

final report

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Heat Load Indices Forecast Season 2011-2012

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Executive summary

A new website was launched with 7 day weather outlooks and 7 day HLI forecasts using a combination of Katestones' Weather Research and Forecasting modelling system and the Global Forecasting System. Subscribers can now specify AHLU thresholds that trigger a warning message via email and/or SMS to be sent to nominated recipients for sites that are forecasted to experience adverse conditions.

There were only a small number of high heat load events this season, it appears that the movement of warm and moist tropical air masses to southern parts of the country for extended periods of time results in increased temperature and relative humidity, especially during the night-time, thereby maintaining a high HLI and restricting recovery.

The relationship between high heat load events and the various scales of motion in the atmosphere provides a new approach to the management of heat load at feedlots. Analysing the climatic drivers of high heat load events will enhance our understanding of the dynamic relationship between large circulation patterns, meso-scale features, such as tropical Cyclones and local influences. To accurately predict the evolution of these dynamic systems and their influence on the HLI and AHLU a better understanding of their development, interactions and ultimately their predictability is required.

The forecasting system performed well at forecasting the location and magnitude of the synoptic features and weather patterns that influenced the development of high heat load events at the regional and local scale.

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Glossary

Term	Definition
AHLU	Accumulated Heat Load Unit
AWS	Automatic Weather Stations
BoM	Bureau of Meteorology
°C	degrees Celsius
ENSO	The El Niño/Southern Oscillation
GFS	Global Forecasting System
HLRi	Heat Load Recovery Index
HLI	Heat Load Index
IOA	Index of Agreement
Km	kilometre
M	metre
MJO	Madden-Julian Oscillation
MAE	mean absolute error
m/s	metres per second
RMSE	root mean squared error
SST	sea surface temperature
SOI	Southern Oscillation Index
TC	Tropical Cyclones

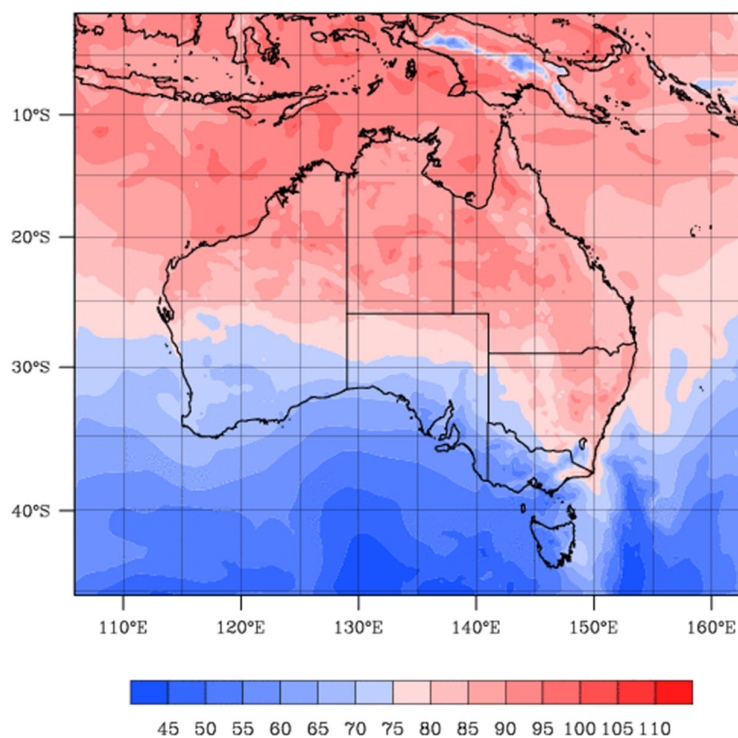
1 Background

1.1 Heat load forecasting service

The 2011/12 heat load forecasting season heralded the launch of the Cattle Heat Load Toolbox web site (www.nws-katestone.com.au). The new website provided forecast weather and heat load information to users for a seven day period. The first four days were derived from hourly forecast generated by the WRF modelling system and the final 3 days were extracted from the Global Forecasting System (GFS). The WRF modelling domain was extended to encompass a larger area of the surrounding oceans to better resolve the generation of tropical weather systems (Figure 1). The forecast was also updated with observed daily sea surface temperatures. The forecast was generated every 12 hours (twice daily) and uploaded to the website at 0600 and 1800 daily.

New innovations developed for the 2011/12 forecasting system was an email and SMS alert system. Registered feedlot operators specified AHLU thresholds that triggered a warning message to be sent to nominated recipients for sites that were forecasted to experience adverse conditions. Operators could also nominate several sites to monitor; this option was popular with regional veterinarian services that some feedlot operators nominated as recipients. A weather outlook service was also provided by a Katestone meteorologist, updating visitors to the site on the current regional weather conditions and the likelihood of adverse conditions for the outlook period of 7 days.

Figure 1 Heat load forecast for January 8 1700 AEST



There has been a steady increase in the number of registered users over the season. As of 19 March there are 57 feedlots registered and, using the AusMeat database figures, 503,657 head of cattle are being covered by the service. There were 71 individual alerts set up and 320 SMS alerts were sent during the forecast season. Australian visitors to the website account for 82.19% of all page views - 59.82% of the visitors are from Queensland, 17.61% from WA, 14.45% from Victoria, 7.11% from NSW and 1.02% from South Australia. We have not recorded visitors from the ACT, NT or Tasmania. The most visited pages are the Register User Forecast, the HLI calculator, the RAP calculator, the major town forecasts followed by the seven-day outlooks. The top ten most popular site pages are all clustered around the Queensland / NSW border:

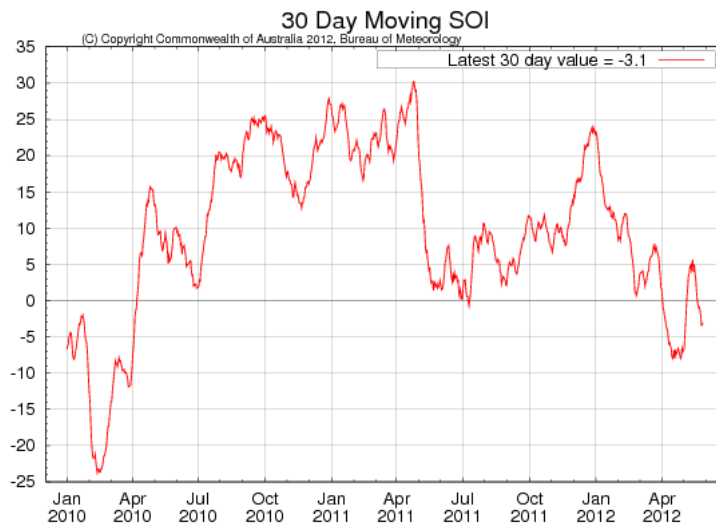
- Moree, NSW
- Dalby, QLD
- Tamworth, NSW
- Gunnedah, NSW
- Inverell Research Centre, NSW
- Miles, QLD
- Emerald Airport, QLD
- Oakey, QLD
- Gympie, QLD
- St George Airport, QLD

The most popular seven-day outlooks are for South-east Queensland, Eastern and Central NSW, Central Queensland and Victoria. The outlook for Western Australia saw minimal usage. The Tasmanian and Northern Territory outlooks were not visited

1.2 Forecast season weather review

The 2011/12 heat load forecasting season was dominated by La Niña conditions over the Tropical Pacific Ocean. The Southern Oscillation Index peaked in December with a value of +23 before declining into neutral values in mid-February (Figure 2). The effects of the La Niña conditions were observed across Australia with much of the country receiving above average rainfalls, particularly in the northern NSW, parts of Victoria and southern Queensland.

Figure 2 Southern Oscillation Index for the period January 2010 to May 2012 (30 Day moving average)



Maximum daytime temperatures were generally close to normal over most of the continent, with parts of eastern Australia experiencing a cooler than normal summer. Minimum nighttime temperatures were generally below average in the central and northern parts of the country with above average minimum temperatures across much of southern Australia and parts of the far tropical north.

Six tropical cyclones (TC) were recorded in the Australian region, with three making landfall.

- TC Grant December 21-30 (WA)
- TC Fina December 22
- TC Heidi January 9-12 (WA)
- TC Iggy January 23 – February 3
- TC Jasmine February 1-6
- TC Lua March 9-18 (WA)

TC Grant crossed the Top End of the NT in late December. TC Heidi and TC Lua crossed the Pilbara coast in mid-January and early march. While the other three TCs did not make landfall they did contribute to heavy rains across the western, northern and central regions. TC Fina formed on December 18 over the North Coral Sea and tracked south before weakening to a tropical low on the 22nd. The System amplified an upper level trough across eastern Australia. TC Iggy crossed the WA coast near Geraldton as a tropical low and brought extensive rain and gale force winds to much of the central west coast. TC Jasmine formed as a tropical low in the Gulf of Carpentaria on February 1 and crossed the Cape York Peninsula before intensifying into a TC over the Coral Sea. TC Jasmine did not have a major influence on the feedlot regions.

Monsoonal lows also contributed to localized heavy rain falls and storms. While the Australian Monsoon season was close to average it was characterised by long periods of dry break conditions interspersed with short but very wet active bursts. These bursts caused severe flooding and thunderstorm activity over much of eastern Australia.

1.3 Heat load forecast season

The heat load forecast season was characterized by a lack of widespread heat load events. While some individual sites experienced some periods of excessive heat loading these were short lived. Six feedlot regions were grouped identified as being in similar geographic and climatic zones that encompass the majority of feedlot operators and coincide with BOM automatic weather stations, thus facilitating the analysis of heat load events and the performance of the forecast (Figure 3). Several sites do not fit within these regions, notably Darwin, Tasmania and central South Australia and have been assessed independently. The regions are:

- Southwest West Australia
- Riverina (encompassing sites in South Australia, Victoria and NSW)
- Central NSW
- Northern NSW and southeast QLD
- Central QLD
- North QLD

The Heat Load Recovery Index (HLRi) (Appendix B) was calculated for the six feedlot regions to identify regional heat load events. The HLRi is a measure of heat load accumulation (negative values) and recovery (positive values). The lower both values reach the higher the heat load event.

Three periods stood out as noticeable regional events

- Early January 2012 (January 8-9)
- Late January 2012 (January 27-29)
- Early February 2012 (Feb28-29)

The early January event was concentrated on the eastern feedlot regions affecting central NSW, northern NSW/SEQ, central NSW and QLD. While the late January event affected all feedlotting regions and the early February event only impacted on the Riverina and Central NSW regions (Figures 4-9).

As these events are driven by synoptic weather patterns and the progression of fronts across the continent the periods in question extend over several days to a week as one location is effected followed by the next as the particular system sets up and migrates through the region. For the purpose of analysing the performance of the forecast in capturing these events the key features of the synoptic situation have been identified and extracted from the model for comparison with BOM reanalysis charts.

