

KELP MEAL

Typical Analysis

General Properties

The seaweed *Ascophyllum nodosum* is harvested, machine dried, and sized. It is dark green in color with a light salty flavor.

Particle Size

Standard: 12-14 mesh

Components (%)

Protein	5.7
Fat	2.6
Fiber	7.0
Moisture	10.7
Ash	15.4
Carbohydrates	58.6

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 B ₁₂	0.004

Minerals and Elements (%)

Aluminum	.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

Amino Acids

(as gms of amino acid nitrogen / 100 gms of protein nitrogen)

Alanine	5.0
Arginine	11.8
Aspartic acid	8.7
Glutamic acid	5.3
Glycine	5.7
Leucine	8.7
Lysine	4.1
Serine	3.3
Threonine	2.7
Tyrosine	0.5
Valine + Methionine	14.0

CERTIFICATE OF ANALYSIS

Method	Parameter	Result	Units
AOAC 978.02	Nitrogen, Total (N)	1.43	%
AOAC 950.01	Phosphate, Total (P ₂ O ₅)	0.27	%
AOAC 956.02	Potassium, Water Soluble (K ