

An NRL's experience with Verification Testing for the PHC

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Overview



- Campylobacter Testing in Ireland
- Transport Container and Arrangements
- Sample Numbers/Rejection Numbers
- Conclusion

Private Laboratory Testing

Com Reg 1495/2017 – Jan 2018: Processors (x3) collect 5 neck flap samples weekly (min 4 neck flaps, min 20% post-thin)

MoU - Feb 2019: Caecal sampling of all pre-thin birds

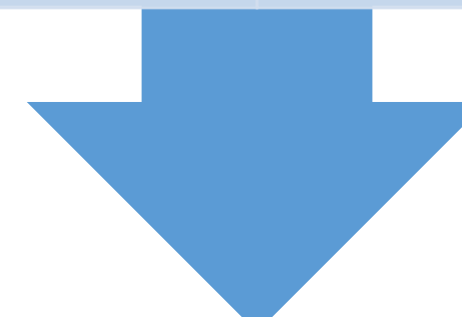
Private laboratories carry out enumeration

Submit results to NRL for collation

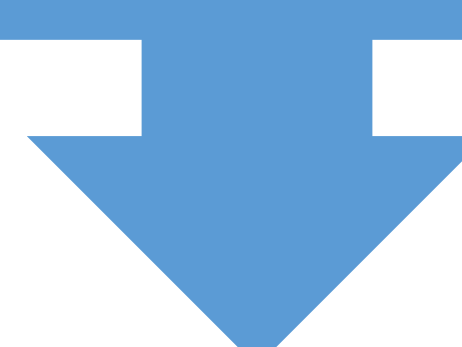
Verification Testing by NRL – April 2019

Approx every 2 weeks: each processor submits 1 caecal sample and 2/3/4 neck flaps samples to NRL

Sacrificial samples included for temperature on arrival checks



Com Reg 1495/2017: tested within 48 hours of sampling and maintained between 1-8°C during transit



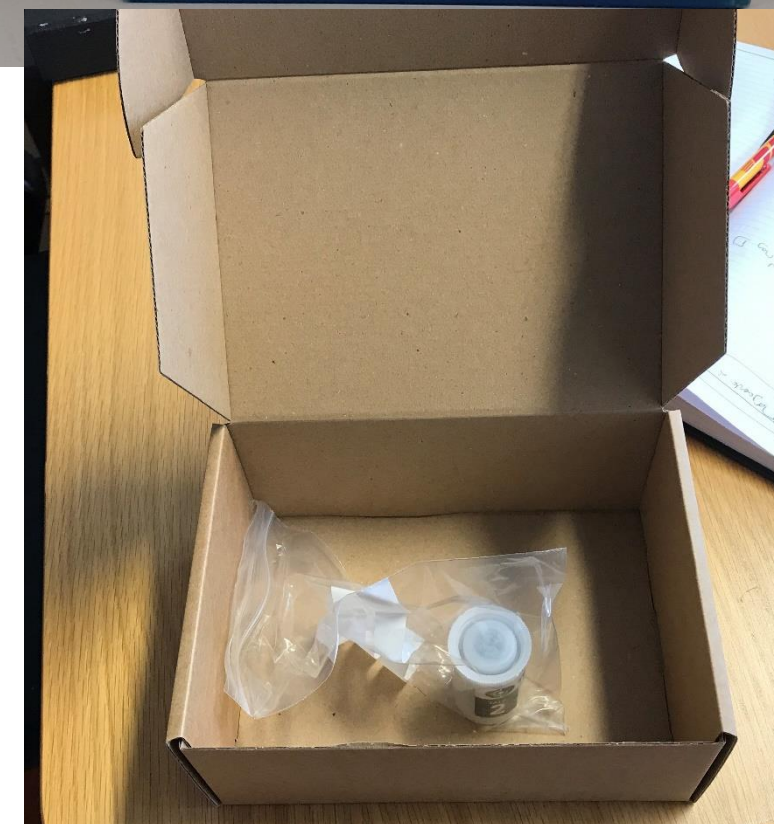
NRL carries out enumeration

Verification results compared to private laboratory PHC and caecal enumeration results

Transport Container for Verification Testing at NRL



- Intelsius BioTherm 10 boxes are used
 - Claim to ensure ‘sample integrity for up to 48 hours at 2-8°C’



Campylobacter Enumeration Verification Testing Submission Form



IMPORTANT NOTES RE SAMPLE HANDLING:

- Caeca should be collected at least an hour before the neck flap samples and placed at 4°C
- The ice block / pack should be stored frozen in a freezer (NOT just a fridge) until just before required. Samples should be kept in the fridge until 10-15 minutes before the scheduled collection time. At this time, place the samples in separate, sealed, labelled bags, on one side of the separator and the frozen ice block on the other, ensuring that the samples cannot come into contact with the ice block.
- If using a temperature logger, place it beside the samples, not the ice block.
- Documents accompanying samples must be protected so that they do not become soiled, damaged or otherwise illegible in transit.

