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Czech J. Food Sci.

**Mišurcová L., Kráčmar
S., Klejdus B., Vacek**

J.:

Nitrogen content, dietary fiber, and digestibility in algal food products

Czech J. Food Sci., 28 (2010): 27-35

The basic nutritional aspects and parameters of freshwater and marine algal food products are described. Blue-green algae (*Spirulina pacifica*, *S. platensis*), green algae (*Chlorella pyrenoidosa*), red algae (*Palmaria palmata*, *Porphyra tenera*), and brown algae (*Eisenia bicyclis*, *Hizikia fusiformis*, *Laminaria japonica*, *Undaria pinnatifida*) were used for this purpose. The ash content, total nitrogen, dietary fibers, and in vitro digestibility of the above-mentioned algal species were studied. The ash contents amounted to 8– 11% (for freshwater) and 9– 33% (for marine) of the weights of the algal samples. The total nitrogen contents were analysed using a modified Winkler's method; in the process, higher nitrogen contents were observed in freshwater algae than in

marine ones. For the analysis of dietary fiber contents, the instrument Ankom220 Fibre Analyser was used. The marine brown algae species were generally assigned higher contents of dietary fiber than the freshwater algal products. The results of the dietary fiber analysis differed with the methodologies used.