Figure 3 The six feedlot regions identified for analysis

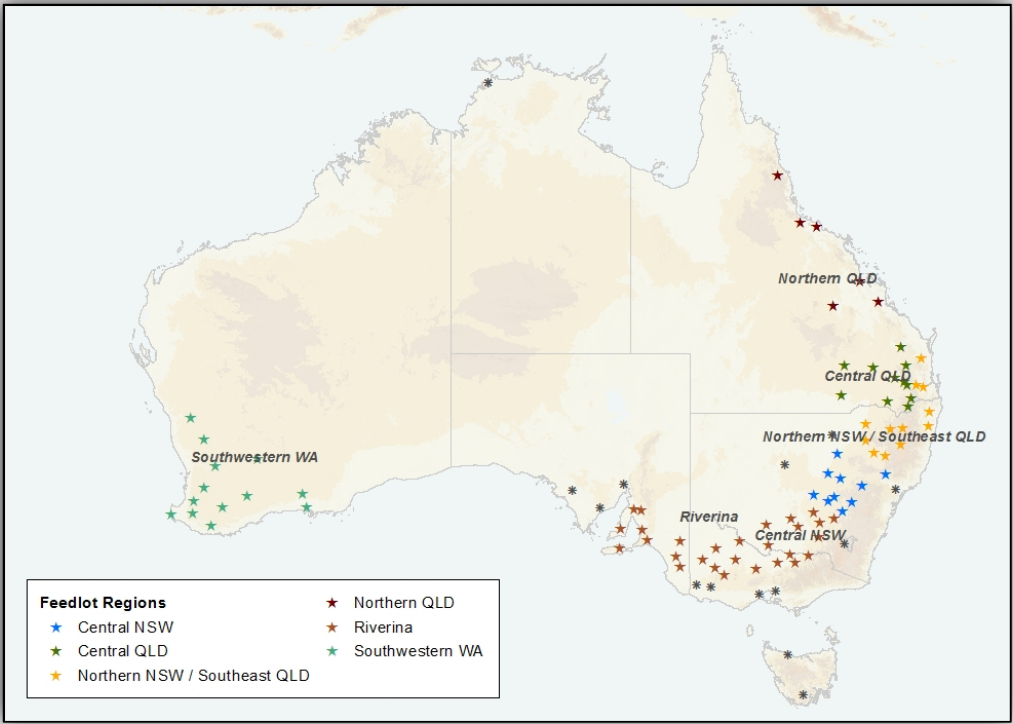


Figure 4 Average heat load recovery index for southwest WA sites

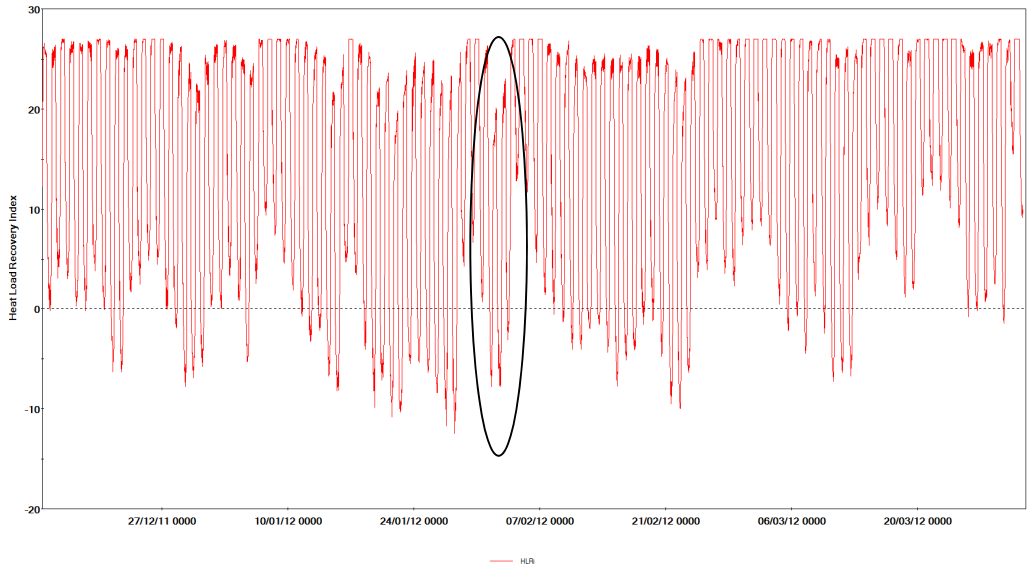


Figure 5 Average heat load recovery index for Riverina sites

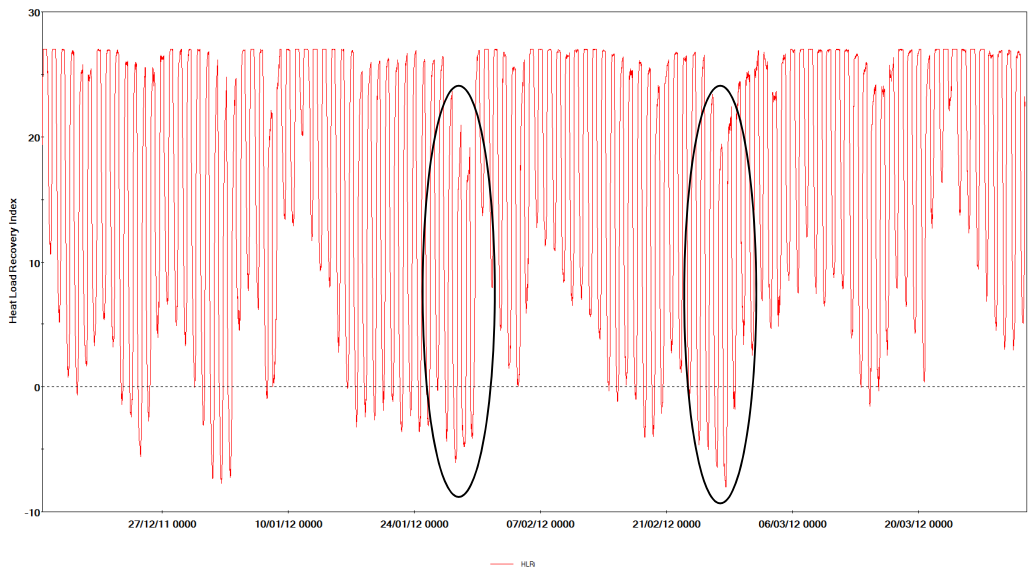


Figure 6 Average heat load recovery index for Northern NSW/SEQ sites

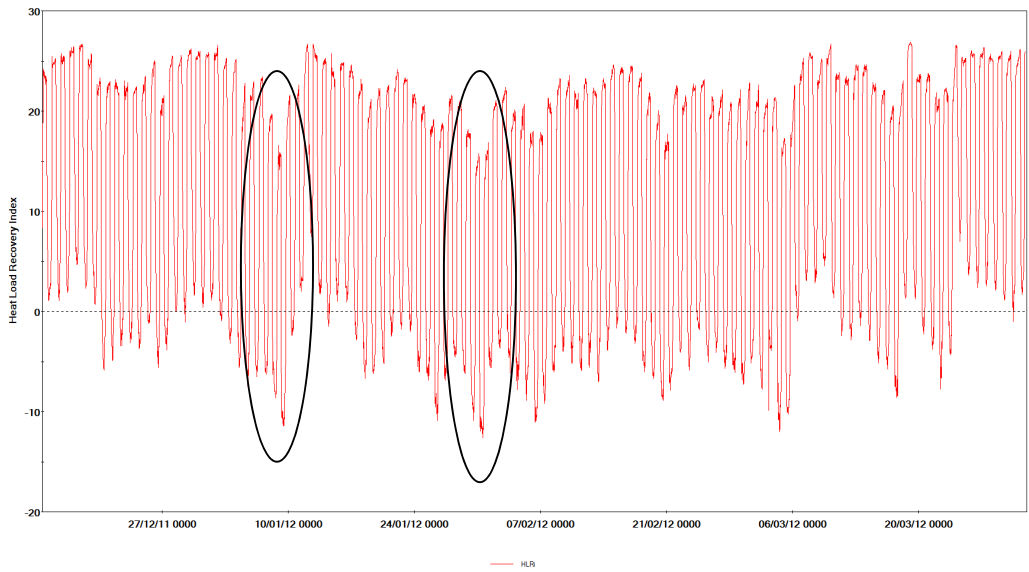


Figure 7 Average heat load recovery index for Central NSW sites

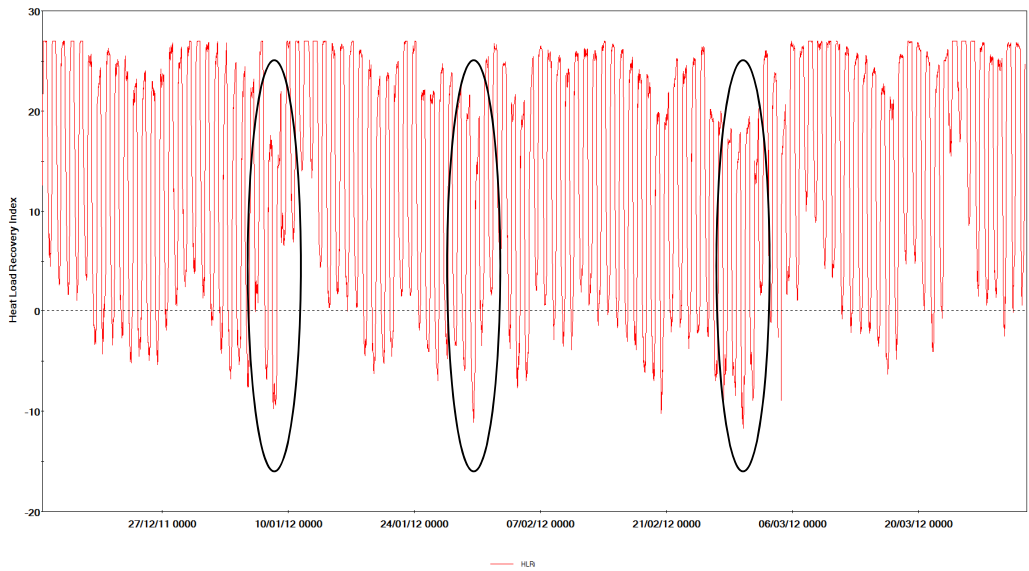


Figure 8 Average heat load recovery index for Central QLD sites

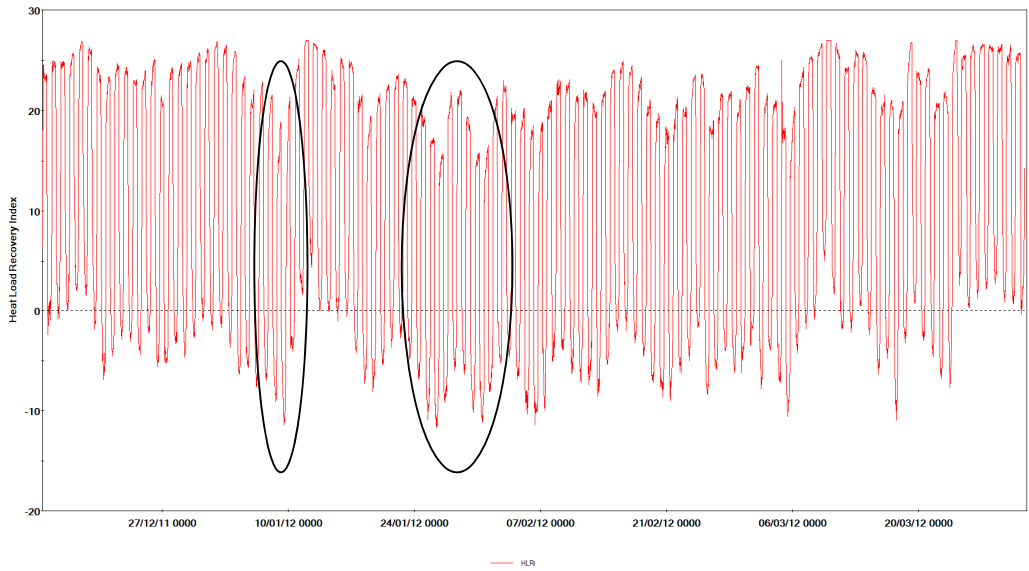
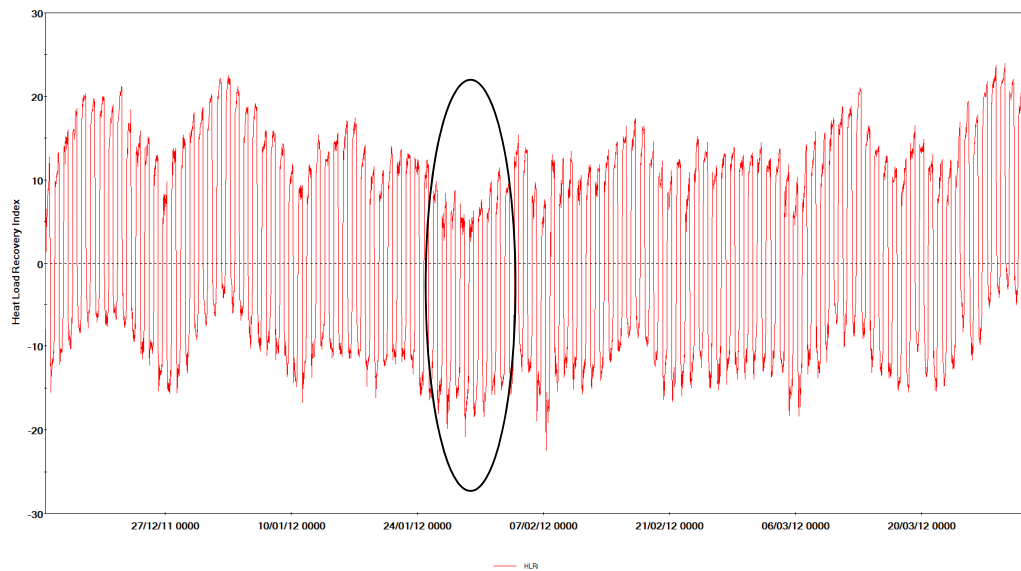


Figure 9 Average heat load recovery index for northern QLD sites

1.4 Early January 2012

This event was driven by a complex series of tropical lows which formed over much the Top End. A surface trough had extended down from the north into the southern reaches of QLD bringing unstable weather and isolated showers. The surface trough also brought warm moist tropical air into the region causing an increase in temperature and humidity. The high pressure system intruding from the southwest provided only a weak ridge into the region keeping wind speeds low.

Figure **10** shows the BOM analysis chart for January 8 at 2300 hours and the KE-WRF forecast. The forecast correctly identifies the position and strength of the ridge and the surface trough. Scattered showers are also forecast along the trough as mentioned in the analysis.

Figure 11 shows the HLI forecast for the same period. The lighter coloured regions show elevated HLIs (>75) for much of eastern Australia thereby reducing the rate of recovery overnight. By January 9 the high pressure system to the southwest intensified and the ridge pushed the surface trough north bringing cooler temperatures and stronger winds, thus ending the heat loading event (Figure 12).