Sample details:

Plant		EU No.	
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Transport Arrangements

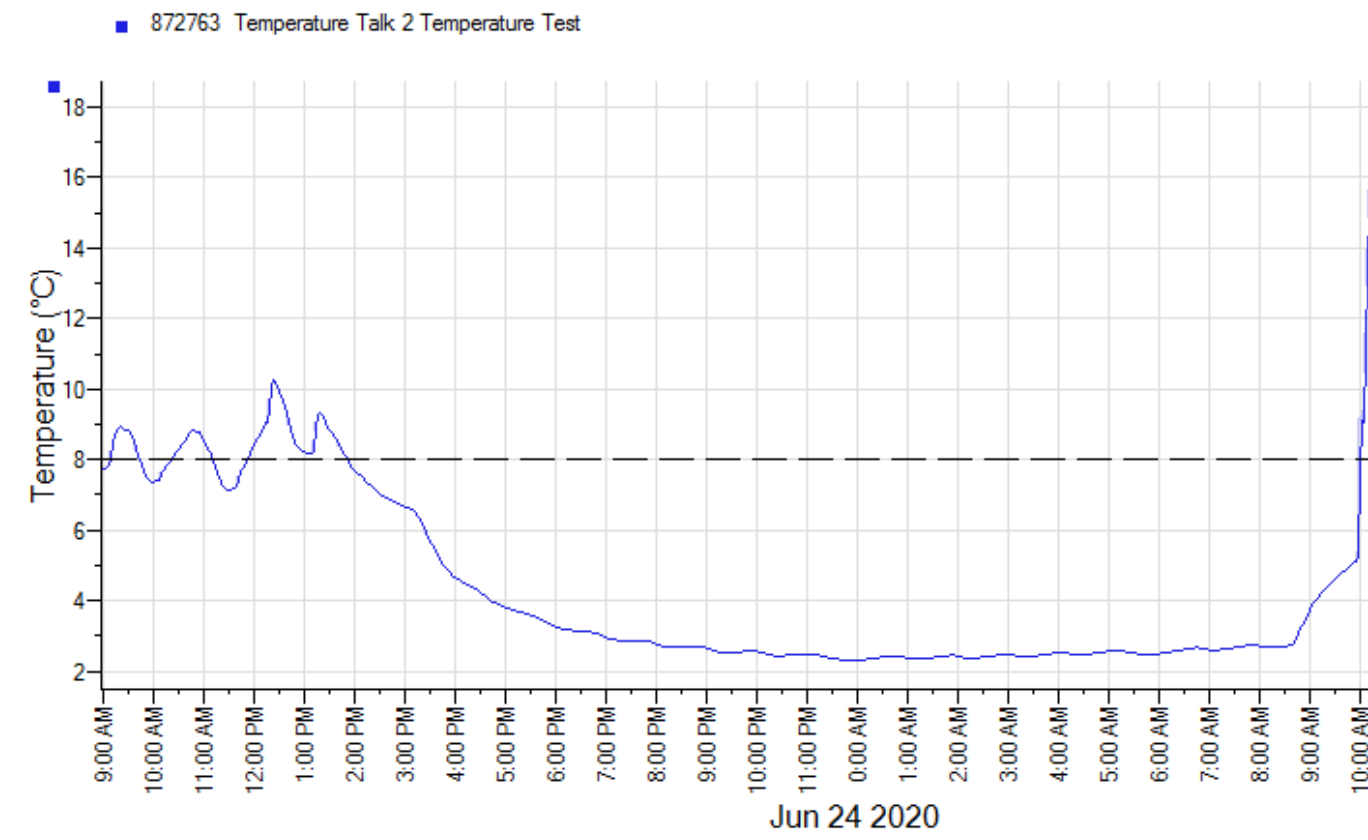


- From April 2019 to June 2020 inclusive a 24-hour delivery courier was used
 - Collection from processor between 1pm and 4pm on a Tuesday
 - Storage at room temperature overnight in a warehouse
 - Delivery to NRL by 10am on Wednesday
- From June onwards DAFM vans are carrying out this collection.
 - Collected on Tuesday afternoon
 - Delivered to NRL by Tuesday evening
 - Stored overnight at 4°C
 - Tested on Wednesday
- Still some problems with temperatures dropping too low, even during summer

