

## QUALITY OF GOAT MILK AFTER MANUAL PASTEURISATION BY MEDIUM SCALE FARMER

Faridah, F.I.<sup>1\*</sup>, Khairunnisak, M.<sup>2</sup>, Nor Faranisa, M.A.M.<sup>3</sup>, Norakmar, I.<sup>1</sup>, Marina, A.R.<sup>1</sup>, Ketty, G.S.L.<sup>1</sup>, and Akma N.H.<sup>4</sup>

<sup>1</sup>*Veterinary Public Health Laboratory, Department of Veterinary Services, Bandar Baru Salak Tinggi, 43900 Sepang, Selangor, Malaysia.*

<sup>2</sup>*Regional Veterinary Laboratory Johor Bahru, Johor, Malaysia.*

<sup>3</sup>*Universiti Tun Hussein Onn, Johor, Malaysia.*

<sup>4</sup>*Department of Veterinary Services, Selangor, Malaysia.*

\*Corresponding author: faridahf@dvs.gov.my

Food Act 1983 and Food Regulation 1985 updated 2014 stated that all fresh milk shall be pasteurised prior to distribution, sales or consume to ensure food safety. In 2014, human cases of brucellosis occurred in Penang due to consumption of unpasteurised goat milk. To date, they are still number of small and medium goat farmers as well as consumers who were not compliant with the regulation as they assumed the quality of milk will degrades due to the pasteurisation process. This study was conducted to determine the effect of manual pasteurisation process to the quality of milk. A total of 56 milk samples which comprises of 28 raw milks and 28 pasteurized milks were collected from medium scale farm located in Selangor for over a period of one month. All samples were tested for chemical properties; total solid, protein, fat, lactose, Solid non-fat (SNF) and microbiology counts; Total Plate Count (TPC), Coliform and *Escherichia coli*. The results show that 27 from 28 pasteurized samples had low microbiological counts; TPC (671 cfu), Coliform (19 cfu), *E. coli* (10 cfu) that indicates the samples were properly pasteurised. The chemical properties of total solid, protein, fat, lactose and SNF after pasteurisation were 12.99, 3.13, 4.29, 4.74 and 8.70 respectively, as compared to 13.30, 3.15, 4.54, 4.76 and 8.77 for unpasteurised milk. There was no significant difference between raw and pasteurised goat milk on the results for all five chemical properties tested. The study shows that manual pasteurisation process conducted by the farmer was safe for consumer and does affect the milk quality. However, further study is required to sampling from more small and medium scale farmers as manual pasteurisation procedures might differs from one farmer to another.