



COLD STOP® CURTAIN
AUSTRALIAN STORE TRIAL RESULTS

DAIRY COOL ROOM Pre installation

- Room Size: 7120mm long X 5820mm wide X 3000mm high.
- Door Size: 2300mm wide by 2000mm high
- It is noted that this room has 7 display doors opening onto trading floor for milk
- Fitted with 2 Kirby Evaporators. No PVC strip curtains installed on this unit, room in good conditions
- Data capture prior to installation controller and product simulation probes in 15 secs increments from 16 October to 23 October – 8 days.
- Minutes door open per day prior during this period 314 minutes.



Pre Installation Cool Room Door – Internal View

DAIRY COOL ROOM Post Installation

- Installation time was just over 1 hour.
- Data capture following installation via control system and product simulation probes in 15 secs increments from 24 October to 7 November.
- Minutes door open per day prior during this period 308 minutes.
- No Cool room alarms were recorded during the trial period.



Post Installation Cool Room Door – Internal View

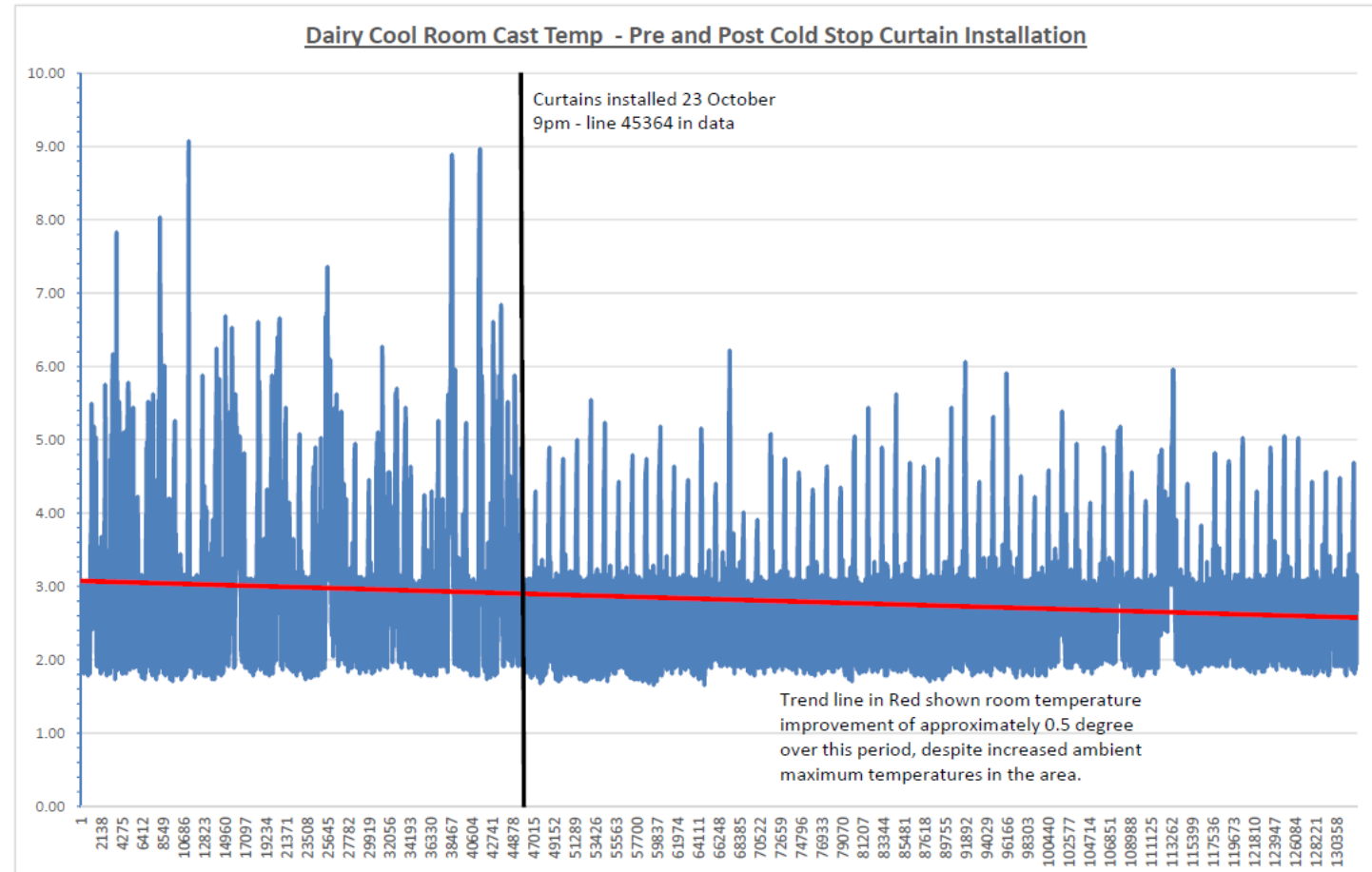
DAIRY COOL ROOM
Post Installation



Post Installation Cool Room Door – External View

DAIRY COOL ROOM Results – Room Temperature

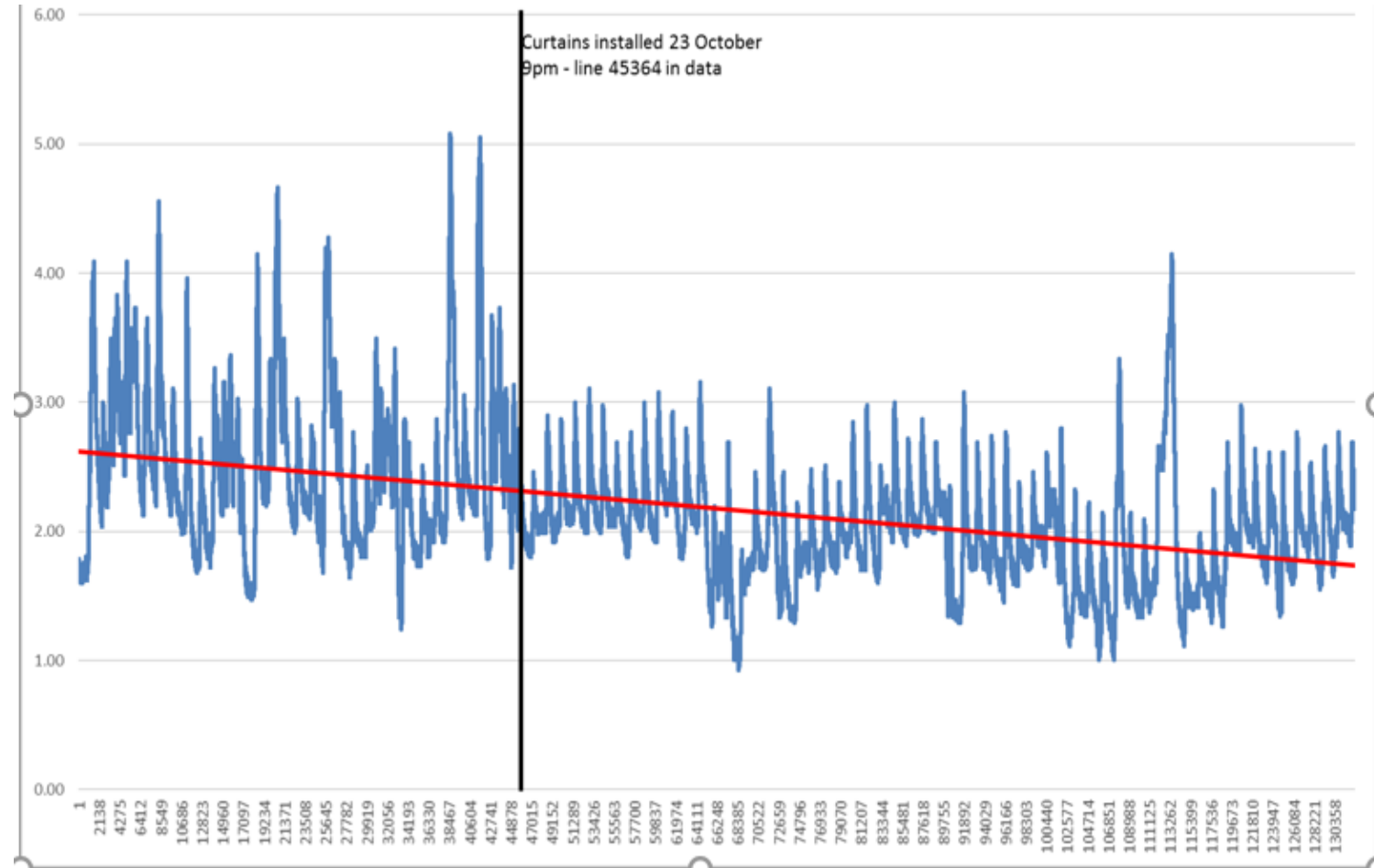
- Refer to Room Temp graphical results with 132,418 individual data points and trend line.
- An improvement in average room temperature of 0.42 degrees. Average room temperature pre installation was 3.10 degrees, post implementation was 2.68 degrees
- Significantly reduced the variability in room temperature. Range pre installation was 1.07 to 9.07 and post implementation 1.65 to 6.22.



