

Perbedaan Zona Hambat Antara Madu Putih Dompu Dan Madu randu Berbagai Konsentrasi Terhadap Pertumbuhan Streptococcus. mutans serotype c. = The Difference in Inhibition Zones Between Dompu White Honey And Randu Honey on Growth of S. Mutans Serotype C

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Abstrak

Latar Belakang: Madu diproduksi oleh lebah madu diantaranya Apis malivera dan Apis dorsata.

Berdasarkan sumber nektar flora dibedakan monoflora dan polyflora. Madu monoflora seperti madu randu dan madu lengkung dengan konsentrasi 25% dan 50% telah diteliti memiliki efektivitas anti bakteri terhadap bakteri S. mutans. Salah satu madu polyflora adalah madu putih Dompu yang dihasilkan oleh lebah hutan kering Dompu. Di bidang kedokteran gigi S. mutans khususnya S. mutans serotype c merupakan bakteri utama penyebab karies gigi Tujuan: Menganalisa perbedaan zona hambat antara Madu putih Dompu dan madu randu terhadap pertumbuhan bakteri S. mutans serotype c. Metode: Desain penelitian Ekperimen laboratorik. Koloni S. mutans serotype c hasil biakan dalam broth TYS20B dengan konsentrasi 28×10^8 CFU diratakan dalam media agar selektif TYS20B, di tengah medium agar letakkan paper disk dengan diameter 12 mm yang kemudian ditetesi 50 madu putih Dompu dan madu randu yang telah dilakukan pengenceran 12,5%, 25% dan 50% dimasukkan dalam jar yang telah diberi gas anaerob di inkubasi selama 46 jam pada suhu 37°C. Perhitungan zona hambat dilakukan sebanyak 3 kali dengan mengukur lingkaran terluar dikurangi lingkaran terdalam di bagi dua. Hasil: Nilai rerata zona hambat madu putih Dompu 25% terhadap koloni S. mutans serotype c menunjukkan nilai tertinggi ($4,1633 \pm 0,9312$) dan zona hambat madu randu 50% terhadap S. mutans serotype c menunjukkan nilai terendah ($2,106 \pm 1,264$). Hasil uji statistik menunjukkan adanya perbedaan tidak bermakna antara zona hambat madu putih Dompu dan madu randu pada semua konsentrasi ($p > 0,01$). Kesimpulan: Terdapat perbedaan yang tidak bermakna antara zona hambat pada madu putih Dompu dan madu randu terhadap pertumbuhan bakteri S. mutans serotype c.

.....Background: Honey is produced by honey bee include Apis mellifera and Apis Dorsata. Based on the nectar source, honey was differentiated become monoflora and polyflora. Monoflora honey such as randu honey and polyflora honey such as Dompu white honey with a concentration of 25% and 50% have been investigated that antibacterial effectiveness against bacteria S. mutans. In dentistry, S. mutans especially S. mutans serotype c is a major cause of dental caries. Objective: To analyze the differences of inhibition zone between Dompu white honey and randu honey on the growth of bacteria S. mutans serotype c. Method: Design of research is laboratory experiments. Colonies of S. mutans serotype c from the results of TYS20B broth culture in a concentration of 28×10^8 CFU flattened in an agar medium selective TYS20B, in the middle of the medium, in order to place the paper disk with its diameter of 12 m, then etched with 50 of Dompu white honey and randu honey have been diluted 12 5%, 25% and 50% put in a jar that had been gassed with anaerobic incubation for 46 hours at a temperature of 37°C. Calculations of Inhibition zone was done 3 times by measuring the outermost circle minus the innermost circle divided by two. Results: The mean of inhibition zone Dompu white honey 25% towards the colonies of S. mutans serotype c show the highest value (4.1633 ± 0.9312) and inhibition zone randu honey 50% towards S. mutans serotype c shows the lowest value (2.106 ± 1.264). Statistical test results showed no significant difference between the

inhibition zone Dompu white honey and randu honey in all concentrations ($p > 0.01$). Conclusion: There are no significant differences of inhibition zone between Dompu white honey and randu honey on the growth of bacteria *S. mutans* serotype c.