

Spore germination in psychrotolerant clostridia associated with red meat spoilage

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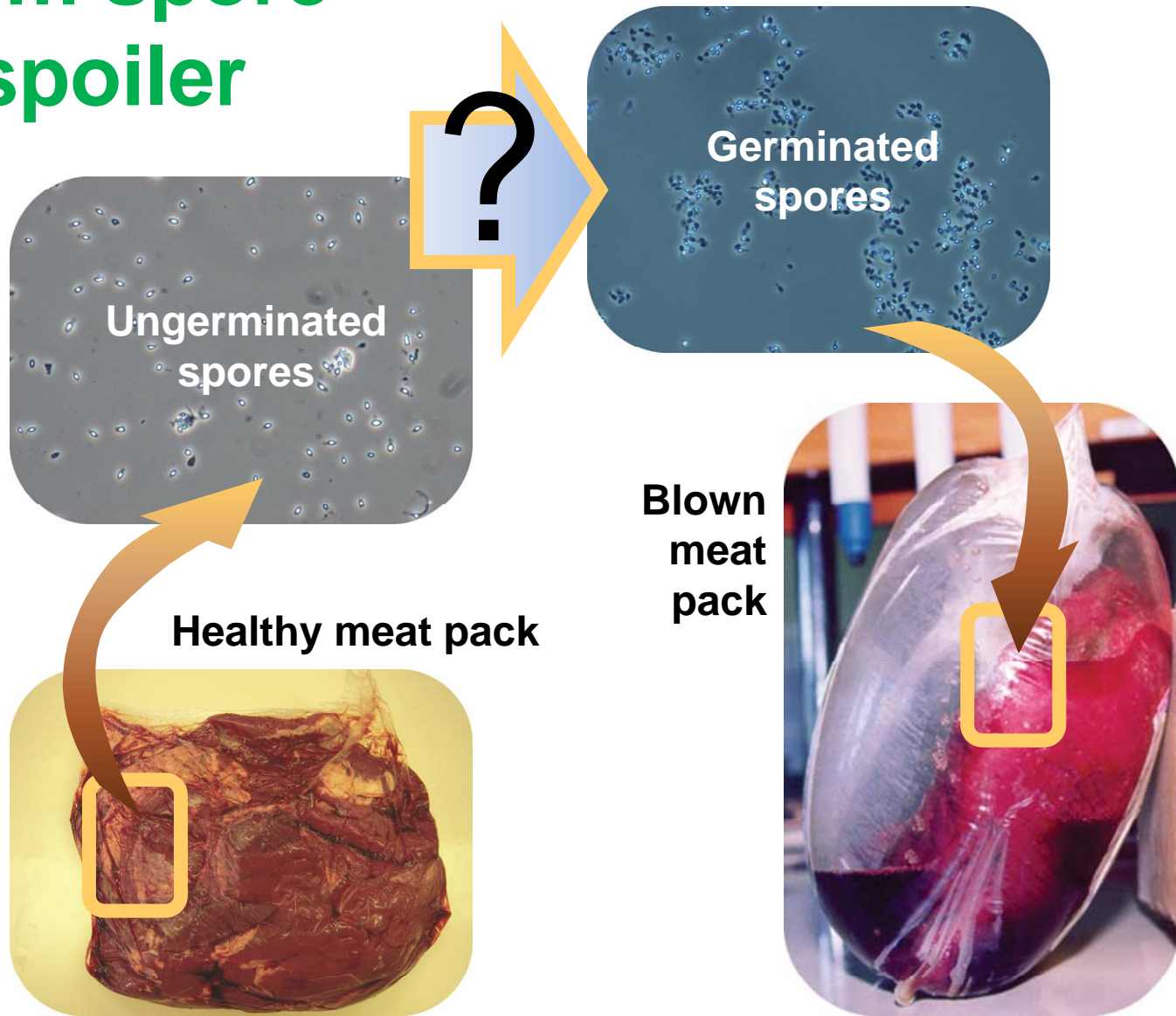
Spoilage by psychrotolerant clostridia

- Spoilage condition of occurring in chilled vacuum packaged red meat
- Characteristics include gas and drip production and off odours
- NZ meat at higher risk due to time spent in transit
- Can occur at low temperatures

Bottom line: loss of income and customer confidence.



From spore to spoiler



Results

Clostridium

estertheticum

(cold loving)

Only a small portion of the population germinated even in PYGS and CMM the growth media

Clostridium

frigidicarnis

(tolerates the cold)

Germinates well in lactate amino acid combinations especially lactate/norvaline and lactate/valine