DAIRY COOL ROOM

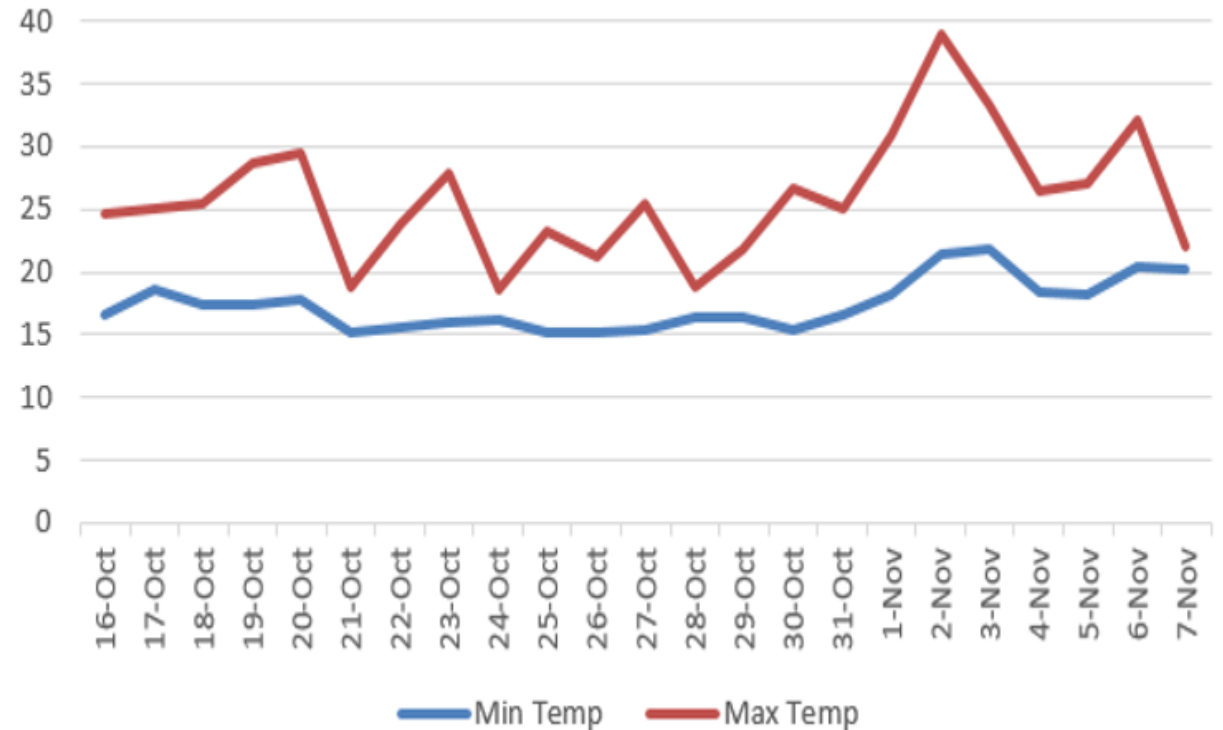
Results – Product Temperature

- Refer to Product Temp graphical results with 132,418 individual data points and trend line.
- An improvement in product temperature of 0.55 degrees as measured by product simulation probes. Average product temperature pre installation was 2.54 degrees, post implementation was 1.99 degrees
- Significantly reduced variability in range of product temperatures. Range pre installation was 1.24 to 5.08 and post implementation 0.93 to 4.14.



DAIRY COOL ROOM Ambient Temperature

- Max and min ambient temperature was recorded in the area during the trial and is shown in the attached graph.
- Average Min and max temperatures pre installation were 16.8 degrees and 25.5 degrees respectively.
- Average Min and max temperatures after installation were 17.7 degrees and 26.1 degrees respectively with the hottest temperature recorded being 38.9 degrees on November 2.



Summary:

Dairy Cool room

- Temperature compliance improved dramatically as a result of the installation as per below:
 - Room temperature reduced by 0.42 degrees and product temperature reduced 0.55 degrees.
 - The Room temperature range also reduced from a spread of 8 degrees down to 4.57 degrees – 42.8% improvement
 - The product temperature ranged 3.84 degrees to 3.21 degrees – 16.5% improvement
- Risk of stock loss has greatly reduced.
- Energy saving of \$3,072.84 per annum are forecast for this room as a result of reducing the cost of air infiltration before and after fitting - infiltration cost is the cost of the energy required to cool the warm air entering the cold room.
- Payback on investment in curtain is estimated to be 6.8 months with a carbon footprint reduction of approximately 11,100kgs.