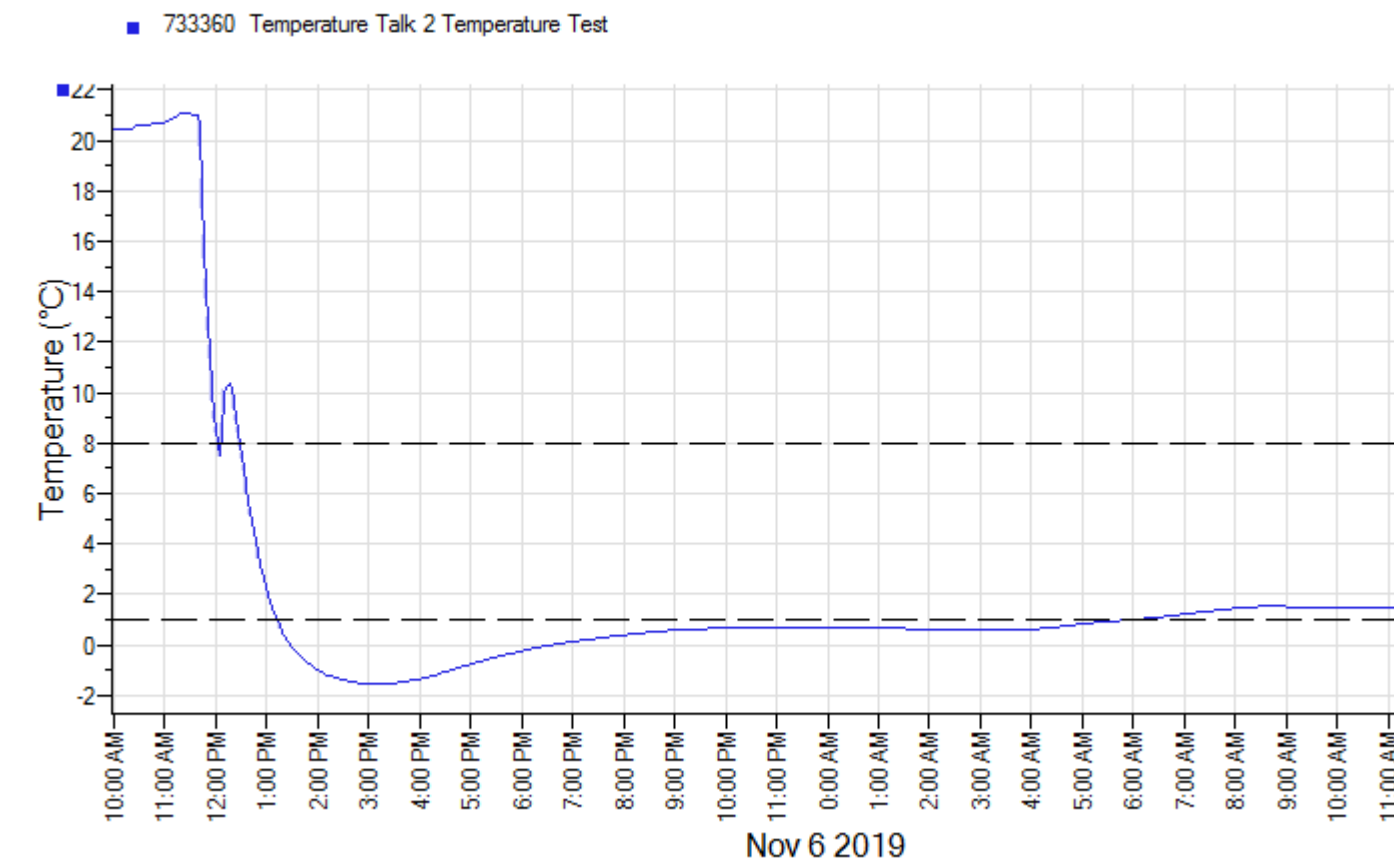
Temperature Logger Readings



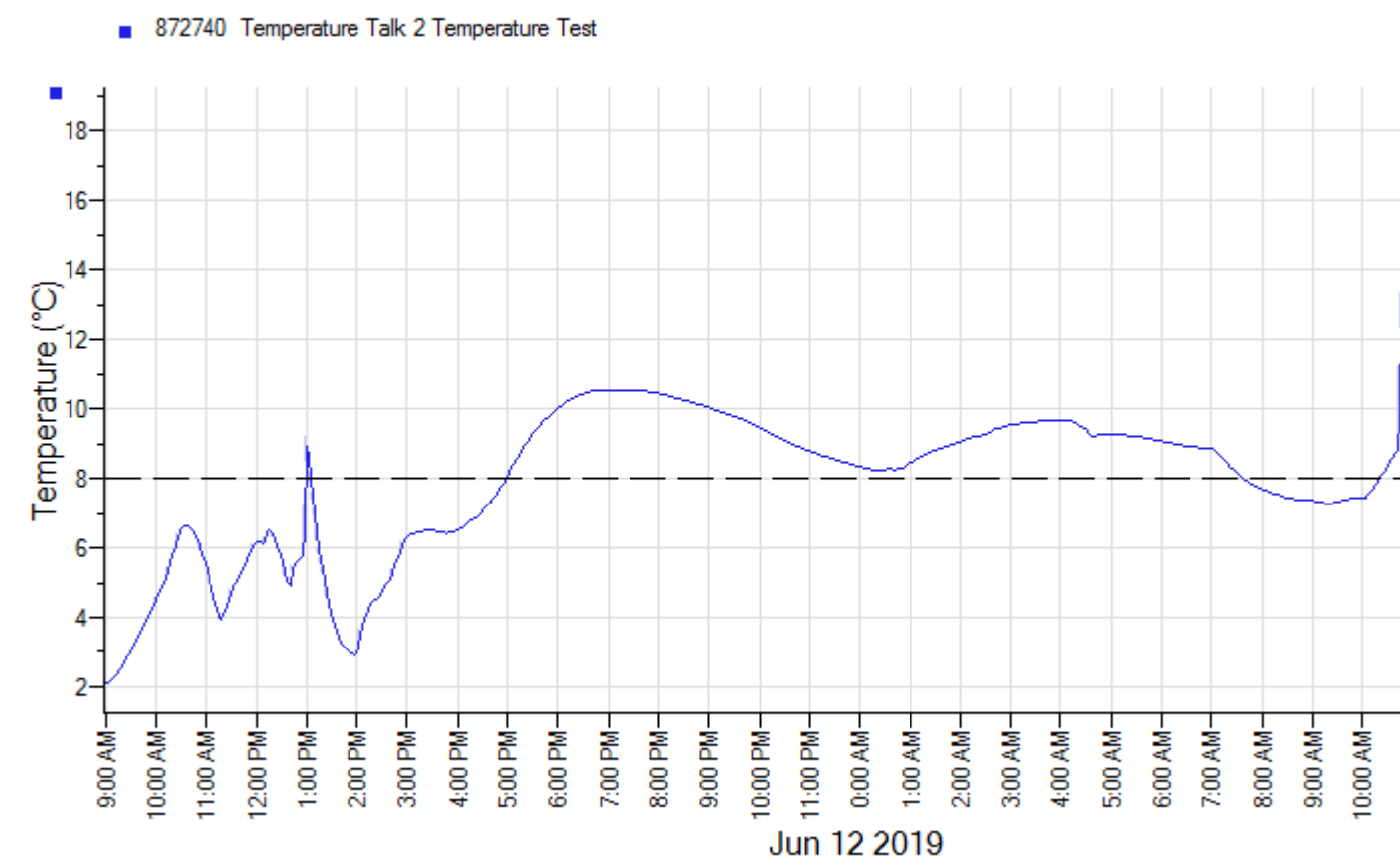
Talk 2 Temperature Test



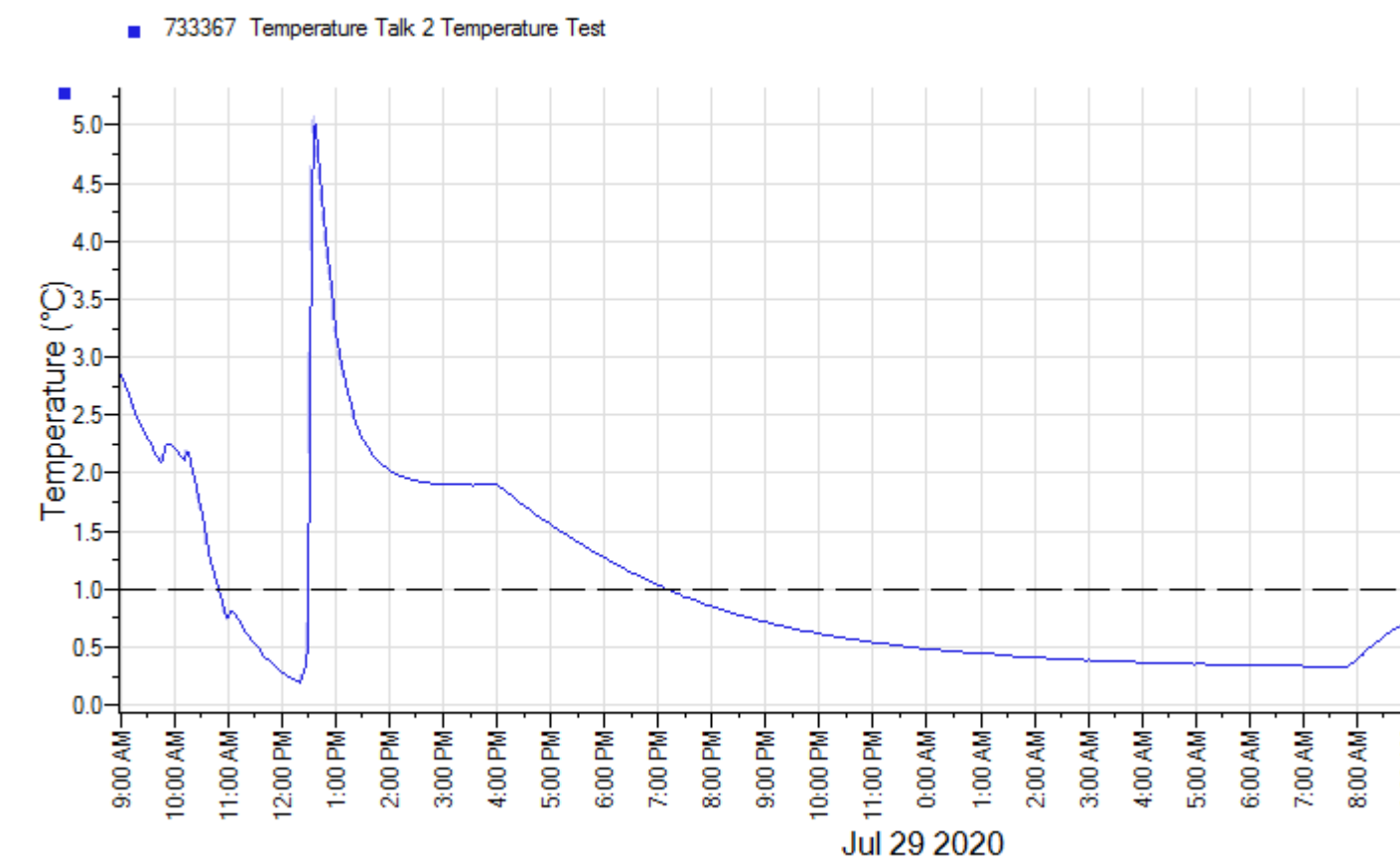
Talk 2 Temperature Test



Talk 2 Temperature Test



Talk 2 Temperature Test



DAFM Verification Testing 2019



Total number of batches submitted in 2019	57
Number of batches rejected due to incorrect temp during transit	13
% Rejection due to incorrect temperature	23%

One batch consists of one caecal sample (10 pooled caeca) and either 2,3 or 4 neck flap samples (each containing 3 neck flaps)

DAFM Verification Testing Jan – June 2020 (Testing suspended April and May due to Covid)



Total number of batches submitted in Q1 and Q2 2020	30
Number of batches rejected due to incorrect temp during transit	7
% Rejection due to incorrect temperature	23%

One batch consists of one caecal sample (10 pooled caeca) and either 2,3 or 4 neck flap samples (each containing 3 neck flaps)

Conclusions



- Adherence to criteria for sample handling of Campylobacter enumeration samples is challenging
- Number of variables – weather is a key one
 - Corrective actions (CA) vary with the season. A key CA was ensuring that ice blocks are frozen not refrigerated.
- We are now removing the ice packs from the sample container once it arrives at the NRL and is placed at 4°C, to prevent the temperature dropping below 1°C overnight - the most consistent problem recently

Questions



- Have other NRLs experienced similar problems?
- Less time-consuming alternatives to temperature loggers?

Acknowledgements



Thanks to:

- Joanne, Rachel, Sarajane and Tony in the Campylobacter NRL
- Margaret and Marie in sample reception
- DAFM and FBO staff in poultry processors