

TECHNICAL ASPECTS OF DRY AGEING



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Successful Dry Ageing Has 3 Points Of Focus

Focus 1. Chamber construction & equipment

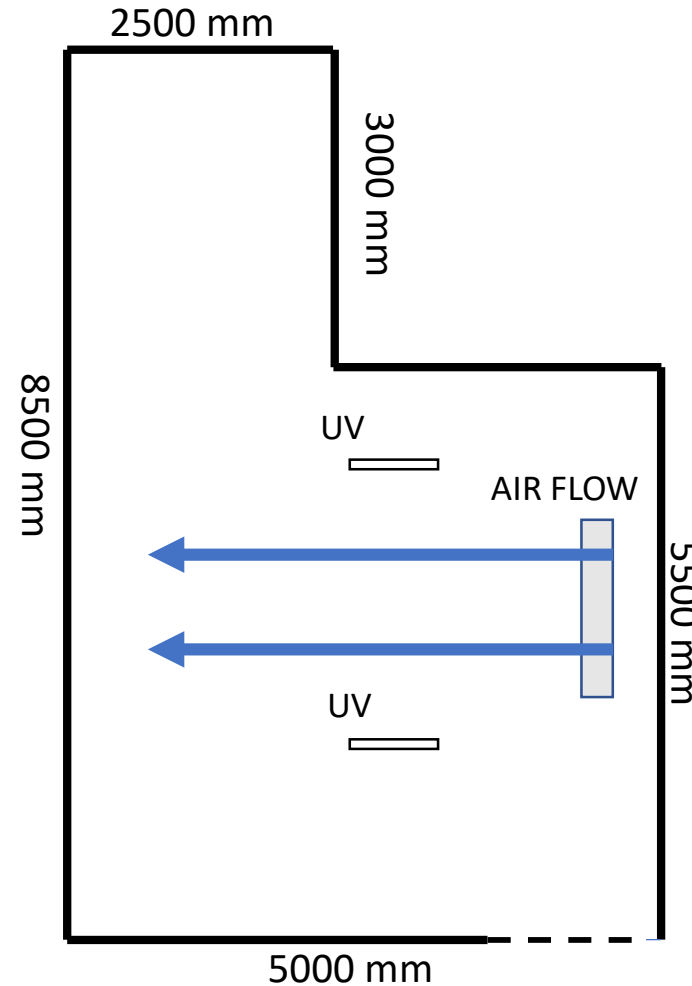
- Air flow
- Air velocity
- Temperature control/variance
- Relative humidity
- Product spacing

