United States Department of Agriculture
Food Safety and Inspection Service, Office of Public Health Science

SOP No: MLG 41 Appendix 2.04		Page 1 of 2
Title: FSIS Laboratory Specific Flow Chart for *Campylobacter jejuni/coli/lari* Enrichment Analysis		
Revision: .04	Replaces: MLG 41 Appendix 2.03	Effective: 03/07/22

Laboratory Guidebook
Notice of Change

Chapter new, **revised,** or archived: MLG 41 Appendix 2.04

Title: FSIS Laboratory Specific Flow Chart for *Campylobacter jejuni/coli/lari* Enrichment Analysis

Effective Date: 03/07/22

Description and purpose of change(s):

This flow chart was revised in association with the revisions made in MLG 41 to reduce sample turn-around time.

- The double strength blood-free Bolton enrichment Broth plus supplements was replaced with Hunt Broth plus supplements, antibiotics and blood components.

- The 48 ± 2h enrichment media incubation time was reduced to 24 ± 2 h.

- Screened negative results can now be reported in 2 days and confirmed positive results can now be reported in 4 days.

FSIS Laboratory Specific Flow Chart for *Campylobacter jejuni/coli/lari* Enrichment Analysis

Day 1

PRIMARY ENRICHMENT

Poultry Rinse or Sponge or Raw Poultry Product Samples + Enrichment Broth
(Sample receipt temperature of 0 – 15°C is required)

Transfer 30 mL of poultry rinse + 30 mL of Hunt Broth[1] to a vented culture flask or Whirl-Pak® bag and mix well.

Transfer 30 mL of raw poultry product diluted 1:6 in BPW[2] + 30 mL of Hunt Broth to a vented culture flask or Whirl-Pak® bag and mix well.

Add 25 mL of Hunt Broth to carcass sponge sample containing 25 mL of transport media and mix well.

Incubate for 24 ± 2 hrs @ 42 ± 1 °C in a sealed container applying appropriate microaerobic conditions.

This chart represents the best-case scenario. Analysis may take longer due to normal analytical circumstance such as re-streaking isolates for purity.

Day 2

SELECTIVE ISOLATION MEDIA

Perform *Campylobacter* screen using 3M™ Molecular Detection System

(+)

(-)
Report as **Negative**

Streak sample to sufficiently dried Campy-Cefex plate for isolation.

Place plate into a sealed container applying the appropriate microaerobic conditions.

Incubate for 48 ± 2 hrs @ 42 ± 1°C.

Day 4

READING RESULTS

When typical *Campylobacter* colonies are found, pick at least one typical colony from the plate in preparation for isolate confirmation.

CONFIRMATORY ANALYSIS

Perform Bruker® MALDI Biotyper analysis.

CONFIRMED NEGATIVE

CONFIRMED POSITIVE

INCONCLUSIVE

CONFIRMED POSITIVE ISOLATES

Whole Genome Sequencing (WGS) is performed on confirmed positive and inconclusive isolates at each FSIS FSL[3] and results are reported.

[1] Hunt Broth = Hunt Broth plus supplements, antibiotics, and blood

[2] BPW = Buffered peptone water

[3] FSIS FSL = Food Safety and Inspection Service Field Service Laboratories