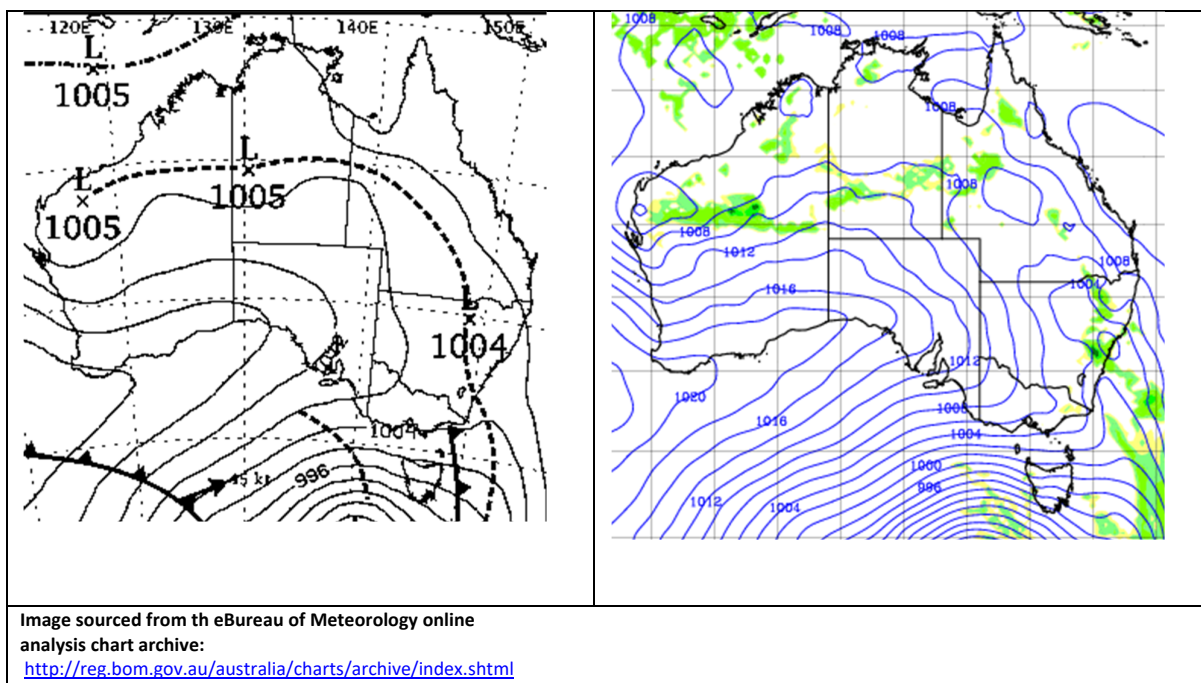
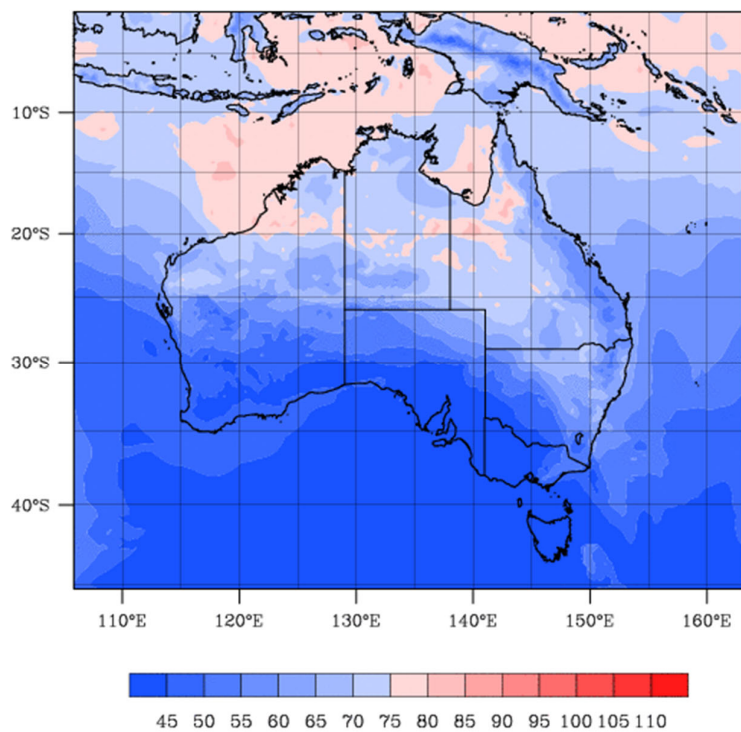
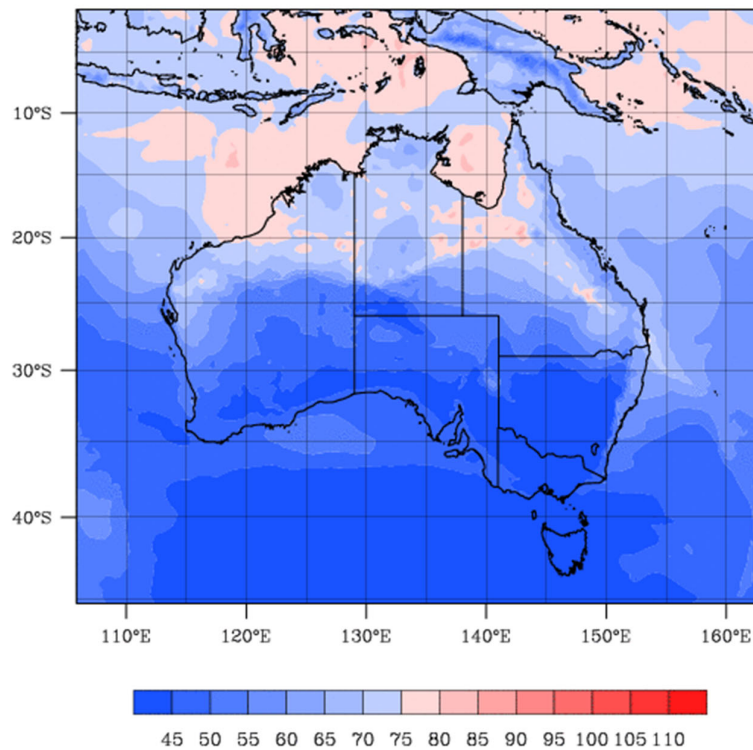
Figure 10 January 8 2300 AEDT, BOM reanalysis chart on the left KE-WRF forecast on the right**Figure 11** Heat Load Index forecast for January 8 2300 AEDT

Figure 12 Heat Load Index forecast for January 9 2300 AEDT

1.5 Late January 2012

This event was driven by TC Iggy approaching the WA coast and a monsoonal low pressure system forming over central QLD. A surface trough joined the two systems and extended across the continent from west to east. Two secondary troughs formed along the west coast and over South Australia along a north-south orientation. This system brought widespread rains and unstable weather conditions to much of the country. The surface trough also brought warm moist tropical air into the feedlot regions causing an increase in temperature and humidity.

Figure 13 shows the BOM analysis chart for January 28 at 2300 hours and the KE-WRF forecast. The forecast correctly identifies the position and strength of TC Iggy and the monsoonal low.

Figure 14 shows the HLI forecast for the same period. The lighter coloured regions show elevated HLIs (>75) for much of eastern Australia thereby reducing the rate of recovery overnight. This situation persisted until the end of the month where a high pressure system formed in the Bight pushing the monsoon trough back towards its northern position and TC Iggy subsided to a low pressure system before crossing the WA coast in early February (Figure 15).

Figure 13 January 28 2300 AEDT, BOM reanalysis chart on the left KE-WRF forecast on the right

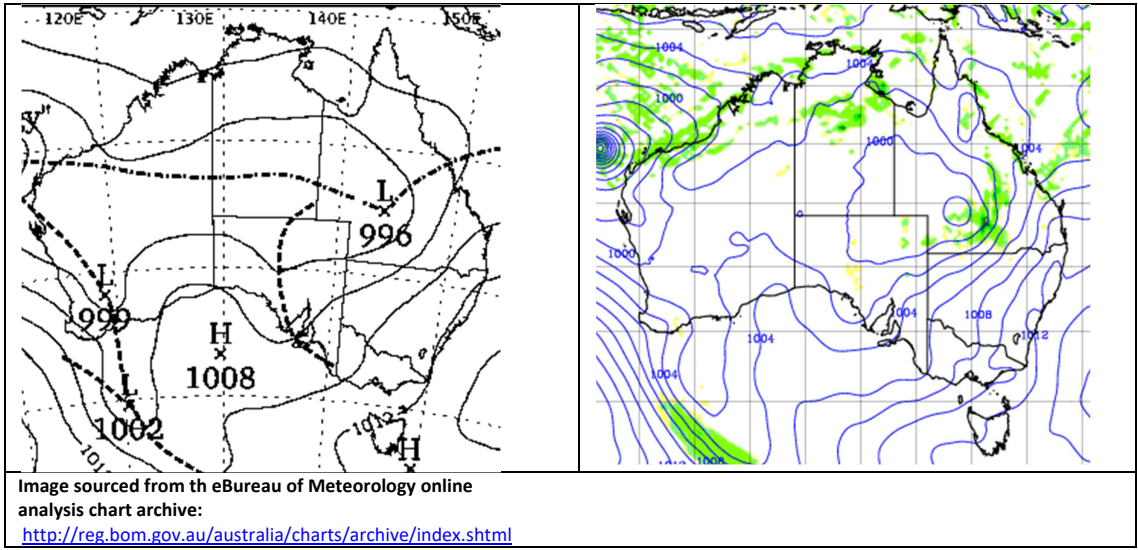


Figure 14 Heat Load Index forecast for January 28 2300 AEDT

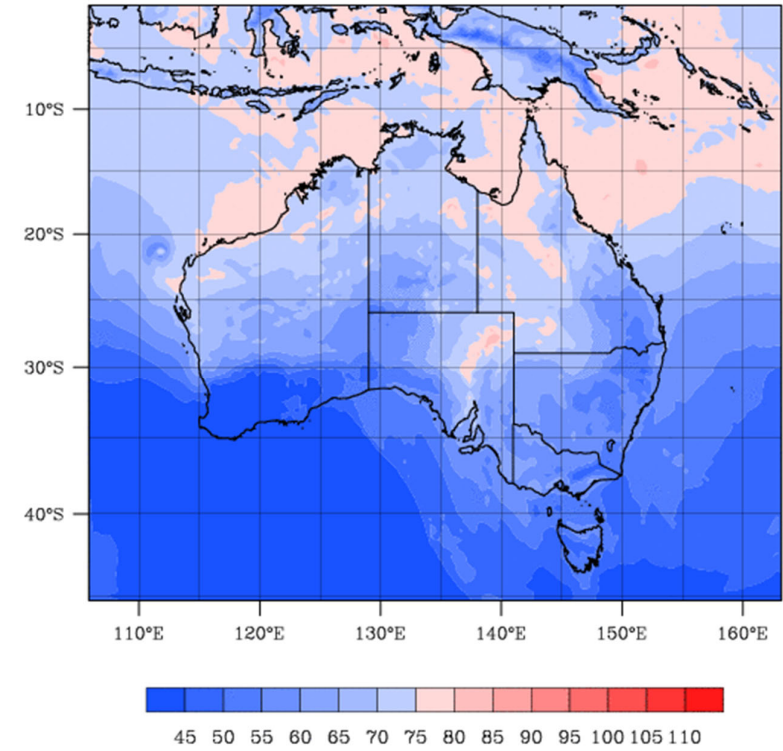
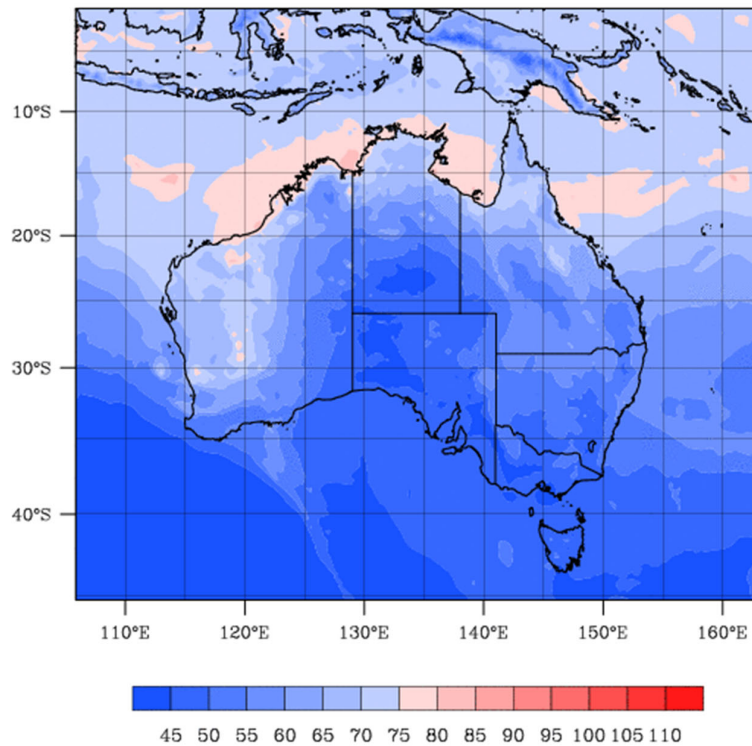


Figure 15 Heat Load Index forecast for February 2 2300 AEDT

1.6 Late February 2012

A stationary high pressure system was located in the Tasman Sea causing high temperatures and calm conditions for much of the Riverina and central NSW regions. On February 27 a low pressure surface trough extended into the region bring warm, moist tropical air and unstable weather conditions. The situation persisted for several days and caused major flooding in the Riverina and central NSW regions. Although the HLI remained relatively high during this period the magnitude of the heat load event was tempered by the heavy rains.

Figure 16 shows the BOM analysis chart for February 28 at 2300 hours and the KE-WRF forecast. The forecast correctly identifies the position and strength of the surface trough.

Figure 17 shows the HLI forecast for the same period. The lighter coloured regions show elevated HLIs (>75) for the Riverina and central NSW regions thereby reducing the rate of recovery overnight. The situation persisted for several days and caused major flooding in the Riverina and central NSW regions. Although the HLI remained relatively high during this period (

Figure 18) the magnitude of the heat load event was tempered by the heavy rains.

