

ABSTRACT

Goat milk was popular for health and beauty product. The benefit of goat milk has not been fully realized in food product because of the price quite expensive and the smells of goat milk called "prengus" which most people dislike. Goat milk has a lot of nutrition such as milk protein. Mozzarella cheese is one of food product by coagulating process of milk protein. Coagulant of mozzarella cheese used to enzyme rennet but it's quite expensive and the halalness still doubting. This experiment used enzyme papain and enzyme bromelyn as coagulant of mozzarella cheese. The purpose of this research was to get the best treatment of mozzarella cheese from variant of coagulant and concentration of enzyme papain and enzyme bromelyn.

Preliminary research is to get the best elongation method by its yield and meltability. The research method was split plot design. The concentration of treatments were 0.20%, 0.25% and 0.30%. The variable measured were yield, meltability, protein content, and pH. Then choose the best treatment from each variation of coagulant by De Garmo effectiveness test and the best treatment was measured its water content, ash content, fat content, hardness value, elasticity value, TPC value, and organoleptic.

The result showed that variation and concentration of coagulant was not significantly different on yield, meltability value, protein content, and pH. However, it's effected on organoleptic's colour, aroma, texture and after taste. The best treatment of mozzarella cheese from goat milk was enzyme bromelyn with concentration 0,30%. Its protein content 15,81%, pH 5,03, meltability value 4,7, yield 8,99%, water content 63,90%, ash content 3,44%, fat content 26,44%, hardness value 9,641 N, elasticity value 0,557 gf, dan TPC value 2.975 kol/g. Organoleptic value of texture was not significantly different with control treatment but colour, aroma, and after were significantly different with it.

Keyword : *mozzarella cheese, goat milk, enzyme papain, enzyme bromelyn.*

ABSTRAK

Susu kambing sangat popular untuk produk kesehatan dan kecantikan. Kegunaan dari susu kambing belum sepenuhnya terpenuhi dalam produk pangan karena harga jual yang cukup mahal dan bau khas “prengus” yang kurang disukai. Susu kambing memiliki banyak nutrisi seperti protein susu. Keju mozzarella merupakan salah satu produk dengan proses koagulasi protein susu. Koagulan yang biasa digunakan pada keju mozzarella adalah enzim rennet namun harganya cukup mahal dan kehalalannya masih diragukan. Pada penelitian ini menggunakan enzim papain dan enzim bromelin sebagai koagulan keju mozzarella. Tujuan dari penititian ini untuk mendapatkan perlakuan terbaik dari jenis koagulan yaitu enzim papain dan enzim bromelin dan konsentrasi koagulan.

Penelitian pendahuluan dilakukan untuk mendapatkan metode pemuluran terbaik yang dilihat dari rendemen dan daya lelehnya. Metode penelitian menggunakan rancangan petak terbagi. Konsentrasi dari perlakuan yaitu 0.20%, 0.25% dan 0.30%. Respon yang diukur yaitu rendemen, daya leleh, kadar protein dan pH. Selanjutnya, dipilih perlakuan terbaik dari setiap jenis koagulan dengan menggunakan metode uji keefektivitas De Garmo dan perlakuan yang terbaik akan di uji kadar air, abu, lemak, nilai kekerasan, nilai elastisitas, TPC dan organoleptik.

Hasil menunjukkan bahwa jenis dan konsentrasi koagulan tidak berpengaruh nyata terhadap rendemen, daya leleh, kadar protein dan pH. Namun, berpengaruh nyata pada uji organoleptik warna, aroma, tekstur dan after taste. Perlakuan terbaik dari keju mozzarella susu kambing yaitu menggunakan enzim bromelin. Perlakuan terbaik keju mozzarella susu kambing yaitu pada perlakuan enzim bromelin 0.30% dengan kadar protein 15,81%, pH 5,03, nilai daya leleh 4,7, rendemen 8,99%, kadar airt 63,90%, kadar abu 3,44%, kadar lemak 26,44%, nilai kekerasan 9,641 N, nilai elastisitas 0,557 gf, dan nilai TPC 2.975 kol/g. Sifat organoleptic pada tekstur tidak berbeda nyata dengan control namun pada warna, aroma, dan after taste berbeda nyata dengan kontrol

Kata kunci: keju mozzarella, susu kambing, enzim papain, enzim bromelin.