

ABSTRAK

PENGARUH EKSTRAK RUMPUT LAUT (*Sargassum sp.*) TERHADAP RASIO NEUTROFIL/LIMFOSIT KAMBING JAWA RANDU SAAT TRANSPORTASI

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Stress transportasi memiliki resiko terhadap penurunan berat badan dan kualitas daging yang dihasilkan. Stress ditandai dengan meningkatnya hormon kortisol dan hormon adrenalin dalam tubuh. Rumput laut (*Sargassum sp.*) merupakan tumbuhan yang diduga dapat mengurangi stress, dengan kandungan senyawa alkaloid, fenolik, dan flavanoid sebagai antioksidan dan antiinflamasi. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekstrak rumput laut (*Sargassum sp.*) terhadap rasio Neutrofil/Limfosit selama transportasi sebagai salah satu parameter stres. Rumput laut didapatkan dari Pantai Ngrehenan, Gunung Kidul, Yogyakarta. Penelitian ini menggunakan kambing Jawarandu yang ditransportasikan 12 jam, dengan pemberian 3 perlakuan yaitu: *Sargassum sp.*, vitamin B1, dan aquadest. Pengambilan sampel dilakukan 4 kali (sebelum transportasi, loading, 6 jam transportasi, dan akhir transportasi). Hasil penelitian didapatkan kambing yang diberi ekstrak *Sargassum sp.* mengalami kenaikan rasio Neutrofil/limfosit paling rendah yaitu $0,04 \pm 0,30$ dibandingkan dengan vitamin B1 $0,65 \pm 0,37$ dan aquadest $1,03 \pm 0,66$. Analisa Statistika menunjukkan bahwa tidak ada perbedaan signifikan ($p > 0,05$) kenaikan ratio Neutrofil/Limfosit pada setiap perlakuan. Berdasarkan hasil penelitian dapat disimpulkan bahwa *Sargassum sp.* dapat menekan kenaikan ratio Neutrofil/Limfosit sehingga berpotensi sebagai antistres selama transportasi.

Kata Kunci: Stress transportasi, *Sargassum sp.*, rasio Neutrofil/Limfosit

ABSTRACT

THE EFFECT OF SEAWEED EXTRACT (*Sargassum sp.*) ON NEUTROPHIL/LYMPHOCYTES RATIO IN JAVANESE GOATS WHILE TRANSPORTATION

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*Stress transportation has a risk to weight loss and quality of meat produced. Stress is characterized by increased cortisol and adrenalin in the body. Seaweed (*Sargassum sp.*) is a plant that is thought to reduce stress, with alkaloids, phenolic, and flavonoids compound as antioxidants and anti-inflammatory. This research aims to determine the effect of seaweed extract (*Sargassum sp.*) to neutrophil/lymphocytes ratio during transportation as one of the stress parameters. Seaweed is obtained from Ngrehahan Beach, Gunung Kidul, Yogyakarta. This study used a Jawarandu goat which was transported 12-hours, by giving three treatments, namely: *Sargassum sp.*, vitamin B1, and aquadest. Sampling was carried out 4 times (before transportation, loading, 6 hours transportation, and end of transportation). The results of the research showed that recurrence given *Sargassum sp.* extract increased the lowest Neutrophil / lymphocyte ratio (0.04 ± 0.30) compared with vitamin B1 (0.65 ± 0.37) and aquadest (1.03 ± 0.66). Statistical analysis showed that there was no significant differences ($p > 0.05$) Neutrophil/Lymphocyte ratio in each treatment. Based of the result, can be concluded that *Sargassum sp.* can suppress Neutrophil/lymphocyte ratio increases so as to be potentially anti-stress during transportation.*

*Keywords: Stress transport, *Sargassum sp.*, Neutrophil/lymphocytes ratio*