Figure 16 February 28 2300 AEDT, BOM reanalysis chart on the left KE-WRF forecast on the right

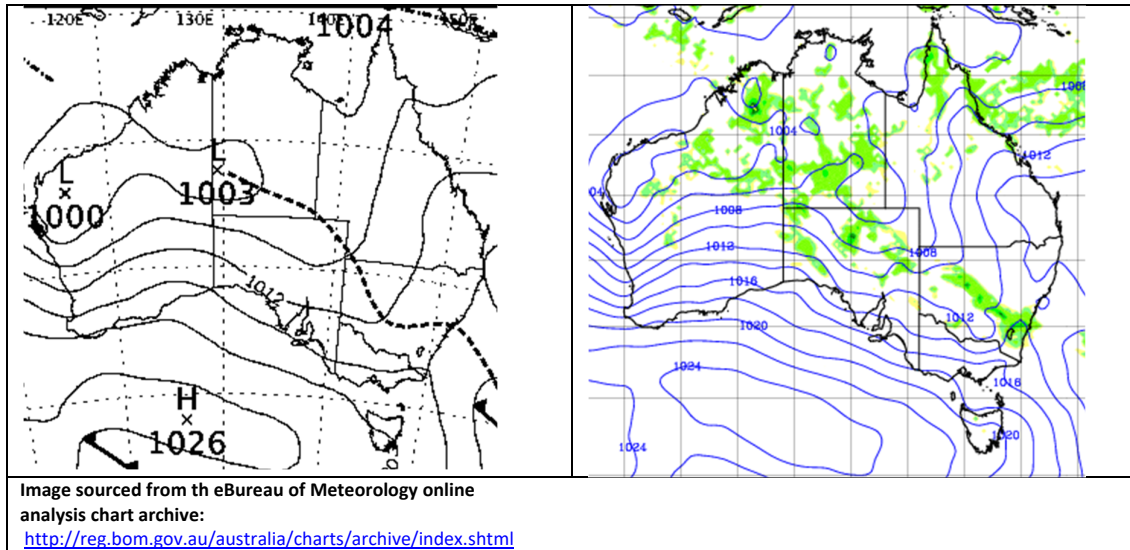


Figure 17 Heat Load Index forecast for February 28 2300 AEDT

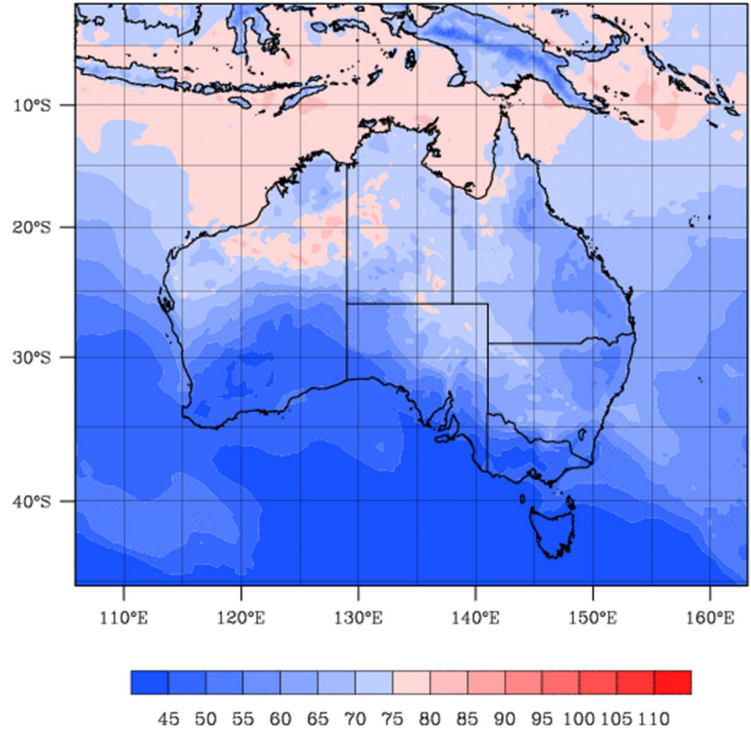
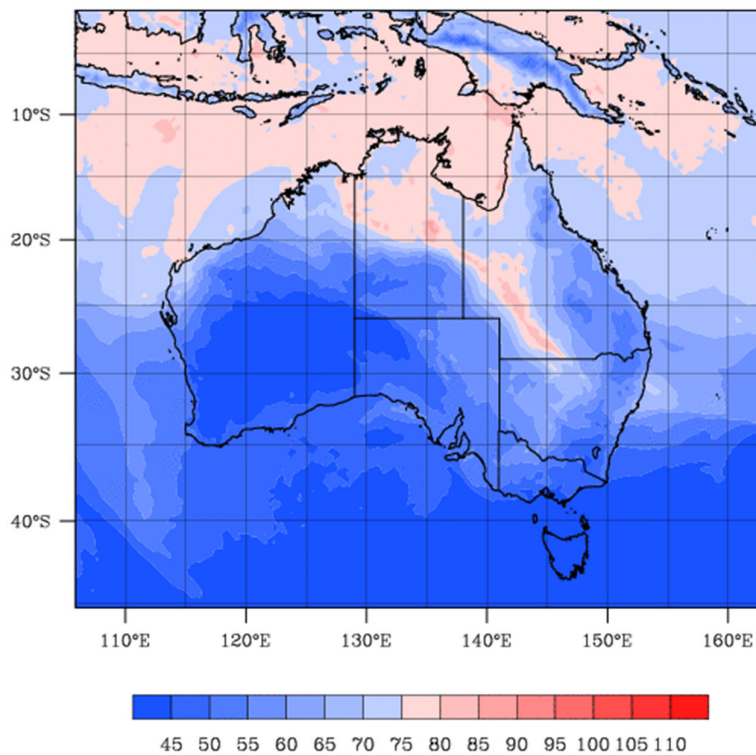


Figure 18 Heat Load Index forecast for March 1 2300 AEDT

1.7 Forecast performance

1.7.1 Performance Measures

The index of agreement (IOA) is the ratio of the total RMSE to the sum of two differences:

- The difference between each prediction and the observed mean
- The difference between each observation and observed mean

The IOA is a good measure of model performance in that it compares each individual hour against the mean of the observations, such that if the predicted and observed values vary at different scales or rates a poor agreement will result (< 0.6). Where an IOA of 1 indicates perfect agreement or both the predicted and observed vary about the mean at the same scale and rate.

The root mean square error (RMSE) can be described as the standard deviation of the difference for hourly prediction and observation pairings at a specific point which measures the average magnitude of the error. The difference between forecast and corresponding observed values are each squared and then averaged over the sample. Finally, the square root of the average is taken. Since the errors are squared before they are averaged, the RMSE gives a relatively high weight to large errors. This means the RMSE is most useful when large errors are particularly undesirable. Overall, the RSME is a good overall measure of model performance.

The mean absolute error (MAE) measures the average magnitude of the errors in a set of forecasts, without considering their direction. It measures *accuracy* for continuous variables. Expressed in

words, the MAE is the average over the verification sample of the absolute values of the differences between forecast and the corresponding observation. The MAE is a linear score which means that all the individual differences are weighted equally in the average. The MAE and the RMSE can be used together to diagnose the variation in the errors in a set of forecasts. The RMSE will always be larger or equal to the MAE; the greater difference between them, the greater the *variance* in the individual errors in the sample. If the RMSE=MAE, then all the errors are of the same magnitude.

1.7.2 Results

The results of the performance analysis are summarised here for the six feedlot regions, complete performance tables for each site are provided in Appendix B.

Table 1 shows the RMSE for HLI, relative humidity, temperature and wind speed for the six regions. The eastern regions tend to show similar performance values with the forecast error in wind speed and temperature generally close to 2 for day 1 and 2 with a general trend towards an RMSE of 3 by the day 4. Southwest WA shows a more consistent RMSE between forecast days remaining close to 2 for wind speed and 3.4 to 3.8 for temperature.

Relative humidity has an RMSE in the range of 10 to 15 for all regions with a general trend towards increasing errors by the end of the forecast period. Southwest WA shows the least variation in RMSE over the period. The forecasted HLI shows an RMSE of close to 5 for all regions except southwest WA which is closer to 8. Again all regions show a slight increase in error as the forecast period extends into the final day except the southwest WA region which remains consistent at approximately 8.

Table 2 shows the MAE for HLI, relative humidity, temperature and wind speed for the six regions. All regions tend to show similar performance values with the forecast error in wind speed and temperature generally close to 2 for day 1 and 2 with a general trend towards an MAE close to 3 by the day 4. This indicates that the magnitude of the error in wind speed and temperature is consistent between all eastern sites for wind speed and temperature as the MAE is close to the RMSE. Southwest WA shows a significantly lower MAE than RMSE indicating that some sites have larger errors than the rest. The southwest WA site with the largest RMSE for wind speed was Collie East (33.360 S, 116.171 E) at 2.6 m/s. The site with the largest RMSE for temperature was Newdgate Research Station (33.113 S 118.84 E) at 4.0 °C. The site the lowest RMSE was Rocky Gully (34.571 S 117.01 E) at 1.6 m/s and 2.8 °C for wind speed and temperature.

The forecast showed good skill in forecasting the HLI in the eastern regions with an IOA above 0.95 for all regions even out to day 4. Southwest WA again lagged behind with an IOA of 0.88 for days 1 and 2 and 0.87 for days 3 and 4. Temperature showed good agreement across all regions as did relative humidity. This indicates that the model is correctly predicting the range of temperatures and relative humidity, evidenced by the excellent agreement with the HLI which is largely driven by these two variables. Wind speed showed adequate agreement ranging from 0.8 to 0.63 for day 1 and gradually declining in agreement as the forecast period approached day 4 as is expected. Although the agreement is not as good as the other three metrics the error in wind speed is relatively low and hence the influence on the predicted HLI is not large.

The modelling system continues to improve with each forecast season due to changes and improvements such as the addition of sea surface temperature data assimilation saw improvements

in the representation and location of the monsoon trough. The addition of surface and upper air data assimilation in regions that show poor performance will greatly improve the forecast in those areas. Overall the model performed very well in predicting the onset, magnitude and duration of heat load events in all six feedlot regions.

Table 1 Root mean square error (RMSE) for HLI, relative humidity, wind speed, temperature

Feedlot Regions	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Central NSW	2.2	2.4	2.6	2.8	4.6	4.8	5.0	5.5	14.4	16.3	17.5	18.3	1.9	2.1	2.1	2.2
Central QLD	2.0	2.1	2.2	2.5	4.7	5.1	5.5	5.9	12.4	13.7	14.3	15.4	2.4	2.6	2.8	2.8
Northern NSW/SEQ	1.9	2.0	2.1	2.4	4.1	4.3	4.6	5.1	10.9	11.7	12.5	13.6	1.9	2.1	2.2	2.3
North QLD	1.7	1.8	1.9	2.1	5.7	6.0	6.4	7.0	11.2	13.7	15.0	15.7	2.0	2.4	2.6	2.8
Riverina	2.1	2.4	2.5	2.9	4.0	4.2	4.4	4.9	11.6	13.2	14.1	15.2	1.7	1.9	2.0	2.1
Southwest WA	3.5	3.6	3.7	3.8	8.1	8.1	8.2	8.3	14.5	15.5	15.9	16.4	2.0	2.1	2.2	2.2

Table 2 Mean absolute error (MAE) for HLI, relative humidity, wind speed, temperature

Feedlot Regions	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Central NSW	1.7	1.9	2.0	2.2	3.0	3.2	3.4	3.8	10.8	12.3	13.2	13.9	1.5	1.6	1.7	1.8
Central QLD	1.6	1.6	1.7	1.9	3.3	3.6	3.9	4.3	8.8	9.8	10.4	11.2	2.0	2.2	2.3	2.3
Northern NSW/SEQ	1.5	1.6	1.7	1.8	2.7	3.0	3.2	3.6	8.2	8.8	9.4	10.1	1.5	1.7	1.7	1.9
North QLD	1.3	1.4	1.4	1.5	3.8	4.1	4.5	4.9	8.3	10.2	11.4	12.0	1.6	2.0	2.1	2.3
Riverina	1.7	1.8	1.9	2.2	2.5	2.6	2.7	3.1	8.5	9.6	10.3	11.1	1.4	1.5	1.6	1.6
Southwest WA	2.9	2.9	3.0	3.1	5.2	5.3	5.4	5.5	11.1	11.7	12.0	12.4	1.6	1.7	1.8	1.8

Table 3 Index of agreement (IOA) for HLI, relative humidity, wind speed, temperature

Feedlot Regions	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Central NSW	0.94	0.93	0.92	0.90	0.96	0.95	0.95	0.94	0.87	0.83	0.81	0.79	0.75	0.71	0.68	0.63
Central QLD	0.94	0.94	0.93	0.91	0.96	0.95	0.95	0.94	0.90	0.88	0.87	0.84	0.63	0.59	0.55	0.53
Northern NSW/SEQ	0.95	0.94	0.93	0.91	0.97	0.97	0.96	0.95	0.90	0.89	0.87	0.84	0.74	0.70	0.66	0.62
North QLD	0.92	0.91	0.90	0.88	0.94	0.94	0.93	0.91	0.88	0.83	0.80	0.79	0.65	0.59	0.55	0.50
Riverina	0.96	0.96	0.95	0.93	0.96	0.96	0.96	0.95	0.92	0.89	0.88	0.86	0.80	0.76	0.72	0.68
Southwest WA	0.91	0.90	0.89	0.89	0.87	0.87	0.87	0.87	0.88	0.86	0.85	0.84	0.69	0.67	0.64	0.62

2 Conclusions

There were only a small number of high heat load events this season, at the broad scale it appears that the movement of warm and moist tropical air masses to southern parts of the country for extended periods of time results in increased temperature and relative humidity, especially during the night-time, thereby maintaining a high HLI and restricting recovery.

The synoptic patterns exhibited during these high heat load events indicate that fluctuations in the position of the monsoon trough and relative position of the sub-tropical ridge could play a significant role in the development of heat load events at both the regional and continental scale. It was also shown that on a regional scale the proximity and location of Tropical Cyclones to either coast can modulate the flow of air masses and cause localised heat load events further afield than where their impacts are usually felt. The development of a Northwest cloud band was also linked with a high heat load event localised around the South Australian Feedlots.

