

**STUDIES ON PASTEURIZED MILK QUALITY SOLD BY SEVERAL RETAIL
OUTLETS IN SEMARANG'S CENTER TOWN: NUTRITION VALUE,
BACTERIA CONTAMINATION LEVEL AND CONSUMERS' ACCEPTANCE
ASPECTS**

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Blessed (happy, fortunate, to be envied) are those who dwell in Your house and Your presence; they will be singing Your praises all the day long.
Blessed (happy, fortunate, to be envied) is the man whose strength is in You, in whose heart are the highway to Zion.

Passing through the valley of weeping (baca), they make it a place of spring; the early rain also fills [the pools] with blessing.

They go from strength to strength [increasing in victorious power]; each of them appears before God in Zion.... For the Lord God is a Sun and Shield; the Lord bestows [present] grace and favour and [future] glory (honour, splendour, and heavenly bliss).

No good thing will He withhold from those who walk uprightly.

O Lord of hosts, blessed (happy, fortunate, to be envied) is the man who trust in You, [leaning and believing on You, committing all and confidently looking to You, and that without fear or misgiving]

Psalm 84 (Amplified Bible)

This thesis I dedicate to:

Jesus Christ (Papa JC), awesome GOD, my beloved Father, my strength, my Sun and Shield and the centre of my life. Thanks for Your faithfulness to me through all the seasons. Thanks for giving me a big dream. You make me soar above the storm and give boldness in my soul. You're the one who set my feet on solid ground. You give me vision and big dream-that I even could not imagine. Lord... thank you for the cross and the joy that You bring to my life. My Mom-Ellyana and My Dad-Daniel thanks for giving me a nice home and being such loving and caring parents to me.

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RINGKASAN

Susu merupakan makanan bergizi yang memberikan banyak keuntungan untuk kesehatan manusia. Sejak berabad-abad yang lalu, susu telah menjadi bahan pangan yang penting dalam menu makanan sehari-hari di seluruh dunia. Hal inilah yang menyebabkan mengapa kualitas susu perlu diperhatikan. Kualitas susu dapat dilihat dari beberapa aspek yaitu tingkat kontaminasi bakteri, nilai gizi dan juga penerimaan konsumen. Saat ini agen susu banyak yang menjual susu yang telah dipasteurisasi. Susu tidak hanya menyediakan zat gizi yang penting bagi manusia tetapi juga dapat menjadi media pertumbuhan yang baik bagi bakteri. Bakteri yang potensial terdapat dalam susu antara lain *Staphylococcus aureus* dan Coliform. Penelitian ini terdiri dari beberapa analisa seperti analisa TPC, Coliform dan *Staphylococcus aureus*, analisa proksimat dan analisa sensoris susu. Analisa kandungan bakteri menggunakan cara tidak langsung (*indirect methods*), sedangkan analisa proksimat menggunakan metode Kjeldahl dan gravimetric. Analisa penerimaan konsumen menggunakan uji sensoris oleh beberapa orang panelis. Sample susu diperoleh dari empat agen yang berbeda di kawasan pusat kota Semarang yaitu kawasan Pecinan. Hasil penelitian menunjukkan sample dari dua agen memiliki TPC yang relative tinggi. Hasil uji Coliform menunjukkan hasil negatif untuk semua sample, sedangkan uji *Staphylococcus aureus* menunjukkan kandungan bakteri tersebut masih aman untuk dikonsumsi. Tingkat kontaminasi bakteri tersebut sangat dipengaruhi oleh kondisi sanitasi dan higienitas lingkungan sekitar agen, peralatan yang digunakan, serta orang yang terlibat didalamnya. Selain itu nampaknya cara proses penganan susu juga menjadi factor yang mempengaruhi.

Key words: susu pasteurisasi, *Staphylococcus aureus*, Coliform, uji sensoris, komposisi susu.

SUMMARY

Milk is a nutritious food that gives advantages for human health. Since centuries ago, milk has become an important food material in human's diet through out the world. This is the reason why milk quality should be paid lots of attention. The milk quality consists of milk bacteria contamination, milk composition and consumer's acceptance. Nowadays, most of retail outlets sold pasteurized milk. Milk does not only provide nutrition for human's health but also a perfect medium culture for bacterial growth. Coliform and *Staphylococcus aureus* are potentially presents in pasteurized milk. The research consists of some analyses which are TPC, Coliform and *Staphylococcus aureus* content analysis, proximate analysis and sensory evaluation. Bacteria content analysis using the indirect methods while proximate analysis using gravimetric, Kjehdahl and thermogravimetric methods and consumer's acceptance analysis using sensory evaluation. Sample were collected from four different retail outlets in one of trade and busy area at Semarang, The result showed that milk from two retail outlets had relatively high number of Total Plate Count (TPC) number which exceeded the Indonesian SNI standards maximum limit for TPC number in pasteurized milk. The Coliform test showed negative result in each sample. The *Staphylococcus aureus* plate count analysis showed different number in each sample but high number of TPC did not always followed by high number of *Staphylococcus aureus* plate count number. The presence of *Staphylococcus aureus* seemly related to the sanitary and hygiene condition at each retail outlet. This research also fortified with descriptive observation of sanitary and conditions each retail outlet. The proximate analyses showed that basically all samples had relatively high nutrition value. But however, consumer's acceptance also plays an important role that determines milk quality. Sensory evaluation result showed that sensory judgment might be affected by retail outlet hygiene and milk handling.

Key words: pasteurized milk, *Staphylococcus aureus*, Coliform, nutrition value, sensory evaluation.

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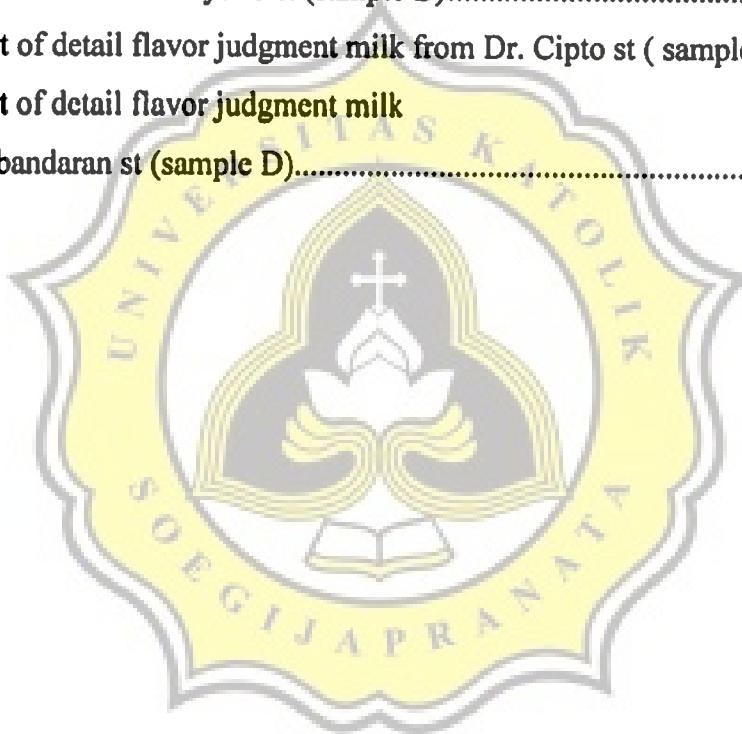
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