

CATTLE AND SHEEP

Perennia's Livestock Comfort Index

Turning weather data into actionable livestock management decisions

Temperatures are increasing in a changing climate. In summers, this means more frequent and intense heat waves. Although winters are generally becoming milder, freezing conditions and sudden cold snaps will continue to occur. These shifting weather conditions make managing livestock health and well being more challenging. Perennia's Livestock Comfort Index is a decision-support tool that combines local weather data with livestock comfort thresholds to assess the risks of heat stress and cold stress. The tool helps producers take proactive steps to protect animal health, welfare and productivity.

Why the Livestock Comfort Index Matters

- Identifies periods of heat stress or cold stress
- Supports animal welfare and comfort
- Helps maintain productivity and performance
- Reduces risk during extreme weather events



How Producers Use the Tool

- Adjust ventilation, shade and cooling strategies
- Modify feeding and handling schedules
- Plan for extreme heat or cold events
- Improve barn and pasture management

How the Index Works

The Livestock Comfort Index tool integrates real-time data from Perennia's weather station network, including:

- Air temperature
- Relative humidity
- Wind speed
- Solar radiation

These measurements are combined to calculate a comfort rating that reflects how weather conditions are experienced by livestock, not just what the temperature reads.

farmdatatools.perennia.ca



Comfort Categories

The index translates complex data into easy-to-understand risk levels, such as:

- Comfortable
- Mild Stress
- Moderate Stress
- Severe Stress



(Categories may vary by species and body condition)

Who the Tool Supports

- Beef and dairy producers
- Sheep, goat and other livestock operations
- Advisors, veterinarians and extension specialists

Data You Can Trust

The Livestock Comfort Index is powered by locally collected weather data and delivered by Perennia to support evidence-based livestock management in Nova Scotia.