These features are well known aspects of the Australian climate (Sturman and Tapper 1996) however the dynamic interaction between localised heat load events, meso-scale features such as Tropical Cyclones and the synoptic scale movements of the monsoon trough and Sub-tropical ridge is poorly understood.

The dynamical model performed well at forecasting the location and magnitude of the synoptic features and weather patterns that influenced the development of high heat load events at the regional and local scale.

3 Recommendations

The forecast systems configuration, physics and dynamics are constantly under review and fine-tuned as required during operation. This is known as the model optimisation process and is a fundamental aspect of numerical weather prediction and the delivery of the heat load forecast service. Further improvements to the modelling system can be achieved through onsite meteorological measurements at feedlots that have subscribed to the site specific service. This will enable a performance analysis to be conducted for these locations as well as aiding in the refinement of model parameterisations.

Further study is required to conclusively link the formation and movement of synoptic and meso-scale features to local, regional and Australia wide heat load events. In particular, the potential effects of climate variability (both short and long term) on these synoptic scale phenomena and what this means to the industry on a regional and local scale.

It is recommended that a heat load climatology be developed for Australia in order to identify the links between ENSO, phases in the monsoon, tropical cyclones and local conditions. This will extend the analysis presented here by identifying key aspects of the climate that drive the development of high heat load events in association with conditions at the local scale. The climatology will increase our understanding of the dynamic relationship between the multiple scales of atmospheric motion and their influence on local conditions increasing the efficiency of the model optimisation process.

A climatology of heat load will also enable the development of seasonal forecasting tools, such as an updated RAP that accounts for ENSO phases and intensity. There is also the potential for climate projections of medium to long term climate variability and the impact it may have on feedlot development and management.

4 References

Sturman AP and Tapper NJ 2004, Weather and Climate of Australia and New Zealand. Melbourne Oxford University Press.

5 Appendices

5.1 Appendix A

The heat load recovery index (HLRI) is calculated by subtracting the calculated HLI from the minimum recovery threshold of 77 HLI units and averaging the remainder across all sites resulting in a mean hourly HLRI. Extended periods without recovery are then extracted by low pass filtering the hourly HLRI into three and six day window, this can be reduced or increased to any time window that is desired. The HLRI is expressed by:

$$HLRI = \frac{1}{t_d} \sum_{t=1}^{t_d} \left(\frac{\sum_{n=1}^N (77 - HLI_n(t))}{N} \right)$$

where t is the base time step of the data set, in this case one hour, t_d is the time window in hours, such that three days equals 72 hours, N is the total number of sites, n represents each individual site and HLI is the heat load index for each site.

A minimum and maximum recovery threshold is proportional to the minimum heat load accumulation value assigned to cattle type and condition, where a heat load accumulation threshold of 83 has a recovery threshold of -6 and 21 on the HLRI scale, these values correspond to heat loading during the daytime (negative value) and the amount of recovery during the night (positive value). To accumulate heat load the HLRI must be below both recovery thresholds for that cattle type. The length of time and magnitude of the exceedence below these criteria represents the severity of the event. Table A1 provides guidance on the relevant recovery thresholds.

Table A1 Heat load recovery scale by accumulation threshold

HLI accumulation value	HLRI _{min}	HLRI _{max}
95	-18	9
92	-15	12
89	-12	15
86	-9	18
83	-6	21
80	-3	24

5.2 Appendix B

RMSE

Central NSW	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Condobolin (NSW)	2.1	2.4	2.5	2.8	5.3	5.4	5.6	6.1	15.3	17.0	17.7	18.1	1.9	2.0	2.1	2.2
Coonamble (NSW)	2.5	2.7	2.9	3.3	4.3	4.6	5.1	5.5	19.1	21.3	23.2	24.8	1.7	1.9	2.0	2.1
Cowra (NSW)	1.9	2.3	2.4	2.6	4.3	4.7	4.7	5.0	12.2	14.1	15.5	15.8	1.7	1.9	1.9	1.9
Dubbo (NSW)	1.9	2.2	2.5	2.8	3.8	4.1	4.4	4.9	13.0	16.1	17.7	18.6	1.7	1.8	1.9	2.0
Forbes (NSW)	2.1	2.4	2.5	2.7	4.9	5.0	5.1	5.6	16.8	18.5	19.4	19.6	1.8	2.0	2.1	2.1
Mudgee (NSW)	2.3	2.5	2.6	2.9	5.0	5.5	5.5	6.0	12.5	14.4	15.7	16.5	2.2	2.4	2.4	2.6
Orange (NSW)	2.1	2.2	2.3	2.6	3.6	3.7	3.8	4.7	15.0	15.5	17.0	18.2	2.1	2.2	2.2	2.4
Parkes (NSW)	2.2	2.4	2.5	2.8	4.8	5.0	5.2	5.7	13.1	14.7	15.5	15.9	2.5	2.7	2.8	2.8
Scone (NSW)	2.3	2.4	2.5	2.8	5.5	5.6	5.5	6.0	11.6	14.0	14.8	15.9	1.9	2.0	2.1	2.2
Trangie Res. Stn. (NSW)	2.3	2.5	2.8	3.0	4.2	4.5	4.7	5.4	15.0	17.2	18.7	20.0	1.7	1.8	1.9	2.0

Central QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Applethorpe (QLD)	1.5	1.6	1.7	2.0	4.7	5.0	5.3	5.8	9.5	10.4	11.3	12.9	3.5	3.9	4.0	4.2
Dalby (QLD)	1.8	2.0	2.0	2.3	3.8	4.3	4.7	5.0	10.4	11.9	12.1	13.4	1.8	2.0	2.1	2.3
Gayndah (QLD)	1.8	1.7	1.8	2.2	4.8	5.1	5.5	6.0	9.4	9.3	9.8	11.8	2.8	3.3	3.4	3.3
Inglewood Forest (QLD)	2.1	2.2	2.2	2.6	3.8	4.2	4.4	4.8	12.5	13.8	14.3	16.2	1.7	1.8	1.9	2.1
Kingaroy (QLD)	1.6	1.8	2.0	2.2	5.3	5.9	6.3	6.9	9.5	11.3	12.1	13.5	2.5	2.8	3.0	3.0
Miles (QLD)	2.3	2.3	2.5	2.7	5.2	5.7	6.2	6.5	14.7	16.3	17.2	17.4	2.6	2.8	2.9	2.9
Oakey (QLD)	1.9	2.0	2.2	2.4	3.7	4.3	4.6	5.0	9.2	10.2	10.6	11.6	1.8	1.9	2.1	2.3
Roma (QLD)	3.0	3.1	3.2	3.4	4.5	5.0	5.4	5.9	18.9	22.0	23.0	22.6	1.9	2.1	2.2	2.3
St. George (QLD)	2.2	2.4	2.5	2.9	5.0	5.5	5.9	6.3	16.4	18.3	19.2	19.8	2.0	2.3	2.4	2.5
Toowoomba (QLD)	1.9	2.1	2.1	2.3	3.8	3.8	4.0	4.6	11.9	13.1	13.4	14.5	3.3	3.2	3.1	3.2
Warwick (QLD)	1.9	2.0	2.1	2.4	7.4	7.5	7.8	8.2	14.2	14.0	14.1	15.5	2.6	3.0	3.2	3.3

Northern NSW/SEQ	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Amberley (QLD)	1.7	1.8	2.0	2.2	5.1	5.2	5.6	6.0	9.0	9.7	10.8	11.5	1.9	2.2	2.4	2.5
Armidale (NSW)	1.7	1.9	2.0	2.3	3.1	3.3	3.6	4.1	11.8	13.1	13.8	14.8	1.6	1.6	1.7	2.0
Casino (NSW)	2.3	2.5	2.4	2.5	4.8	4.9	5.2	5.6	10.4	11.1	11.2	12.1	1.6	1.8	1.9	2.0
Glen Innes (NSW)	1.7	1.9	2.1	2.2	3.1	3.2	3.3	3.9	9.9	10.7	11.4	12.6	1.7	1.8	2.0	2.3
Grafton Res. Stn. (NSW)	1.9	2.0	2.0	2.2	4.1	4.3	4.5	5.0	10.6	10.3	10.2	11.5	1.4	1.5	1.6	1.7
Gunnedah (NSW)	1.9	2.1	2.3	2.6	3.9	4.2	4.6	5.1	12.5	14.9	15.8	16.2	1.7	1.8	1.9	2.0
Gympie (QLD)	1.5	1.5	1.7	2.0	4.4	5.0	5.3	5.8	8.7	9.3	10.4	11.1	2.9	3.2	3.3	3.3
Inverell Res. Stn. (NSW)	1.7	1.8	2.0	2.2	3.9	4.0	4.2	4.8	11.8	12.8	14.0	15.5	2.3	2.4	2.5	2.7
Moree (NSW)	1.9	2.0	2.2	2.6	4.1	4.4	4.6	5.3	12.2	13.8	15.2	16.8	1.8	1.9	2.1	2.3
Narrabri (NSW)	2.0	2.0	2.2	2.6	4.2	4.4	4.7	5.3	13.1	14.0	14.8	16.5	2.4	2.6	2.6	2.8
Tamworth (NSW)	2.1	2.2	2.3	2.6	3.8	3.9	4.1	4.8	10.7	11.1	11.8	12.6	1.7	1.7	1.8	2.0
Gatton (QLD)	1.9	1.9	2.1	2.3	4.8	5.1	5.5	5.9	10.1	9.9	10.6	11.7	2.0	2.2	2.3	2.5

North QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Ayr DPI Res. Stn. (QLD)	1.4	1.6	1.7	1.9	5.7	6.0	6.5	7.1	10.5	12.5	14.4	15.1	1.8	2.2	2.5	2.8
Emerald (QLD)	2.0	2.1	2.3	2.5	5.3	5.9	6.5	6.9	14.8	18.2	20.4	20.9	1.7	2.0	2.1	2.2
Mareeba (QLD)	1.5	1.5	1.5	1.7	7.8	7.6	8.2	9.0	8.7	10.8	11.8	12.2	2.6	3.4	3.8	4.2
Rockhampton (QLD)	1.4	1.6	1.7	2.0	4.5	4.9	5.0	5.6	10.9	13.7	14.6	14.7	1.3	1.4	1.5	1.6
St. Lawrence (QLD)	1.4	1.7	1.8	2.0	5.5	5.8	6.2	6.6	10.9	13.9	14.5	15.2	2.1	2.5	2.5	2.6
Woolshed (QLD)	2.1	2.4	2.4	2.6	5.7	5.8	6.1	6.7	11.2	13.3	14.5	16.3	2.5	2.9	3.2	3.5

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Albury (NSW)	2.2	2.4	2.6	2.8	5.1	5.1	5.1	6.2	14.3	16.0	16.9	17.7	1.8	1.9	2.0	2.0
Bendigo (VIC)	1.9	2.2	2.3	2.7	3.8	3.8	4.2	4.6	11.7	13.2	14.3	14.9	1.7	1.8	1.9	1.9
Charlton (VIC)	1.9	2.1	2.2	2.6	3.7	3.8	4.1	4.7	10.0	11.1	11.7	12.7	1.6	1.8	1.8	1.8
Clare High School (SA)	2.6	2.7	2.8	3.1	4.3	4.3	4.4	4.6	11.2	13.0	13.8	14.9	1.9	2.1	2.1	2.1
Deniliquin (NSW)	2.0	2.2	2.4	2.7	4.0	4.0	4.3	4.9	11.4	12.9	14.6	14.7	1.6	1.7	1.8	1.9
Griffith (NSW)	2.1	2.4	2.6	2.7	4.2	4.4	4.7	5.2	14.1	16.2	16.9	17.8	1.7	1.9	2.0	2.1
Hay (NSW)	2.8	2.9	2.9	3.3	4.0	4.2	4.4	5.2	16.4	17.4	18.2	19.3	1.7	1.9	2.0	2.1
Hopetoun (VIC)	2.1	2.2	2.3	2.8	3.5	3.7	4.0	4.5	9.4	11.1	11.5	13.0	1.5	1.6	1.8	1.9
Keith (Munkora) (SA)	2.4	2.7	2.8	3.3	3.7	4.0	4.1	4.3	9.9	12.5	12.9	15.2	1.5	1.7	1.8	2.0
Kingscote (SA)	2.5	2.3	2.4	2.8	4.4	4.5	4.6	4.9	10.9	11.2	12.2	13.6	1.9	1.9	2.0	2.1
Lameroo (SA)	2.3	2.5	2.6	3.1	3.7	3.8	4.0	4.2	11.0	13.2	13.5	15.7	1.6	1.7	1.9	2.0
Longerenong (VIC)	1.8	2.2	2.2	2.7	3.5	3.6	3.7	4.4	9.1	10.8	11.1	12.8	1.6	1.7	1.9	1.9
Minlaton (SA)	2.0	2.1	2.4	2.8	4.6	4.7	4.8	4.9	12.1	13.2	14.7	16.9	2.4	2.5	2.7	2.8
Nhill (VIC)	2.0	2.2	2.3	2.8	3.5	3.7	3.8	4.3	8.5	10.0	10.5	12.5	1.8	1.9	2.1	2.2
Padthaway (SA)	2.0	2.2	2.5	3.0	4.1	4.2	4.3	4.7	9.5	11.5	12.1	14.3	1.5	1.7	1.7	1.9
Parafield (SA)	2.1	2.3	2.6	3.0	4.5	4.6	4.7	4.9	9.7	11.5	12.5	14.3	2.1	2.2	2.3	2.3

