

## عنوان مقاله:

Laboratory Evaluation of some Marine Plants on South Australian Beaches

## محل انتشار:

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## نویسندگان:

N. Torbatinejad - *Gorgan University of Agricultural Sciences and Natural Resources, Shahid Beheshti Avenue, P.O. Box: ۳۸۶, Gorgan, Islamic republic of Iran*

J. R. Sabin - *Department of Animal Sciences, Waite Institute, Waite road, Glen Osmond ۵۰۶۴, Australia*

## خلاصه مقاله:

In the first experiment, twelve species of the most plentiful and fresh seaweeds and one species of seagrass from the beach were collected at Kingston, South Australia. All species were then separately sun-and oven-dried and ground. The ground samples were analysed for dry matter, ash, organic matter, crude protein, crude fibers, ether extract and digestibility in vitro. The digestible and metabolisable energy of the samples were estimated by calculation. The results showed that all seaweeds and seagrasses contained a very high ash content, ranging from ۱۹.۵ - ۴۰ per cent. The crude protein content of the samples was low and ranged from ۴.۴ - ۷.۳ per cent. The crude fiber in seagrass was considerably greater than in seaweed species (۳۴.۴ % vs ۳.۷ - ۱۰.۱ %). The dry matter digestibility of samples ranged from ۳۴.۱ to ۵۱.۵, while the data also showed that the values for digestible and metabolisable energy of aquatic plants were very low as compared with lucerne (the control). From the first experiment it was concluded that, amongst marine plants available in South Australia, the seagrass *Posidonia australis*, because of its ready availability in great quantities and the environmental problems for residents, may be regarded as a potential alternative animal feedstuff. In the second experiment, samples of four different physical forms of seagrass, *Posidonia australis* green and fresh (from the water, and washed and un-washed from on the beach) were examined and compared for their chemical composition, including nonstarch-polysaccharides, uronic acids, neutral detergent fiber, acid detergent fiber and lignin, amino acids, crude protein, tannin, ether extract, soluble and insoluble ash. The results from this experiment showed that there were no significant differences between the four different physical forms of seagrass collected in terms of their most important chemical constituents.

## کلمات کلیدی:

Australia, Evaluation, Marine, plants, Seaweeds

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