

FOOD TECHNICAL SERVICES – PROJECT: PRODUCT SURFACE MOISTURE CONTROL MEAT AND SEAWEED

The Issue

A reduced moisture cured meat product manufacturer had been experiencing condensation problems on the product prior to and after final skin packing – with corresponding increases in microbial counts and customer complaints.

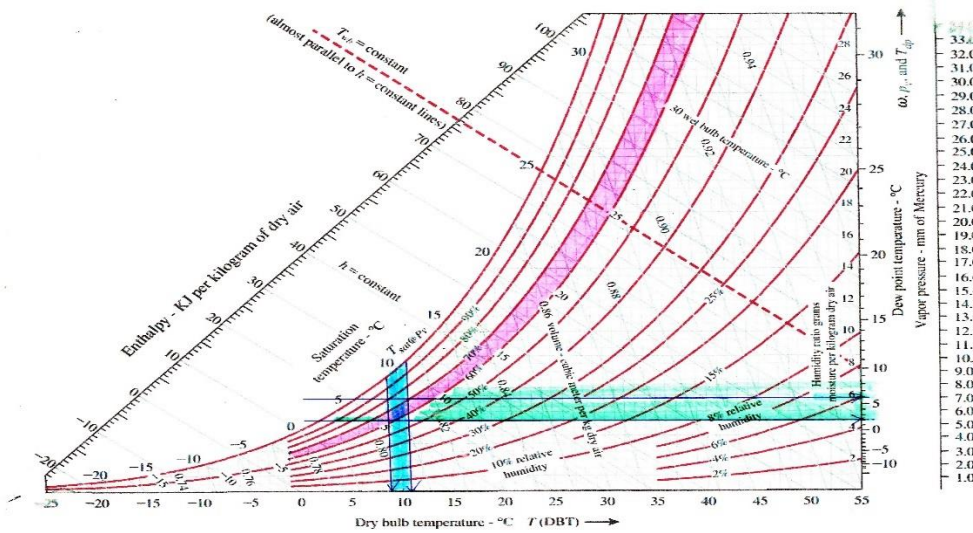
Packed part processed (frozen unsliced cuts) were routinely defrosted then returned to the slicing and repacking area (controlled at 9-11°C) for opening, slicing and packing.

The solution

A chat over the phone followed by some measurement of:

- product water activities (equilibrium relative humidity)
- packing room range of ambient air humidities and temperatures
- defrosted product temperatures prior to pack.

We could see (using a standard Psychrometric chart) that:



Results:

With dry bulb air temperatures controlled at 9-11°C (blue on chart), and air humidity typically 60-70% (pink on chart) - the business should be capable of avoiding surface condensation if open product surfaces were kept at above the dewpoint (green band on chart) which in this case was 5°C. As 6°C to 8°C was acceptable to both operator product – then we had resolved the issue at minimal cost.



Other example: Similar techniques were used for a dried seaweed manufacturer who'd issues with condensation forming within their sealed loose packs of product during cold storage/transit.