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Shepparton (VIC)	1.8	2.0	2.3	2.7	3.9	4.0	4.4	5.0	11.1	12.8	14.4	14.6	1.6	1.8	1.9	2.0
Snowtown (SA)	2.7	2.8	2.9	3.3	4.6	4.7	4.8	4.9	12.6	14.6	15.2	16.6	1.9	2.1	2.1	2.3
Stawell (VIC)	1.7	1.9	2.0	2.5	3.8	3.9	4.0	4.6	9.5	10.6	11.1	12.3	1.9	2.0	2.1	2.1
Strathalbyn (SA)	1.8	1.9	2.2	2.8	4.4	4.6	4.5	5.0	9.5	11.4	12.7	15.3	1.7	1.8	1.9	2.0
Swan Hill (VIC)	2.1	2.2	2.2	2.7	3.9	4.1	4.3	5.2	10.9	12.2	12.7	13.4	1.5	1.7	1.8	1.9
Temora (NSW)	2.1	2.4	2.4	2.7	3.7	3.8	4.1	4.8	12.9	14.3	14.9	15.5	1.7	1.8	1.9	2.1
Wagga Wagga (NSW)	1.7	2.1	2.2	2.4	4.0	4.3	4.4	4.9	10.6	12.2	13.2	14.1	1.7	1.9	2.0	2.1
Wangaratta (VIC)	2.4	2.6	2.8	3.0	4.4	4.4	4.6	5.3	13.7	14.5	15.7	15.9	1.9	2.0	2.0	2.2
West Wyalong (NSW)	2.3	2.6	2.7	2.8	4.2	4.4	4.7	5.2	15.2	17.1	17.9	17.7	1.7	1.9	2.0	2.0
Yanco Agr. Inst. (NSW)	1.9	2.2	2.5	2.6	4.2	4.6	4.6	5.2	11.9	13.8	15.3	15.8	1.6	1.7	1.8	1.9
Yarrawonga (VIC)	2.0	2.3	2.5	2.8	3.7	4.1	4.2	4.9	11.1	12.6	14.1	14.5	1.6	1.7	1.8	2.0
Young (NSW)	2.9	3.2	3.3	3.3	4.3	4.4	4.6	5.2	17.1	18.9	20.5	19.5	2.0	2.2	2.2	2.2

Southwest WA	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Bridgetown (WA)	3.4	3.5	3.6	3.8	9.2	9.0	9.1	9.4	15.0	16.3	17.0	17.1	2.3	2.4	2.5	2.5
Collie East (WA)	3.2	3.3	3.4	3.6	8.1	8.1	8.1	8.3	13.8	14.3	14.7	15.4	2.5	2.6	2.7	2.8
Cunderdin (WA)	3.8	3.9	3.9	4.3	8.4	8.6	8.6	8.8	14.3	14.4	15.2	15.8	1.8	1.9	2.1	2.1
Dalwallinu (WA)	3.8	4.0	4.1	4.3	8.7	8.8	8.9	8.9	15.7	16.5	17.0	18.1	2.2	2.3	2.4	2.5
Esperance (WA)	3.6	3.7	3.7	3.7	8.1	8.2	8.3	8.1	18.0	19.1	19.4	18.8	2.0	2.1	2.2	2.3
Katanning (WA)	3.5	3.5	3.6	3.5	8.0	8.0	8.0	8.0	15.0	16.1	16.2	16.0	1.7	1.8	1.9	2.0
Morawa (WA)	3.7	3.9	4.1	4.3	9.2	9.3	9.4	9.6	13.5	15.0	15.5	16.8	2.0	2.1	2.2	2.2
Newdegate Res. Stn. (WA)	4.1	4.1	4.2	4.2	7.6	7.6	7.8	7.6	16.5	17.7	17.8	18.1	2.1	2.1	2.2	2.2
Rocky Gully (WA)	2.8	2.9	3.0	3.1	7.6	7.6	7.6	7.6	12.0	13.1	13.3	14.0	1.6	1.6	1.7	1.7
Salmon Gums (WA)	3.6	3.7	3.8	4.0	7.3	7.3	7.5	7.5	14.6	15.8	16.6	17.1	2.2	2.3	2.3	2.4
Southern Cross (WA)	3.1	3.4	3.5	3.7	7.3	7.6	7.8	7.8	12.9	13.4	13.7	14.9	1.8	1.9	2.1	2.1
Wandering (WA)	3.3	3.3	3.4	3.6	7.7	7.7	7.7	7.8	13.1	13.9	14.2	15.2	2.0	2.1	2.1	2.2

Individual sites	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Avalon (VIC)	1.9	2.1	2.2	2.6	3.7	4.0	3.8	4.5	12.0	13.1	13.6	14.4	2.3	2.3	2.4	2.4
Casterton (VIC)	1.9	2.1	2.5	3.0	3.8	3.9	4.3	4.6	10.1	11.5	13.0	15.0	1.4	1.5	1.7	1.8
Cessnock (NSW)	1.8	2.1	2.3	2.5	4.0	4.3	4.3	4.8	10.3	11.3	11.9	12.2	1.4	1.6	1.6	1.7
Cleve (SA)	1.8	2.0	2.5	2.8	4.5	4.6	4.7	4.7	10.3	11.9	13.9	16.0	1.8	1.9	2.1	2.2
Cobar (NSW)	2.1	2.3	2.4	2.6	4.6	5.0	5.0	5.4	13.2	15.3	15.8	17.3	2.0	2.1	2.1	2.1
Darwin (NT)	2.0	2.3	2.3	2.4	7.4	7.6	7.8	8.2	10.5	12.0	12.7	12.5	2.0	1.9	2.1	2.7
Ferny Creek (Dunns Hill) (VIC)	2.9	3.1	3.1	3.4	3.9	3.9	4.2	4.6	15.4	15.9	16.8	17.8	2.4	2.4	2.4	2.4
Hamilton (VIC)	2.1	2.3	2.6	3.1	3.5	3.6	4.0	4.3	12.5	13.6	15.3	17.3	1.9	1.9	2.0	2.2
Minnipa (SA)	2.3	2.4	2.6	3.0	4.7	4.7	4.8	4.9	11.8	12.5	13.0	15.4	1.6	1.7	1.8	2.0
Mt. Ginini (NSW)	4.2	4.1	4.2	4.2	4.1	4.0	4.1	4.4	19.7	19.8	20.7	20.6	1.7	1.7	1.9	2.0
Port Augusta (SA)	2.2	2.3	2.4	2.7	4.9	5.0	5.2	5.3	12.5	13.3	14.3	15.0	2.1	2.3	2.4	2.5
Walgett (NSW)	2.4	2.5	2.8	3.2	4.7	5.0	5.6	5.7	17.2	19.4	21.1	22.1	1.8	2.1	2.2	2.3
Warra (TAS)	29.4	29.7	29.7	30.8	4.0	4.4	4.6	4.8	63.4	109.1	110.1	115.8	2.0	2.0	2.1	2.1

MAE

Central NSW	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Condobolin (NSW)	1.7	1.9	2.1	2.2	3.5	3.6	3.7	4.1	11.4	12.4	13.1	13.3	1.5	1.6	1.7	1.7
Coonamble (NSW)	1.9	2.1	2.3	2.5	2.9	3.2	3.6	3.9	14.9	17.0	18.3	19.7	1.4	1.5	1.6	1.6
Cowra (NSW)	1.4	1.7	1.8	2.0	2.8	3.1	3.1	3.5	9.1	10.3	11.3	11.7	1.3	1.5	1.5	1.5
Dubbo (NSW)	1.4	1.6	1.8	2.0	2.3	2.6	2.9	3.3	9.6	11.7	13.1	13.8	1.3	1.4	1.5	1.6
Forbes (NSW)	1.9	2.1	2.1	2.3	3.4	3.8	3.8	4.3	9.6	10.9	11.7	12.5	1.8	2.0	2.0	2.1
Mudgee (NSW)	1.6	1.9	2.0	2.1	3.2	3.4	3.5	3.8	12.4	13.7	14.4	14.7	1.4	1.5	1.6	1.6
Orange (NSW)	1.8	1.9	2.0	2.2	3.7	3.9	3.9	4.4	8.8	11.0	11.2	12.0	1.5	1.6	1.6	1.7
Parkes (NSW)	1.6	1.7	1.8	2.0	2.2	2.3	2.4	3.1	12.3	12.2	13.2	13.9	1.7	1.8	1.8	1.9
Scone (NSW)	1.8	2.0	2.1	2.2	3.2	3.3	3.5	3.8	9.2	10.6	11.2	11.7	2.0	2.2	2.2	2.3
Trangie Res. Stn. (NSW)	1.7	1.9	2.1	2.2	2.7	2.9	3.1	3.6	11.2	13.0	14.1	15.1	1.4	1.5	1.5	1.6

Central QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Applethorpe (QLD)	1.1	1.2	1.3	1.5	3.4	3.7	3.9	4.3	6.6	7.2	7.7	8.7	3.1	3.5	3.6	3.8
Dalby (QLD)	1.3	1.5	1.6	1.8	2.5	2.9	3.2	3.5	7.3	8.4	8.8	9.8	1.4	1.6	1.7	1.8
Gayndah (QLD)	1.4	1.3	1.4	1.6	3.2	3.6	4.0	4.3	7.1	6.6	7.2	8.4	2.3	2.7	2.8	2.8
Inglewood Forest (QLD)	1.6	1.7	1.7	1.9	2.5	2.7	3.0	3.4	8.7	10.0	10.5	11.7	1.3	1.4	1.5	1.6
Kingaroy (QLD)	1.2	1.4	1.6	1.7	4.1	4.5	4.8	5.2	6.7	7.7	8.4	9.4	2.1	2.4	2.5	2.5
Miles (QLD)	1.8	1.8	1.9	2.1	3.8	4.2	4.6	4.9	10.2	11.2	12.0	12.4	2.1	2.3	2.4	2.4
Oakey (QLD)	1.5	1.6	1.8	1.9	2.5	2.9	3.1	3.5	6.6	7.2	7.7	8.4	1.5	1.5	1.6	1.8
Roma (QLD)	2.3	2.4	2.5	2.6	3.1	3.6	3.8	4.3	13.6	16.4	17.3	17.1	1.5	1.6	1.8	1.8
St. George (QLD)	1.7	1.8	1.9	2.1	3.2	3.7	4.0	4.3	12.2	14.0	14.9	15.3	1.6	1.7	1.9	2.0
Toowoomba (QLD)	1.5	1.5	1.6	1.7	2.9	2.9	3.0	3.4	8.9	9.7	10.0	10.6	2.9	2.7	2.7	2.7
Warwick (QLD)	1.5	1.6	1.7	1.8	5.1	5.3	5.6	5.9	9.2	9.5	9.8	10.8	2.1	2.5	2.7	2.7

Northern NSW/SEQ	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Amberley (QLD)	1.4	1.5	1.6	1.7	3.4	3.7	4.0	4.4	6.8	7.2	7.9	8.3	1.5	1.8	1.9	2.0
Armidale (NSW)	1.3	1.4	1.6	1.7	2.0	2.1	2.3	2.7	8.5	9.5	9.9	10.4	1.3	1.3	1.4	1.6
Casino (NSW)	1.9	2.0	2.0	2.0	3.2	3.4	3.6	4.0	8.4	8.7	8.8	9.3	1.2	1.4	1.5	1.6
Glen Innes (NSW)	1.6	1.6	1.6	1.7	2.8	3.0	3.2	3.6	8.3	7.9	7.9	8.7	1.1	1.2	1.3	1.3
Grafton Res. Stn. (NSW)	1.3	1.4	1.6	1.7	2.0	2.0	2.1	2.5	7.0	7.5	8.0	8.8	1.3	1.4	1.6	1.8
Gunnedah (NSW)	1.5	1.5	1.7	1.8	3.5	3.7	4.1	4.4	7.4	7.2	7.9	8.4	1.5	1.7	1.8	2.0
Gympie (QLD)	1.4	1.6	1.7	1.9	2.6	2.8	3.2	3.6	9.1	11.1	11.9	12.2	1.3	1.4	1.5	1.5
Inverell Res. Stn. (NSW)	1.2	1.2	1.3	1.4	3.1	3.6	3.8	4.2	6.5	6.7	7.5	8.0	2.5	2.8	2.9	2.8
Moree (NSW)	1.3	1.4	1.5	1.7	2.6	2.7	2.9	3.3	9.2	10.2	11.0	12.0	1.9	2.0	2.0	2.2
Narrabri (NSW)	1.4	1.5	1.6	1.9	2.7	3.0	3.2	3.7	9.2	10.7	11.6	12.7	1.4	1.5	1.6	1.8
Tamworth (NSW)	1.7	1.8	1.9	2.1	2.8	3.1	3.3	3.6	9.7	10.6	11.2	12.1	1.8	1.9	2.0	2.1
Gatton (QLD)	1.6	1.7	1.9	2.0	2.4	2.5	2.7	3.2	8.3	8.5	9.0	9.4	1.3	1.3	1.4	1.6

North QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Ayr DPI Res. Stn. (QLD)	1.1	1.2	1.3	1.4	3.5	3.9	4.3	4.8	8.3	9.7	11.2	11.8	1.4	1.8	2.0	2.2
Emerald (QLD)	1.5	1.5	1.7	1.8	3.5	4.2	4.7	5.0	10.8	14.0	15.8	16.1	1.3	1.5	1.6	1.7
Mareeba (QLD)	1.2	1.1	1.1	1.2	5.3	5.5	5.9	6.5	6.6	7.9	8.8	9.1	2.1	2.8	3.2	3.4
Rockhampton (QLD)	1.1	1.2	1.3	1.4	2.9	3.3	3.5	3.9	8.3	10.3	11.2	11.5	1.0	1.1	1.2	1.3
St. Lawrence (QLD)	1.0	1.2	1.3	1.4	4.0	4.3	4.6	4.9	8.2	10.4	11.0	11.5	1.7	2.0	2.0	2.2
Woolshed (QLD)	1.7	1.8	1.9	2.0	3.6	3.7	4.1	4.6	7.7	9.1	10.3	11.8	2.1	2.5	2.8	2.9

