

**DAIRY CARE : CREAM DARI EKSTRAK BAWANG PUTIH
(*Allium sativum*) DAN DAUN SIRIH (*Piper betle*) SEBAGAI
PELINDUNG DARI PENYEBAB MASTITIS**

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INTISARI

Penelitian ini bertujuan untuk mengetahui kemampuan ekstrak sirih (*Piper betle*) dan bawang putih (*Allium sativum*) dan campuran keduanya dalam bentuk *cream*, dalam mencegah penyakit mastitis yang di uji secara *in vitro* dan *in vivo*. Uji *in vitro* dilakukan dengan menguji difusi dan dilusi dari masing-masing ekstrak dan campurannya dengan konsentrasi (%) 1, 3, 5, 7, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80%, uji *in vivo* dilakukan dengan melakukan uji *total plate count* dan jumlah sel somatik. Data hasil uji *in vitro* dianalisis dengan analisis variansi pola searah, sedangkan hasil uji *in vivo* dianalisis dengan analisis variansi pola factorial dan dilanjutkan dengan uji beda mean *Duncan Multiple Range Test*. Hasil penelitian menunjukkan bahwa ekstrak bawang putih, ekstrak daun sirih, dan ekstrak campuran (bawang putih + daun sirih) memiliki potensi dalam menghambat bakteri *Staphylococcus aureus*, konsentrasi minimum yang memberikan daya penghambat optimal terhadap *Staphylococcus aureus* adalah ekstrak bawang putih 60%, ekstrak daun sirih 5%, dan ekstrak campuran (bawang putih + daun sirih) pada konsentrasi 3%. Tidak terdapat perbedaan total bakteri dan jumlah sel somatic dalam susu baik kontrol maupun perlakuan. Kesimpulan penelitian ini adalah *cream dairy care* dapat menjaga ambing dan puting dari penyakit mastitis.

Kata kunci : Mastitis, *Cream mastitis*, *Dairy Care*.

**DAIRY CARE : CREAM FROM GARLIC EXTRACT (*Allium sativum*)
AND LEAF LEAVES EXTRACT (*Piper betle*) AS PROTECTION OF
MASTITIS DESEASE**

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ABSTRACT

The aim of this research was to know the ability of betel extract (*Piper betle*) and garlic (*Allium sativum*) and mixture of both in the form of cream, in preventing mastitis disease tested in vitro and in vivo. In vitro tests were performed by testing the diffusion and dilution of each extract and mixtures there of with concentrations (%) 1, 3, 5, 7, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80%, then in vivo by testing total plate count and somatic cell count. In vitro test were analyzed by analysis of variance Completely Randomized Design unidirectional pattern and in vivo data were analyzed by analysis of variance factorial design. If there is a real difference then it will be continued with Duncan Multiple Range Test test. The results showed that garlic extract, betel leaf extract, and mixed extract (garlic + betel leaf) had potential inhibiting *Staphylococcus aureus* bacteria, the higher concentrate in inhibiting the growth of *Staphylococcus aureus* bacteria of garlic extract at 60% concentrate, betel leaf extract at 5% concentration, and mixed extract (garlic + betel leaf) at 3% consentation. There were no significant different of total bacteria and somatic cell between contron and treatment. The conclusion of this research is cream dairy care can keep udder and nipple from mastitis disease.

Key Words : Mastitis, Cream mastitis, Dairy care.