



## KEY WORDS

- ✓ Thermophilic *Campylobacter*
- ✓ Cattle
- ✓ Carcass
- ✓ Cecal content
- ✓ ISO 10272-1: 2017

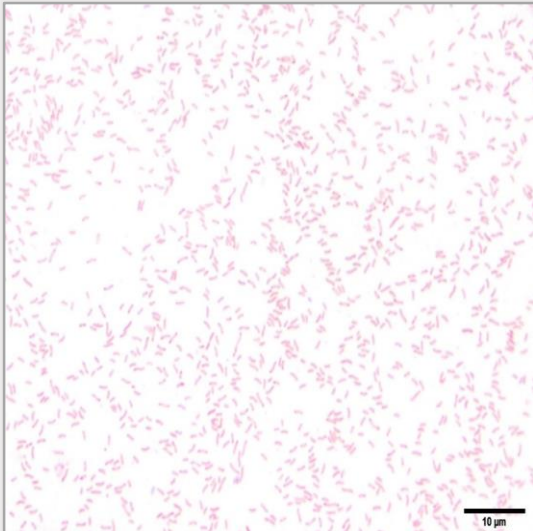
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# DETERMINATION OF CAMPYLOBACTER PRESENCE IN SLAUGHTERED CATTLE BY ISO 10272-1:2017

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0009-0008-0215-7016

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**GRADUATION DATE: 18.07.2024**

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## THESIS ABSTRACT

This study aimed to determine the current prevalence of thermophilic *Campylobacter* in slaughter cattle, where 61 carcass swab and 61 cecal content samples were analyzed for the presence of thermophilic *Campylobacter* according to ISO 10272-1:2017. The overall prevalence was 40.16%, with 42.62% of the carcasses and 37.70% of cecal contents tested positive for this pathogen. Biochemical identification revealed that 67.35% of the isolates were *C. jejuni*, 14.29% were *C. coli*, 4.08% were *C. jejuni* subsp. *doylei*, and 2.04% were *C. hyointestinalis*. Among the carcass isolates, 57.69% were identified as *C. jejuni*, 26.92% as *C. coli*, 3.85% as *C. jejuni* subsp. *doylei*, and 3.85% as *C. hyointestinalis*. For cecal content isolates, 78.26% were *C. jejuni* and 4.35% were *C. jejuni* subsp. *doylei*.

In conclusion, high prevalence of thermophilic *Campylobacter* in slaughter cattle indicates in red meat industry besides poultry meat, cattle meat can also serve as a significant source for this pathogen.

## APPLICATION AREAS OF THE THESIS RESULTS

Considering its zoonotic potential, our current *Campylobacter* prevalence findings, which particularly impact the red meat industry, contribute unbiased data in national/international literature, and on country's legislation updates.

## ACADEMIC ACTIVITIES

1. **Gürler, F.**, Temelli, S. ve Eyiğör, A. G. (2023, December). Zoonotic Pathogen *Campylobacter* and Its Global Significance: Epidemiology, Pathogenesis and Current Assessment of Regulatory Requirements [Abstract]. the paper presented at the Van Yüzüncü Yıl University 2nd International Health Sciences Congress. Van Yüzüncü Yıl University, Van.
2. Coşkun, A. G., **Gürler, F.**, Temelli, S. ve Eyiğör, A. G. (2024, April). Determination of Thermophilic *Campylobacter* Prevalence in Slaughter Cattle Carcasses, Ceca and Gallbladder by ISO 10272-1:2017 Method [Abstract]. The paper presented at the X. Veterinary Food Hygiene Congress. Dicle University, Diyarbakır.