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Albury (NSW)	1.7	1.9	2.0	2.1	3.4	3.4	3.4	4.1	10.5	12.0	12.7	13.6	1.5	1.6	1.6	1.6
Bendigo (VIC)	1.4	1.7	1.7	2.0	2.3	2.3	2.6	2.9	8.5	9.7	10.5	10.9	1.3	1.4	1.5	1.6
Charlton (VIC)	1.5	1.6	1.7	2.0	2.1	2.2	2.5	2.9	7.1	7.9	8.6	9.2	1.3	1.4	1.4	1.4
Clare High School (SA)	2.0	2.1	2.2	2.3	2.5	2.6	2.7	2.9	8.2	9.3	10.0	10.6	1.5	1.7	1.7	1.7
Deniliquin (NSW)	1.6	1.7	1.8	2.1	2.4	2.5	2.7	3.1	8.2	9.4	10.7	10.9	1.3	1.3	1.4	1.5
Griffith (NSW)	1.6	1.8	2.0	2.1	2.5	2.7	3.0	3.3	9.8	11.2	11.7	12.8	1.4	1.5	1.5	1.7
Hay (NSW)	1.7	1.7	1.8	2.1	2.1	2.2	2.4	2.8	6.7	7.9	8.4	9.5	1.2	1.3	1.4	1.5
Hopetoun (VIC)	2.2	2.3	2.3	2.6	2.5	2.6	2.9	3.3	12.1	13.0	13.6	14.6	1.4	1.5	1.6	1.7
Keith (Munkora) (SA)	1.9	2.1	2.2	2.6	2.2	2.4	2.5	2.7	7.3	9.1	9.2	10.6	1.2	1.4	1.4	1.6
Kingscote (SA)	1.7	1.6	1.8	2.0	2.7	2.8	2.9	3.1	8.3	8.5	9.2	10.4	1.4	1.5	1.6	1.7
Lameroo (SA)	1.5	1.7	1.7	2.1	2.0	2.1	2.3	2.7	6.5	7.7	8.1	9.4	1.2	1.3	1.4	1.5
Longerenong (VIC)	1.8	2.0	2.1	2.4	2.1	2.2	2.3	2.6	8.0	9.5	9.8	10.9	1.3	1.3	1.4	1.5
Minlaton (SA)	2.1	2.4	2.5	2.5	2.7	2.9	3.0	3.4	12.9	14.5	15.8	15.2	1.5	1.7	1.7	1.7
Nhill (VIC)	1.6	1.7	1.8	2.1	2.0	2.1	2.3	2.7	6.3	7.3	7.8	9.0	1.4	1.5	1.6	1.7
Padthaway (SA)	1.6	1.7	2.0	2.3	2.7	2.8	2.9	3.1	6.8	8.0	8.6	10.2	1.7	1.7	1.8	1.9
Parafield (SA)	1.5	1.7	1.9	2.2	2.3	2.4	2.5	2.9	6.8	8.3	8.8	10.0	1.2	1.3	1.4	1.5

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Shepparton (VIC)	1.4	1.6	1.7	2.0	2.3	2.5	2.7	3.2	8.1	9.3	10.5	10.8	1.3	1.4	1.5	1.6
Snowtown (SA)	1.3	1.4	1.6	2.0	2.7	2.8	2.9	3.3	6.9	8.3	9.2	10.8	1.4	1.5	1.5	1.6
Stawell (VIC)	2.0	2.2	2.3	2.5	2.8	2.8	2.9	3.1	8.9	10.4	10.6	11.5	1.5	1.6	1.7	1.8
Strathalbyn (SA)	1.3	1.4	1.5	1.9	2.2	2.3	2.4	2.8	7.2	8.0	8.3	9.4	1.4	1.5	1.6	1.6
Swan Hill (VIC)	1.7	1.7	1.8	2.1	2.3	2.4	2.6	3.2	7.8	8.7	9.2	9.9	1.2	1.3	1.4	1.4
Temora (NSW)	1.6	1.8	1.8	2.0	2.3	2.4	2.6	3.1	9.0	10.0	10.6	11.1	1.3	1.4	1.5	1.6
Wagga Wagga (NSW)	1.3	1.6	1.7	1.8	2.4	2.6	2.7	3.2	8.0	9.1	9.9	10.4	1.3	1.5	1.5	1.7
Wangaratta (VIC)	1.9	2.1	2.2	2.4	2.7	2.8	3.0	3.4	10.8	11.4	12.1	12.2	1.5	1.6	1.6	1.7
West Wyalong (NSW)	1.8	2.0	2.1	2.2	2.7	2.8	3.1	3.4	11.1	12.4	13.1	12.9	1.4	1.5	1.5	1.6
Yanco Agr. Inst. (NSW)	1.5	1.5	1.7	2.0	2.8	2.8	3.0	3.1	8.5	9.3	9.9	11.5	2.0	2.1	2.2	2.3
Yarrawonga (VIC)	1.5	1.7	1.9	2.0	2.6	2.9	3.1	3.4	8.6	9.9	10.9	11.5	1.2	1.3	1.4	1.5
Young (NSW)	1.6	1.8	1.9	2.1	2.2	2.5	2.6	3.1	8.5	9.4	10.4	10.6	1.2	1.4	1.4	1.6

Southwest WA	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Bridgetown (WA)	2.7	2.8	2.9	3.0	6.1	5.9	6.1	6.3	11.7	12.9	13.4	13.4	1.9	2.0	2.1	2.1
Collie East (WA)	2.6	2.7	2.7	2.8	5.1	5.1	5.1	5.4	10.3	10.7	11.1	11.7	2.1	2.2	2.3	2.3
Cunderdin (WA)	3.3	3.3	3.3	3.5	5.6	5.9	5.9	6.1	10.8	10.9	11.1	11.8	1.4	1.5	1.6	1.6
Dalwallinu (WA)	3.2	3.4	3.5	3.5	5.8	5.8	6.0	6.0	11.8	12.4	12.7	13.5	1.8	1.8	1.9	2.0
Esperance (WA)	2.9	3.0	3.0	2.9	5.4	5.5	5.5	5.6	13.9	14.6	14.8	14.1	1.6	1.7	1.7	1.8
Katanning (WA)	2.9	2.9	2.9	2.8	5.0	5.1	5.1	5.2	11.7	12.2	12.3	12.4	1.4	1.5	1.5	1.6
Morawa (WA)	3.1	3.3	3.3	3.5	6.4	6.5	6.7	6.9	10.1	11.1	11.5	12.3	1.6	1.7	1.7	1.8
Newdegate Res. Stn. (WA)	3.4	3.4	3.4	3.4	4.7	4.7	4.9	4.8	12.6	13.4	13.2	13.6	1.7	1.7	1.8	1.8
Rocky Gully (WA)	2.3	2.3	2.3	2.4	4.7	4.8	4.8	4.9	9.2	9.7	10.1	10.3	1.3	1.3	1.4	1.4
Salmon Gums (WA)	3.0	3.0	3.1	3.2	4.6	4.6	4.8	4.8	11.3	12.0	12.6	12.9	1.7	1.8	1.8	1.9
Southern Cross (WA)	2.6	2.7	2.7	2.9	4.8	5.0	5.2	5.2	9.4	10.1	10.1	11.0	1.4	1.5	1.6	1.6
Wandering (WA)	2.7	2.7	2.8	2.9	4.8	4.8	4.9	5.1	10.2	10.9	11.1	11.7	1.6	1.7	1.7	1.7

Individual Sites	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Avalon (VIC)	1.4	1.5	1.6	1.9	2.3	2.4	2.4	2.9	8.6	9.3	10.0	10.8	1.9	1.9	1.9	2.0
Casterton (VIC)	1.6	1.8	1.9	2.0	3.1	3.4	3.4	3.8	9.5	10.8	11.3	12.5	1.5	1.6	1.7	1.6
Cessnock (NSW)	1.4	1.6	1.8	1.9	2.7	2.8	2.9	3.4	7.9	8.5	9.0	9.0	1.1	1.2	1.2	1.3
Cleve (SA)	1.5	1.6	1.9	2.2	2.4	2.5	2.7	2.9	7.6	8.6	9.7	10.9	1.1	1.2	1.3	1.4
Cobar (NSW)	1.3	1.4	1.7	1.9	2.8	2.9	3.0	3.1	7.4	8.5	9.9	11.4	1.5	1.6	1.7	1.8
Darwin (NT)	2.5	2.5	2.6	2.7	2.5	2.5	2.8	3.0	12.1	12.5	13.5	14.1	2.0	2.0	2.0	1.9
Ferny Creek (Dunns Hill) (VIC)	1.4	1.7	1.8	1.8	5.0	5.3	5.7	5.9	7.7	8.6	9.0	9.2	1.5	1.5	1.6	1.9
Hamilton (VIC)	1.6	1.8	1.9	2.3	2.0	2.1	2.4	2.6	9.3	9.8	11.1	12.3	1.4	1.5	1.6	1.7
Minnipa (SA)	3.7	3.6	3.6	3.6	2.6	2.5	2.6	2.9	15.2	14.9	15.4	15.3	1.3	1.3	1.4	1.5
Mt. Ginini (NSW)	1.7	1.7	1.8	2.1	2.8	2.8	2.9	3.1	8.2	8.3	8.5	10.5	1.3	1.3	1.4	1.5
Port Augusta (SA)	1.5	1.7	1.8	1.9	3.0	3.1	3.3	3.5	8.4	9.3	10.1	10.6	1.7	1.8	1.9	2.0
Walgett (NSW)	1.8	1.9	2.2	2.4	3.3	3.6	4.0	4.1	13.1	15.2	16.7	17.2	1.4	1.6	1.7	1.8
Warra (TAS)	4.9	5.2	5.2	5.7	2.0	2.2	2.3	2.5	10.0	10.1	10.4	11.3	1.5	1.5	1.6	1.6

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Central NSW	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Condobolin (NSW)	0.95	0.94	0.93	0.91	0.95	0.95	0.94	0.93	0.87	0.84	0.83	0.82	0.76	0.69	0.65	0.61
Coonamble (NSW)	0.92	0.91	0.89	0.87	0.97	0.96	0.96	0.95	0.81	0.77	0.74	0.70	0.76	0.71	0.66	0.64
Cowra (NSW)	0.96	0.94	0.94	0.92	0.97	0.96	0.96	0.95	0.90	0.86	0.83	0.82	0.76	0.71	0.70	0.66
Dubbo (NSW)	0.96	0.94	0.92	0.90	0.97	0.97	0.97	0.96	0.89	0.83	0.80	0.77	0.78	0.76	0.72	0.67
Forbes (NSW)	0.95	0.94	0.93	0.91	0.96	0.95	0.95	0.94	0.85	0.81	0.79	0.78	0.76	0.71	0.67	0.63
Mudgee (NSW)	0.93	0.91	0.90	0.87	0.95	0.94	0.94	0.93	0.89	0.86	0.83	0.80	0.70	0.66	0.65	0.58
Orange (NSW)	0.94	0.93	0.93	0.90	0.96	0.96	0.95	0.93	0.86	0.85	0.82	0.79	0.76	0.74	0.72	0.64
Parkes (NSW)	0.94	0.93	0.92	0.90	0.96	0.95	0.95	0.94	0.88	0.84	0.82	0.81	0.69	0.64	0.62	0.58
Scone (NSW)	0.94	0.93	0.93	0.90	0.95	0.95	0.95	0.94	0.91	0.86	0.84	0.80	0.79	0.77	0.75	0.70
Trangie Res. Stn. (NSW)	0.94	0.93	0.91	0.89	0.97	0.96	0.96	0.95	0.87	0.82	0.79	0.76	0.73	0.69	0.66	0.60

Central QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Applethorpe (QLD)	0.96	0.95	0.95	0.93	0.95	0.95	0.94	0.93	0.94	0.92	0.91	0.88	0.40	0.36	0.34	0.31
Dalby (QLD)	0.96	0.95	0.95	0.93	0.98	0.97	0.96	0.96	0.93	0.92	0.91	0.88	0.78	0.72	0.70	0.65
Gayndah (QLD)	0.95	0.95	0.95	0.92	0.96	0.96	0.95	0.94	0.94	0.94	0.93	0.90	0.59	0.52	0.50	0.50
Inglewood Forest (QLD)	0.95	0.94	0.94	0.91	0.98	0.97	0.97	0.96	0.91	0.89	0.88	0.84	0.65	0.61	0.57	0.52
Kingaroy (QLD)	0.96	0.95	0.94	0.92	0.95	0.94	0.93	0.92	0.95	0.93	0.91	0.89	0.62	0.56	0.52	0.50
Miles (QLD)	0.93	0.93	0.92	0.91	0.96	0.95	0.94	0.93	0.87	0.85	0.83	0.82	0.54	0.50	0.47	0.46
Oakey (QLD)	0.95	0.94	0.93	0.92	0.98	0.97	0.96	0.96	0.94	0.93	0.92	0.91	0.78	0.74	0.70	0.66
Roma (QLD)	0.90	0.89	0.89	0.87	0.97	0.96	0.95	0.94	0.81	0.76	0.74	0.73	0.72	0.68	0.63	0.61
St. George (QLD)	0.93	0.92	0.91	0.89	0.96	0.95	0.94	0.93	0.83	0.80	0.78	0.75	0.68	0.62	0.59	0.54
Toowoomba (QLD)	0.93	0.92	0.92	0.90	0.97	0.97	0.97	0.96	0.90	0.89	0.88	0.85	0.56	0.57	0.56	0.55
Warwick (QLD)	0.95	0.94	0.94	0.92	0.91	0.91	0.90	0.89	0.86	0.86	0.85	0.82	0.61	0.55	0.52	0.48

