

RINGKASAN

NORMAH. Karakterisasi Asam Amino Dan Asam Lemak Rumput Laut *Sargassum* Sp. Di Tanjung Siambang Kota Tanjungpinang. Dibimbing oleh YULIA OKTAVIA dan AIDIL FADLI ILHAMDY.

Sargassum sp. ini jenis rumput laut coklat yang merupakan salah satu jenis rumput laut sering dijumpai di sepanjang pantai *Sargassum* sp mengandung alginat dan yodium, dua zat yang banyak digunakan dalam industri makanan, farmasi, kosmetik, dan juga industri tekstil. *Sargassum* sp juga mengandung bahan kimia aktif seperti steroid, alkaloid, fenol, dan triterpen yang memiliki sifat antibakteri, antivirus, dan antijamur. Rumput laut yang mayoritas merupakan tumbuhan laut, merupakan salah satu keanekaragaman laut Indonesia yang memiliki potensi untuk dibudidayakan dan dimanfaatkan dalam memenuhi kebutuhan domestik dan internasional.

Tujuan penelitian ini untuk mengetahui jumlah asam amino dan asam lemak pada rumput laut *Sargassum* sp. Mengetahui jenis-jenis asam lemak dan asam amino yang terdapat pada *Sargassum* sp. rumput laut. Penelitian ini dilaksanakan pada bulan april sampai juni. Sampel rumput laut *sargassum* sp. Diambil diperairan Tanjung Siambang kota Tanjungpinang. Setelah sampel terkumpul sampel dipreparasi dan dikeringkan dibawah sinar matahari lalu sampel di uji proksimat, asam amino dan asam lemak di laboratorium Saraswanti Indo Genecth Bogor. Hasil uji asam amino yang ditemukan pada rumput laut *sargassum* sebanyak 15 jenis asam amino dan 20 jenis asam lemak. Pada pengujian proksimat rumput laut *sargassum* kadar air 11,56% kadar abu 27,88% kadar protein 5,58% kadar lemak 0,58% dan karbohidrat 54,81%.

Gizi tertinggi *sargassum* sp. karbohidrat sebesar 54,81%. Rumput laut *Sargassum* sp. yang di peroleh di tanjung siambang mempunyai 15 jenis asam amino. Glutamat merupakan jenis asam amino tertinggi sebesar 6657,29 mg/kg dan terendah asam amino histidin sebesar 1403,74 mg/kg. Asam lemak pada rumput laut ini mempunyai 20 jenis lemak tak jenuh merupakan asam lemak tertinggi sebesar 0,36 mg/kg dan terdapat beberapa asam lemak terendah salah satunya asam palmitoleat.

Kata kunci: Asam Amino, Asam Lemak, Proksimat, *Sargassum* sp, Tanjung Siambang

SUMMARY

NORMAH. Characterization of Amino Acids and Fatty Acids in Seaweed Sargassum Sp. In Tanjung Siambang, Tanjungpinang City. Supervised by YULIA OKTAVIA and AIDIL FADLI ILHAMDY.

Sargassum sp. This type of brown seaweed, which is a type of seaweed often found along the coast of Sargassum sp, contains alginate and iodine, two substances that are widely used in the food, pharmaceutical, cosmetic, and textile industries. Sargassum sp also contains active chemicals such as steroids, alkaloids, phenols and triterpenes which have antibacterial, antiviral and antifungal properties. Seaweed, which is predominantly a marine plant, is one of Indonesia's marine diversity which has the potential to be cultivated and used to meet domestic and international needs.

The purpose of this study was to determine the amount of amino acids and fatty acids in the seaweed Sargassum sp. Knowing the types of fatty acids and amino acids found in Sargassum sp. seaweed. This research was conducted from April to June. Sargassum sp. seaweed samples. Taken in the waters of Tanjung Siambang, Tanjungpinang city. After the samples were collected, the samples were prepared and dried in the sun, then the samples were tested for proximate, amino acids and fatty acids at the Saraswanti Indo Genecth Laboratory, Bogor. The amino acid test results found in sargassum seaweed were 15 types of amino acids and 20 types of fatty acids. In proximate testing of sargassum seaweed, water content was 11.56%, ash content was 27.88%, protein content was 5.58%, fat content was 0.58% and carbohydrates were 54.81%.

The highest nutrition of sargassum sp. carbohydrates by 54.81%. Sargassum sp. seaweed. The one obtained at Tanjung Siambang has 15 types of amino acids. Glutamate was the highest type of amino acid at 6657.29 mg/kg and the lowest was the amino acid histidine at 1403.74 mg/kg. The fatty acids in this seaweed have 20 types of unsaturated fats, the highest being 0.36 mg/kg and the lowest leak acids, one of which is palmitoleic acid.

Keywords: Amino Acids, Fatty Acids, Proximate, Sargassum sp, Tanjung Siambang