We examined 2 commercial chambers

Focus 1. Construction and equipment

Chiller 1 details

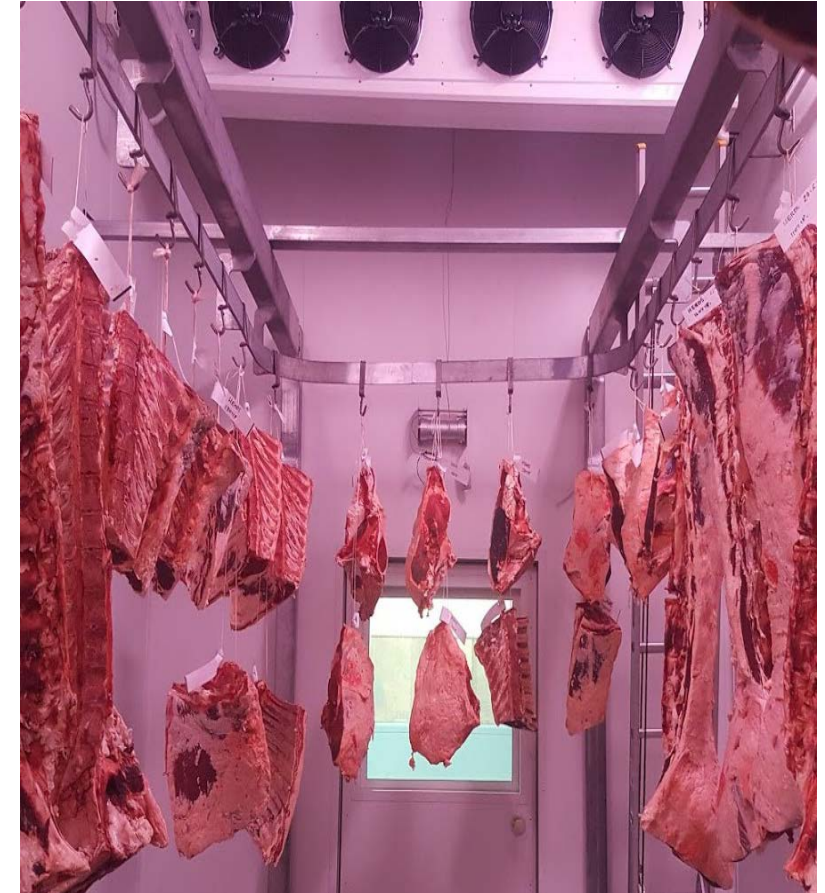
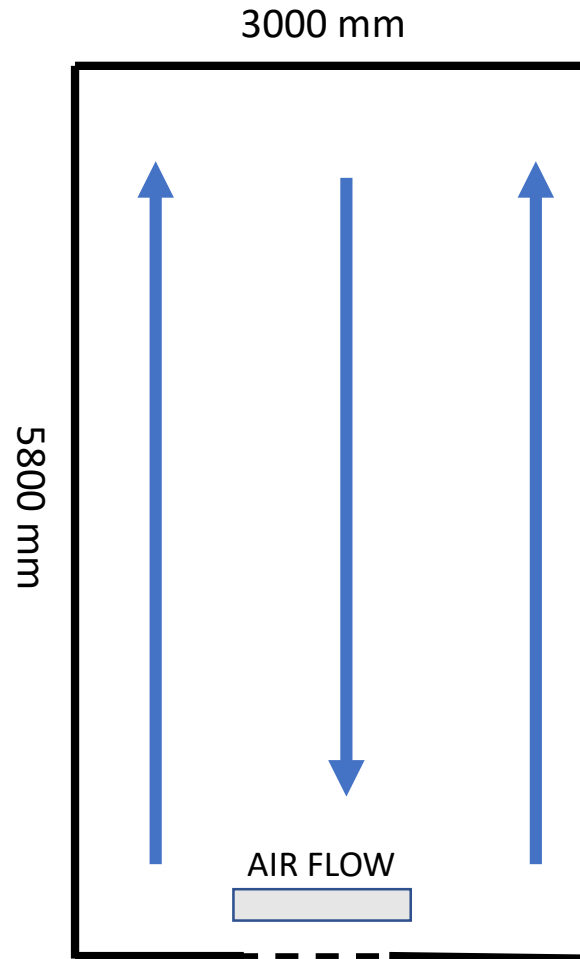
- Retro fit existing chiller
- Odd shape reduces efficient air flow
- Racks used to store product
- Temp range 1.3 C – 4.1 C
Avg 2.1 C
- Air velocity range fixed 0.75 m/sec – 1.2 m/sec
- Relative humidity range fixed 53% - 100% Avg 89%
- UV lights position
- Use existing refrigeration



Focus 1. Construction and equipment

Chiller 2 details

- Independent refrigeration
- Oblong shape for efficient air flow
- Hanging storage of product
- Temp range -1.0 deg C – 1.0 deg C Avg 0.1 deg C
- Relative humidity variable 65% - 100%
- Air velocity variable 0.1 m/sec – 3.5 m/sec



