

Site-Specific Weather Alerts for Heat Management

Helping farmers better manage cattle heat stress



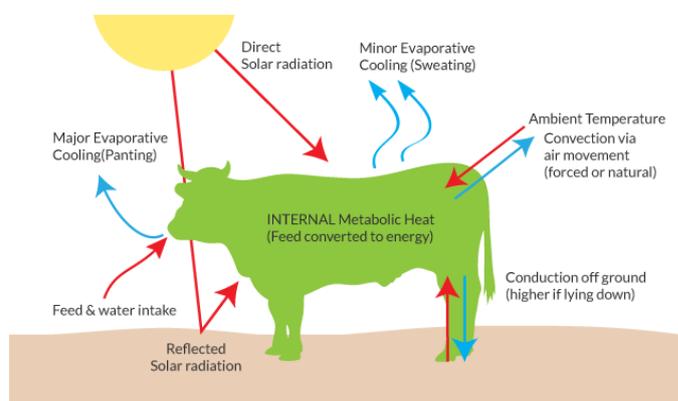
Managing the welfare of the feedlot cattle has always been a primary objective for ALFA and MLA. The Australian summer can be unforgiving for humans as well as animals. For many years the industry had led the way in managing the welfare of their animals by way of policies, procedures and certification. Whilst many of these have provided effective means of managing heat stress, the challenge has always been to implement simple and proactive measures to reduce the risk of heat stress that is relevant for each site.

Many factors combine to increase the risk of heat stress for cattle: animal factors such as the cattle breed, environmental factors such as air temperature, humidity, wind speed and solar radiation, and other factors such as access to shade, number of water troughs and the type of feed to name a few. The number of variables makes it difficult for the feedlot operators to deal with their site's risk as it is constantly altering. Changing weather conditions play a key role in managing heat stress risk.

Recent research undertaken by the CSIRO and funded by MLA indicate that cattle cope better with proactive implementation of the heat load management diets 2 days prior to an event. So the importance of identifying the high-risk conditions a few days in advance is critical to the effective management of the risk to animal welfare.

"ALFA ensures feedlot members have access to the tools and information, especially the CHLT information, and we also run workshops that provide practical training. Last spring, we ran eight Managing Summer Heat Load Workshops across Australia with over 180 feedlot staff attending these events."

Bryce Camm - ALFA President



Energy balance of an animal

Quick Facts

- Developed in 2002
- Used by over 250 feedlots
- Over 90% of the Australian herd monitored
- Industry size: \$11.4 billion in 2017-18 (ABARES Agricultural Commodities 2018)

Problem

Managing the Heat Stress within the Cattle Industry in Australia

Solution

The Cattle Heat Load Toolbox - CHLT

Results

98% of users find CHLT helpful in managing heat stress

For accurate, clear and meaningful weather information for your business decisions, contact us:



Phone: +61 7 3369 3699

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The Cattle Heat Load Tool Box (CHLT)

Tailored Weather Forecasting for Proactive Risk Management

As an ongoing effort to improve the welfare management practices in the industry, the MLA engaged Katestone to develop a set of new web-based tools (chlt.com.au).

The tools combined world-class research conducted by Assoc. Prof. John Gaugan of University of Queensland, many years of research conducted by MLA and a site based weather forecasting system by Weather Intelligence.

The tools combined a Risk Assessment Program (RAP) and also a Risk Forecasting tool. The RAP would be run by each feedlot at the beginning of each summer season to generate a Heat Stress Risk profile for their site for the summer season. The risk forecasting tool - Cattle Heat Load Toolbox (CHLT) would be used on a daily risk management tool which forecasts risks for the site up to 7 days ahead. CHLT also allows users to set alarm/alert thresholds applicable for your site. Based on these alerts, the key stakeholder would get alerts via SMS and email warning them of up and coming high-risk periods. This allows the feedlot operators to take preventative measures to ensure animal welfare.

Successful outcomes

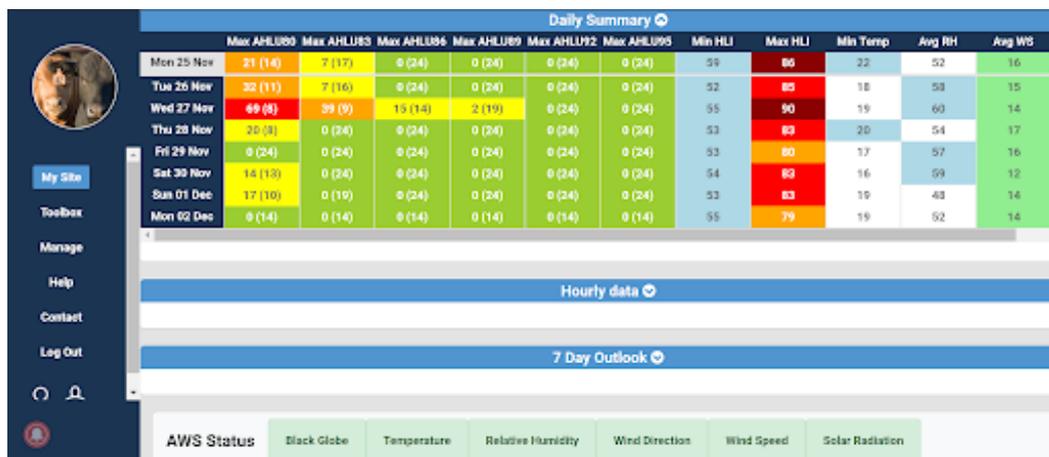
"The Cattle Heat Load Toolbox is an essential part of our Heat Load management."

CHLT User

The Cattle Heat Load Toolbox's success derives from the company's knowledge gained in the feedlot industry, the extensive technical knowledge of climate science, state-of-the-art applied methodology and ongoing feedback and modifications.

The number of feedlots registered in the Cattle Heat Load Toolbox weather forecasting services has increased tenfold since the implementation of a registered service in 2011. The number of feedlots subscribing to receive site-specific weather forecasting alerts has consistently increased over the years with increases of 10% per year.

Currently, CHLT provides site-specific weather forecasts for over 250 feedlots in Australia and supports the well-being of more than 90% of the Australian herd. The 2018 summer alone saw 10,000 alert messages sent. Moreover, survey results show that 98% of the active users find CHLT helpful in providing the necessary information for managing heat stress.



Screenshot of CHLT's user interface

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