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What you should know about seaweeds

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What you should know about

SEAWEEDS

Seaweeds are marine algae which provide food for man, fish, and other aquatic animals. They are usually prepared as sated or used as component of Japanese dishes like *sushi* and *nigiri* and served as delicacies in the best hotels and restaurants. They are processed into hydrocolloid agar-agar, carrageenan, and alginate, and serve as stabilizing and gelling agents in toothpaste, cosmetics, and solid fresheners; as suspending and gelling agents in breakfast dietary food, juices, jams, syrups, gravy, baby foods, pastes, and sauces; as sizing and coating agents in the manufacture of paper, textile printing and dental material; as binding and disintegrating agents in the manufacture of tablets; and as culture media in bacteriological preparations. Seaweeds are also used in the manufacture of feed and fertilizers.

Seaweeds are good sources of carbohydrates, protein, minerals, trace elements, and vitamins A, B₂, B₁₂, and C. Their food value varies for different species. Average chemical analyses of 46 species of marine algae in the Philippines show that the crude protein content (% dry weight) is 7.44, 6.40, and 9.29 for the green, brown, and red seaweeds, respectively. This is about 2 to 3 times the protein content of common green leafy vegetables which is 3.27% dry weight.

Fisherfolk living along coastal areas consume edible seaweeds in the form of salad or soup. The most commonly used species are: *Caulerpa*, *Codium*, and *Enteromorpha* (green algae); *Hydroclathrus* and *Sargassum* (brown algae); *Eucheuma*, *Gracilaria*, *Halymenia*, *Kappaphycus*, and *Porphyra* (red algae). Recipes were developed and evaluated by the former National Research Council of the Philippines which included pickled seaweeds, *okoy tagonton* seaweeds, *laksa* with seaweeds, bamboo shoots and seaweed salad, fish ball and seaweed soup, and fish and seaweed *lumpia*.

Seaweed species currently being grown commercially are *Kappaphycus* ("tambalang"), *Eucheuma* spp. ("gozo"). *Caulerpa* spp. ("lato"), *Gracilaria verrucosa* ("gulamang-dagat"), *Porphyra* sp. ("gamet"), and *Sargassum*. *Kappaphycus alvarezii* (*cottonii* type) and *Eucheuma denticulatum* (*spinosum* type) are the most widely cultured species, comprising 80-90% of the domestic seaweed produced; other species, 10-20%.

Common seaweed species processed locally are *Gracilaria verrucosa*, *G. eucheumoides*, *Gelidium* sp., *Gelidiella acerosa*, *Sargassum* sp., and *Eucheuma* spp. Seaweeds like *Kappaphycus*, *Eucheuma* sp., *Gelidiella*, and *Gracilaria* sp. can be processed into jams, jellies, candies, pickles, baby's food, and gulaman bars.

Source: Philippine Council for Aquatic & Marine Research and Development (PCAMRD) - Department of Science and Technology (DOST) Primer, No. 2, October 1989.

