

THESIS

**TOTAL NUMBERS OF BACTERIA IN RAW MILK AT
BUMDES SINAR MULYA TULUNGAGUNG
WORKING AREA BY TOTAL PLATE COUNT
(TPC) METHOD**



By

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**FACULTY OF VETERINARY MEDICINE
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SURABAYA
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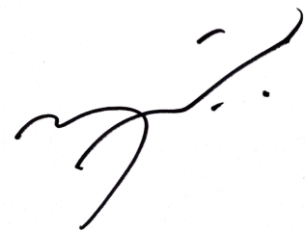
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DECLARATION

Hereby, I declare that in this thesis entitled:

**TOTAL NUMBERS OF BACTERIA IN RAW MILK AT
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WORKING AREA BY TOTAL PLATE COUNT
(TPC) METHOD**

there is no other work ever published to obtain college degree in a certain college and to my knowledge there is also no work or opinion ever written or published by others, except those in writing referred to this paper and mentioned in the references.

Surabaya, February 15th 2022



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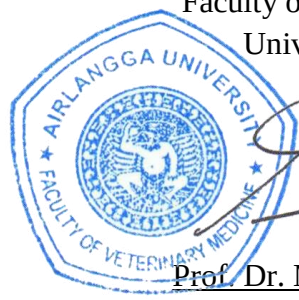
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ABSTRACT

The purpose of this research is to determine the total number of bacteria in raw milk at BUMDes Sinar Mulya Tulungagung working area by Total Plate Count (TPC) method compared to SNI 3141.1:2011. The total number of bacteria was tested by the TPC method at the Regional Health Laboratory, Tulungagung Health Office. The sampling technique used purposive sampling method. This experiment used 30 samples of raw milk collected from 30 farmer members of BUMDes Sinar Mulya Tulungagung. The solution used as diluent was Sodium Chloride 0,9%. This research used the Pour Plate method procedure that was inoculated 1 ml of milk sample used a sterile pipette into a labeled sterile petri dish. As much 20 ml of Nutrient Agar medium (cooled to 45 – 50 °C) was poured, then homogenized by rotating the petri dish horizontally to make the media spread and let it solidify. Incubated the petri dish into incubator with upside position for 24 hours at 37 °C. Microbiological analysis results report was reported used a standard called the Standard Plate Count (SPC). Total Plate Count result showed that the total numbers of bacteria in raw milk at BUMDes Sinar Mulya Tulungagung working area was $4,3 \times 10^5$ CFU/ml that met the SNI 3141.1:2011.

Key words: total plate count, raw milk, numbers of bacteria.

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First of all I would express my gratitude to Allah SWT without His merciful and guidance this thesis entitled **Total Numbers of Bacteria in Raw Milk at BUMDes Sinar Mulya Tulungagung Working Area by Total Plate Count (TPC) Method** would not be finished. Shalawat and salam always be given to our prophet Muhammad SAW who has guided us from the darkness to brightness, from stupidity to cleverness, from jahiliyah to Islamiyah era.

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The author acknowledges that this writing still far from the perfection. Therefore, the author expects critics and suggestions that will help in the improvement of this thesis. The author wishes that it will be useful for the advancement of science and may give contribution to the veterinary medicine field and all the people who needs it.

Surabaya, February 2022

Author

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ABBREVIATIONS AND SYMBOLS

%	= Percent
<	= Less than
>	= More than
°C	= Degree of Celsius
°SH	= Degree of Soxhlet Henkel
µg	= Microgram
BSN	= Badan Standarisasi Nasional
BUMDes	= Badan Usaha Milik Desa
CFU	= Colony Forming Unit
<i>et al.</i>	= Et alii/ Et aliae/ Et alia
g	= Gram
HPHK	= Hama Penyakit Hewan Karantina
ml	= Milliliter
MPN	= Most Probable Number
SNI	= Standar Nasional Indonesia
SPC	= Standard Plate Count
TNTC	= Too Numerous To Count
TPC	= Total Plate Count