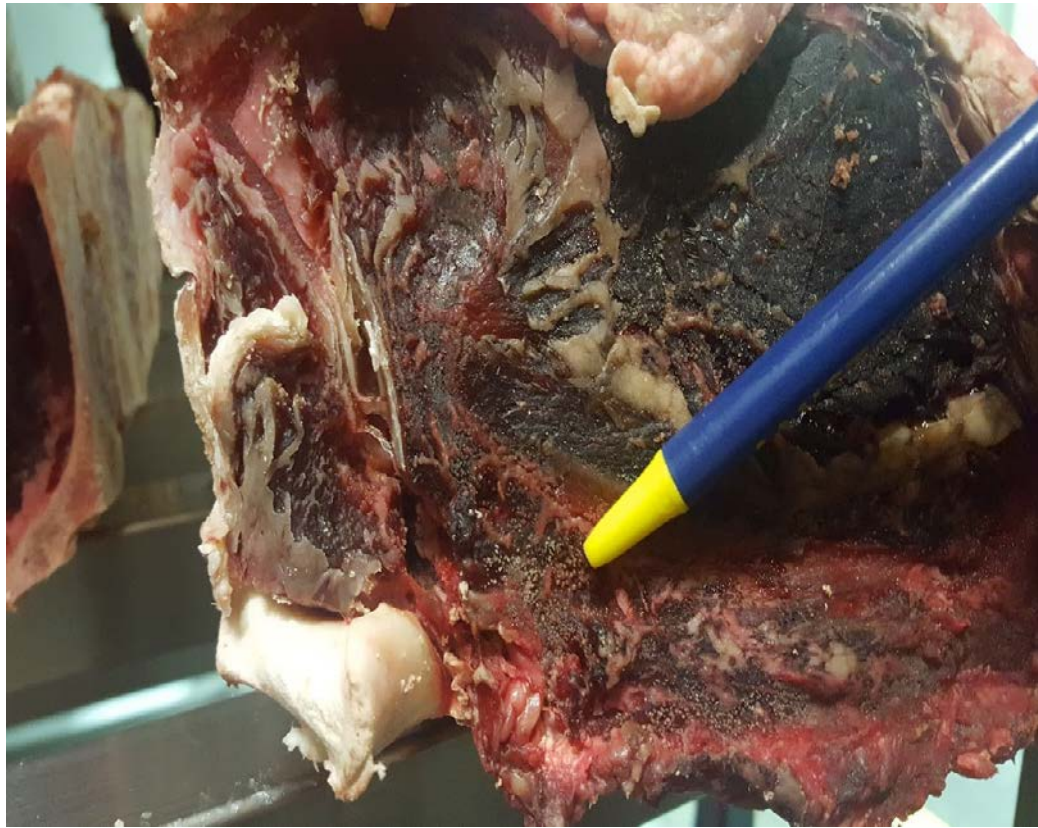
Focus 2. Hygiene Of Product Pre Treatment

- Correct cutting lines
- Equipment hygiene
- Personal hygiene

The above points have a significant impact on
yield and profitability

Chiller 1 Day 15

Inadequate hygiene & parameter control



Adequate hygiene & parameter control



Chiller 1 Day 35

Inadequate parameter & hygiene control



Adequate parameter & hygiene control



Chiller 2 day 15



Chiller 2 day 35



Design of chiller 2 controls drying parameters which treats issue of poor hygiene and retains yield.

Focus 3. Fat cover on meat influences moisture loss

Lean primal day 56



Fat primal day 56



Focus 3. Fat cover on meat influences trimming loss

Lean primal day 56



Fat primal day 56



Conclusions

Successful Dry Ageing (maximised yield) Has 3 Points Of Focus

- Purpose designed chamber retains weight and reduces micro load
- Adequate hygiene of product prior to dry ageing is extremely critical in a retro fit chamber
- Sufficient fat cover on primals ensures less trimming for sale

Conclusions

Dry crust staining chiller 1



Dry crust staining chiller 2



Dry crust develops to approximately the same depth in both chillers

Notes

- The photographs on slide 12 have been altered with a color filter to show the differences in fat stain color. No other photographs have been altered
- Refrigeration utilised in chiller 2 sustains a temperature variance of 0.5 to 0.8 degrees celcius
- Microbiological analysis results (August 2018) prove after 70 days treatment:

Yeast & Mould	<100 cfu/g
TVC	~ 1100 cfu/g
Enterobacteriaceae	<10 cfu/g
E.Coli	<3 mpn/g
- For further details contact Norlane Trading P/L on +61 418 177 076 or steve@norlanetrading.com.au