

# Typical Analysis of the marine algae *Ascophyllum nodosum*

(also known as feamainn bhuí, rockweed, Norwegian kelp, knotted kelp, knotted wrack or egg wrack)



**General Properties** - dark green in colour with a salty marine flavour

## Components (%)

Total Protein 10.5  
Fat 2.4  
Fiber 7.0  
Ash salt-free 25  
Carbohydrates 58.6

Tryptophan 1.68  
Isoleucine 3.26  
Tyrosine 3.52  
Leucine 5.63  
Valine 3.51

## Carbohydrates (%)

Alginic acid 26.7  
Laminarin 9.3  
Mannitol 4.2  
Methylpentosans 7.0  
Other sugars 11.4

## Vitamins (mg/kg)

Ascorbic acid (C) 500 - 2000  
Tocopherols (E) 150 - 300  
Carotene (A) 30 - 60  
Ba 15 - 50  
Niacin 10 - 30  
Vitamin K 10  
Riboflavin 5 - 10  
Ni 2 - 5  
V 1.5 - 3  
Thiamin 1 - 5  
Folic acid 0.1 - 0.5  
Folnic acid 0.1 - 0.5  
Biotin 0.1 - 0.4  
Vitamin B12 0.004

## Amino Acids

### (% of total Amino Acids)

Alanine 5.52  
Lysine 4.24  
Arginine 5.47  
Methionine 1.07  
Aspartic Acid 9.88  
Phenylalanine 3.54  
Cystine 1.49  
Proline 3.71  
Glycine 5.70  
Serine 4.92  
Glutamic Acid 12.03  
Threonine 4.60  
Histidine 1.29

## Minerals and Elements (%)

Aluminium .193  
Antimony .00014  
Barium .00128  
Boron .0194  
Calcium 1.904  
Chlorine 3.68  
Cobalt .00123  
Copper .00064  
Fluorine .03265  
Germanium .00001  
Gold .00001  
Iodine .0624  
Iron .08956  
Lanthanum .00001  
Lead .00001  
Lithium .00001  
Magnesium .213  
Manganese .1235  
Mercury .00019  
Molybdenum .00159  
Nickel .0035  
Nitrogen .0624  
Phosphorus .211  
Potassium 1.28  
Rubidium .00001  
Selenium .00004  
Silicon .1642  
Sodium 4.18  
Sulfur 1.564  
Strontium .07488  
Thallium .00029  
Tin .00001  
Titanium .00001  
Tungsten .00003  
Vanadium .00053  
Zinc .00352

## Trace or Undeclared Amounts:

Beryllium, Bromine, Bismuth, Cadmium, Carbon, Cesium, Cerium, Chromium, Gallium, Hydrogen, Indium, Iridium, Niobium, Osmium, Oxygen, Palladium, Platinum, Radium, Rhodium, Silver, Tellurium, Thorium, Uranium, Zirconium