EXPOSURE ASSESSMENT OF *Campylobacter jejuni* IN ROASTED CHICKEN CONSUMPTION

Ashari Widhiasmoro¹, Andriani², and Harsi D Kusumaningrum¹

¹Departement of Food Science and Technology, Faculty of Agricultural Technology, Bogor Agricultural University, IPB Darmaga Campus, PO Box 220, Bogor, West Java, Indonesia.

²Veterinary Research Centers, Indonesian Ministry of Agriculture, Jln. R.E. Martadinata 30, Bogor, West Java, Indonesia

Phone 62 81283123901, e-mail: ashariwidhi@gmail.com

**ABSTRACT**

*Campylobacter jejuni* is a bacterial pathogen that can cause food borne disease in humans. Generally, *Campylobacter jejuni* are found in chicken carcasses and can cause infections in the gut (gastrointestinal) or outside the intestine (extraintestinal). Several cases of *Campylobacter jejuni* infection (*Campylobacteriosis*) has been reported in several countries. The purpose of this study was to determine risk of *Campylobacter jejuni* exposure in roasted chicken. This research included the determination of reduction rate of *Campylobacter jejuni* by roasting process and risk calculation of *Campylobacter jejuni* exposure in consumption of roasted chicken. Roasting process which used commercial setting of time and temperature resulted in 2 log reduction of campylobacter jejuni.

Exposure assessment showed that 1.5 CFU of *Campylobacter jejuni* remained in each portion (100 gram) of roasted chicken. Probability of *Campylobacter jejuni* infection found in this study were $5.27 \times 10^{-6}$ when using exponential model and $2.5 \times 10^{-3}$ if using beta-Poisson model with Teunis and Havelaar $\alpha$ and $\beta$ value or $5.17 \times 10^{-3}$ with FAO/WHO $\alpha$ and $\beta$ value.

**Keywords:** *Campylobacter jejuni*, risk exposure, reduction rate, contamination level, roasted chicken