

ABSTRAK

Pengaruh Ekstrak Ethanol Rumput Laut Cokelat (*Sargassum* sp.) terhadap Gambaran Hematologi Ayam Broiler

Ronavita Putri Nur Iskandar
14/366100/KH/8153

Sargassum sp. merupakan alga cokelat genus *Sargassum* yang termasuk dalam kelas *Phaeophyceae*. Kandungan *Sargassum* sp. antara lain: alginat, protein, vitamin c, tanin, yodium, fenol dan berbagai pigmen fotosintetik (pigmen klorofil: klorofil *a*, turunan klorofil *a*, klorofil *c*, turunan klorofil *c* dan pigmen karotenoid: fukoxantin, xantofil dan β karoten). Bioaktivitas pigmen *Sargassum* sp. antara lain: sebagai antioksidan, antiinflamasi, antikanker, antitumor, antiobesitas, antihipertensi, antidiabetes, pelindung hati, imunomodulator dan antibakteri. Status kesehatan ayam broiler dapat dilihat melalui gambaran darahnya. Tujuan penelitian ini adalah untuk mengetahui pengaruh ekstrak ethanol rumput laut cokelat (*Sargassum* sp.) terhadap gambaran hematologi ayam broiler yang meliputi: nilai hematokrit, kadar hemoglobin, jumlah eritrosit, jumlah leukosit, kadar total protein plasma dan kadar fibrinogen ayam broiler. Sebanyak 400 ekor *day old chicks* (DOC) broiler dipakai dalam penelitian ini dan dibagi menjadi empat kelompok yaitu: satu kelompok kontrol dan tiga kelompok perlakuan dimana masing-masing kelompok terdiri dari 100 ekor ayam yang dipilih secara acak dan berjenis kelamin jantan dan betina (50:50). Ayam kelompok perlakuan 1 diberi ekstrak rumput laut cokelat *Sargassum* sp. dalam air minumnya dengan dosis 2,6 ml/L, kelompok perlakuan 2 diberi dengan dosis 5,2 ml/L dan kelompok perlakuan 3 diberi dengan dosis 10,4 ml/L, sedangkan kelompok kontrol tidak diberi ekstrak rumput laut cokelat *Sargassum* sp. Pemberian ekstrak rumput laut cokelat *Sargassum* sp. dilakukan dengan cara dilarutkan dalam 1 L air minum dan diberikan tiga kali seminggu pada hari ke 5, 6, 7, 12, 13, 14, 19, 20, 21, 26, 27, 28, 33, 34 dan 35. Pengambilan darah ayam dilakukan setiap minggu pada hari ke 12, 24 dan 34 untuk dilihat profil darahnya.

Hasil penelitian menunjukkan adanya perubahan pada gambaran darah berupa peningkatan nilai hematokrit, kadar hemoglobin, jumlah eritrosit, dan total protein plasma serta tidak terjadi perubahan pada jumlah leukosit dan kadar fibrinogen, sehingga dapat disimpulkan bahwa ekstrak ethanol rumput laut cokelat *Sargassum* sp. mampu memperbaiki status hematologi ayam broiler.

Kata Kunci: *Sargassum* sp., ayam broiler, gambaran hematologi.

ABSTRACT

THE EFFECTS OF ETHANOL EXTRACT OF BROWN ALGAE (*Sargassum* sp.) ON THE HEMATOLOGY OF BROILER CHICKEN

Ronavita Putri Nur Iskandar
14/366100/KH/8153

Brown algae of *Sargassum* sp. belongs to the genus *Sargassum* which belongs to the class *Phaeophyceae*. *Sargassum* sp. contains alginates, proteins, vitamin C, tannin, iodine, phenol and various photosynthetic pigments (chlorophyll pigments: chlorophyll a, chlorophyll a derivatives, chlorophyll c, chlorophyll c derivatives; carotenoid pigments: fucoxanthin, xanthophyll, and beta-carotene). The bioactivity of *Sargassum* sp. pigments can be used as an anti-oxidant, anti-inflammatory, anti-cancer, anti-tumor, anti-obesity, anti-hypertension, anti-diabetic, liver protectant, imunomodulatory and anti-bacterial asseded can be growth promotor of broiler chicken. The health status of broiler chicken can be seen through the hematology profil. The purpose of this research was to determine the effect of ethanol extract of brown algae (*Sargassum* sp.) on the hematology (hematokrit value, hemoglobin count, erythrocyte, leukocyte total protein plasma and fibrinogen count) of broiler chickens. As much as 400 broiler chicks were divided into four groups, which one group represent the controlled group. Each group consisting of 100 chicks respectively, was randomly picked and had the gender ratio of 50:50. The first group of chicks was given brown algae ethanol extract mixed with drinking water at a dosage of 2,6 ml/L, the second group at a dosage 5,2 ml/L and the third group at a dosage of 10,4 ml/L, while the controlled group was not given any extract. The mixture was prepared by mixing one liter of water with brown algae ethanol extract and given to the chicks three times a week on days 5, 6, 7, 12, 13, 14, 19, 20, 21, 26, 27, 28, 33, 34 and 35. Blood samples of blood profiling were taken every week on days 12, 24 and 34.

The results of the research indicate a change in the hematology profil such as increasing hematokrit value, hemoglobin count, erythrocyte, and total protein plasma along with no effect on the leukosit count and fibrinogen levels, so it can be concluded that the extract of ethanol brown algae (*sargassum* sp.) able to improve the hematological of broiler chickens.

Keywords: *Sargassum* sp., broiler chickens, hematology profil.