**Shade:** Plant trees, install shade cloths or permanent structures with full herd capacity

**Water:** Provide plenty of clean and cool water in localized, shaded areas

**Air flow:** use fans, open indoor vents, limit time in pens

**Rotationally grazed animals:** rotate more quickly, in the evening, and select paddocks with shade during high heat periods

**Pasture-based dairy cows:** use sprinklers during afternoon milking

**Sheep:** shear in spring or early summer, avoiding heat events

## Heat Stress Awareness:

Heat stress in cattle and sheep can be caused by high temperatures combined with high humidity, stagnant air, or direct sunlight.

Moderate heat stress can occur at temperatures of only 23°C if humidity is high

Severe heat stress can happen at temperatures as low as 28°C

Heat stress is most likely during sudden increases in temperature, early-season heat waves, and the first days of a heat wave

## Signs of Heat Stress:

Reduced feed intake, increased water intake, change in feeding patterns

Animals only standing, congregating, over-crowding shade spots or water

Rapid shallow breathing, open-mouth breathing, panting

Sweating, increased saliva, clumsy, and trembling  
Sheep appear bloated