Northern NSW/SEQ	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Amberley (QLD)	0.95	0.95	0.93	0.92	0.96	0.96	0.95	0.94	0.94	0.92	0.90	0.89	0.74	0.67	0.64	0.60
Armidale (NSW)	0.95	0.94	0.93	0.91	0.97	0.97	0.96	0.95	0.89	0.86	0.85	0.82	0.81	0.80	0.77	0.70
Casino (NSW)	0.90	0.89	0.89	0.87	0.96	0.96	0.96	0.95	0.89	0.87	0.87	0.84	0.79	0.73	0.68	0.65
Glen Innes (NSW)	0.95	0.94	0.93	0.92	0.98	0.97	0.97	0.96	0.92	0.91	0.89	0.87	0.84	0.81	0.77	0.72
Grafton Res. Stn. (NSW)	0.92	0.91	0.92	0.89	0.97	0.97	0.97	0.96	0.87	0.87	0.87	0.83	0.82	0.78	0.76	0.73
Gunnedah (NSW)	0.96	0.95	0.94	0.91	0.97	0.97	0.96	0.96	0.90	0.85	0.83	0.82	0.77	0.75	0.70	0.69
Gympie (QLD)	0.95	0.95	0.94	0.91	0.97	0.96	0.96	0.95	0.92	0.91	0.89	0.87	0.56	0.51	0.48	0.47
Inverell Res. Stn. (NSW)	0.96	0.95	0.94	0.93	0.97	0.97	0.97	0.96	0.90	0.88	0.86	0.83	0.59	0.56	0.53	0.49
Moree (NSW)	0.95	0.94	0.93	0.90	0.97	0.97	0.96	0.95	0.90	0.87	0.85	0.81	0.76	0.73	0.67	0.59
Narrabri (NSW)	0.95	0.95	0.94	0.91	0.97	0.97	0.96	0.95	0.86	0.85	0.83	0.79	0.67	0.63	0.60	0.57
Tamworth (NSW)	0.95	0.94	0.93	0.91	0.98	0.97	0.97	0.96	0.91	0.89	0.88	0.86	0.77	0.76	0.72	0.65
Gatton (QLD)	0.95	0.95	0.93	0.92	0.96	0.96	0.95	0.94	0.93	0.93	0.92	0.90	0.73	0.68	0.66	0.60

North QLD	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Ayr DPI Res. Stn. (QLD)	0.93	0.90	0.90	0.88	0.94	0.93	0.92	0.90	0.87	0.82	0.77	0.77	0.75	0.68	0.64	0.57
Emerald (QLD)	0.94	0.94	0.92	0.91	0.95	0.94	0.93	0.92	0.87	0.82	0.78	0.77	0.70	0.65	0.62	0.56
Mareeba (QLD)	0.93	0.94	0.93	0.92	0.90	0.91	0.90	0.88	0.91	0.87	0.84	0.84	0.62	0.51	0.46	0.42
Rockhampton (QLD)	0.95	0.93	0.92	0.90	0.96	0.96	0.95	0.94	0.88	0.82	0.80	0.81	0.77	0.74	0.70	0.65
St. Lawrence (QLD)	0.95	0.93	0.92	0.90	0.95	0.94	0.93	0.92	0.88	0.82	0.81	0.80	0.64	0.56	0.56	0.51
Woolshed (QLD)	0.85	0.83	0.82	0.80	0.94	0.94	0.94	0.92	0.85	0.80	0.77	0.74	0.44	0.37	0.32	0.30

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Albury (NSW)	0.96	0.94	0.94	0.92	0.95	0.95	0.95	0.93	0.86	0.81	0.80	0.77	0.69	0.66	0.63	0.60
Bendigo (VIC)	0.97	0.96	0.96	0.94	0.97	0.97	0.96	0.95	0.92	0.89	0.87	0.86	0.77	0.72	0.67	0.66
Charlton (VIC)	0.98	0.97	0.97	0.95	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.80	0.75	0.72	0.71
Clare High School (SA)	0.95	0.95	0.95	0.93	0.96	0.95	0.95	0.95	0.94	0.92	0.91	0.89	0.71	0.64	0.64	0.59
Deniliquin (NSW)	0.97	0.96	0.96	0.94	0.97	0.97	0.96	0.95	0.92	0.90	0.86	0.86	0.83	0.79	0.76	0.69
Griffith (NSW)	0.96	0.95	0.94	0.93	0.97	0.96	0.96	0.95	0.88	0.84	0.82	0.80	0.80	0.75	0.71	0.65
Hay (NSW)	0.94	0.94	0.94	0.92	0.97	0.97	0.96	0.95	0.86	0.84	0.83	0.81	0.81	0.75	0.73	0.66
Hopetoun (VIC)	0.97	0.97	0.96	0.95	0.97	0.97	0.97	0.96	0.95	0.93	0.92	0.90	0.84	0.82	0.76	0.74
Keith (Munkora) (SA)	0.97	0.96	0.95	0.93	0.97	0.96	0.96	0.96	0.95	0.93	0.92	0.89	0.86	0.81	0.78	0.74
Kingscote (SA)	0.93	0.95	0.94	0.92	0.95	0.95	0.95	0.94	0.90	0.90	0.89	0.86	0.83	0.82	0.79	0.77
Lameroo (SA)	0.97	0.96	0.96	0.94	0.97	0.97	0.96	0.96	0.94	0.92	0.91	0.88	0.83	0.80	0.77	0.71
Longerenong (VIC)	0.98	0.97	0.97	0.95	0.97	0.97	0.97	0.96	0.95	0.94	0.93	0.91	0.85	0.81	0.77	0.77
Minlaton (SA)	0.96	0.96	0.95	0.93	0.95	0.95	0.95	0.94	0.91	0.90	0.88	0.85	0.75	0.72	0.68	0.64
Nhill (VIC)	0.98	0.97	0.97	0.95	0.97	0.97	0.96	0.96	0.96	0.95	0.94	0.92	0.80	0.77	0.73	0.70
Padthaway (SA)	0.97	0.97	0.96	0.94	0.96	0.96	0.96	0.95	0.95	0.93	0.93	0.90	0.85	0.81	0.78	0.73
Parafield (SA)	0.96	0.95	0.95	0.93	0.96	0.96	0.95	0.95	0.94	0.91	0.89	0.86	0.73	0.69	0.65	0.63

Riverina	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Shepparton (VIC)	0.97	0.97	0.96	0.94	0.97	0.97	0.96	0.95	0.93	0.89	0.86	0.86	0.83	0.77	0.74	0.69
Snowtown (SA)	0.95	0.95	0.94	0.93	0.95	0.95	0.95	0.95	0.91	0.89	0.88	0.86	0.79	0.74	0.71	0.67
Stawell (VIC)	0.98	0.97	0.97	0.95	0.96	0.96	0.96	0.95	0.95	0.94	0.93	0.92	0.82	0.77	0.74	0.74
Strathalbyn (SA)	0.97	0.97	0.96	0.94	0.95	0.95	0.95	0.94	0.94	0.92	0.90	0.87	0.84	0.81	0.78	0.77
Swan Hill (VIC)	0.97	0.97	0.96	0.95	0.97	0.97	0.96	0.94	0.93	0.91	0.90	0.90	0.84	0.79	0.76	0.71
Temora (NSW)	0.96	0.94	0.95	0.93	0.97	0.97	0.97	0.96	0.88	0.85	0.84	0.83	0.80	0.77	0.72	0.66
Wagga Wagga (NSW)	0.97	0.96	0.95	0.94	0.97	0.96	0.96	0.95	0.92	0.89	0.88	0.86	0.80	0.76	0.73	0.67
Wangaratta (VIC)	0.95	0.94	0.93	0.92	0.96	0.96	0.96	0.95	0.89	0.86	0.84	0.83	0.77	0.73	0.71	0.65
West Wyalong (NSW)	0.95	0.94	0.93	0.92	0.97	0.96	0.96	0.95	0.87	0.83	0.82	0.82	0.78	0.72	0.68	0.64
Yanco Agr. Inst. (NSW)	0.97	0.96	0.94	0.93	0.97	0.96	0.96	0.95	0.91	0.88	0.85	0.84	0.82	0.77	0.74	0.68
Yarrawonga (VIC)	0.97	0.96	0.95	0.93	0.97	0.97	0.96	0.95	0.92	0.89	0.86	0.86	0.83	0.79	0.75	0.68
Young (NSW)	0.92	0.90	0.90	0.89	0.97	0.96	0.96	0.95	0.84	0.79	0.76	0.78	0.72	0.68	0.65	0.62

Southwest WA	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Bridgetown (WA)	0.92	0.91	0.90	0.89	0.84	0.84	0.84	0.83	0.89	0.87	0.86	0.85	0.60	0.56	0.54	0.53
Collie East (WA)	0.93	0.92	0.92	0.91	0.88	0.88	0.88	0.88	0.89	0.88	0.87	0.86	0.55	0.53	0.50	0.49
Cunderdin (WA)	0.89	0.89	0.88	0.87	0.88	0.87	0.87	0.87	0.85	0.86	0.84	0.83	0.77	0.73	0.69	0.67
Dalwallinu (WA)	0.88	0.87	0.86	0.85	0.87	0.87	0.86	0.86	0.86	0.86	0.84	0.83	0.69	0.68	0.65	0.61
Esperance (WA)	0.88	0.87	0.87	0.87	0.87	0.87	0.86	0.87	0.78	0.77	0.76	0.77	0.73	0.71	0.69	0.67
Katanning (WA)	0.91	0.91	0.91	0.91	0.86	0.86	0.86	0.86	0.88	0.86	0.86	0.87	0.77	0.74	0.71	0.69
Morawa (WA)	0.89	0.87	0.87	0.85	0.86	0.86	0.85	0.85	0.89	0.87	0.86	0.84	0.73	0.69	0.67	0.68
Newdegate Res. Stn. (WA)	0.89	0.89	0.88	0.88	0.88	0.88	0.87	0.88	0.85	0.84	0.84	0.83	0.70	0.68	0.65	0.65
Rocky Gully (WA)	0.93	0.93	0.92	0.91	0.87	0.87	0.87	0.87	0.92	0.90	0.90	0.89	0.71	0.71	0.65	0.65
Salmon Gums (WA)	0.91	0.90	0.90	0.89	0.88	0.88	0.87	0.87	0.89	0.88	0.86	0.86	0.67	0.64	0.62	0.59
Southern Cross (WA)	0.93	0.92	0.91	0.90	0.89	0.89	0.88	0.88	0.90	0.89	0.88	0.87	0.73	0.71	0.66	0.63
Wandering (WA)	0.92	0.92	0.92	0.91	0.88	0.88	0.88	0.88	0.89	0.88	0.88	0.86	0.68	0.66	0.66	0.63

Individual Sites	Temperature °C				Heat Load Index				Relative Humidity %				Wind Speed m/s			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Avalon (VIC)	0.97	0.96	0.95	0.93	0.97	0.96	0.96	0.95	0.89	0.87	0.86	0.84	0.78	0.76	0.74	0.74
Casterton (VIC)	0.97	0.97	0.96	0.94	0.96	0.96	0.95	0.95	0.94	0.93	0.91	0.88	0.86	0.81	0.78	0.74
Cessnock (NSW)	0.95	0.93	0.91	0.89	0.97	0.97	0.97	0.96	0.90	0.87	0.86	0.84	0.79	0.74	0.73	0.69
Cleve (SA)	0.97	0.97	0.95	0.94	0.95	0.95	0.95	0.95	0.94	0.92	0.90	0.87	0.80	0.76	0.73	0.70
Cobar (NSW)	0.96	0.95	0.94	0.92	0.96	0.95	0.95	0.95	0.89	0.86	0.85	0.82	0.74	0.70	0.67	0.66
Darwin (NT)	0.82	0.78	0.77	0.76	0.84	0.83	0.82	0.81	0.82	0.78	0.76	0.77	0.79	0.79	0.75	0.67
Ferny Creek (Dunns Hill) (VIC)	0.93	0.92	0.92	0.90	0.96	0.96	0.96	0.95	0.86	0.85	0.82	0.80	0.54	0.53	0.51	0.51
Hamilton (VIC)	0.97	0.96	0.95	0.93	0.97	0.96	0.96	0.95	0.93	0.92	0.89	0.86	0.82	0.79	0.75	0.72
Minnipa (SA)	0.97	0.97	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.93	0.93	0.90	0.81	0.79	0.76	0.70
Mt. Ginini (NSW)	0.80	0.80	0.78	0.77	0.91	0.91	0.90	0.89	0.68	0.67	0.64	0.61	0.79	0.78	0.74	0.69
Port Augusta (SA)	0.96	0.96	0.95	0.94	0.96	0.95	0.95	0.95	0.90	0.88	0.87	0.86	0.77	0.72	0.70	0.68
Walgett (NSW)	0.93	0.92	0.90	0.87	0.96	0.96	0.95	0.94	0.82	0.78	0.74	0.71	0.76	0.70	0.65	0.62
Warra (TAS)	0.10	0.10	0.10	0.09	0.93	0.91	0.90	0.90	0.20	0.08	0.07	0.07	0.73	0.73	0.74	0.70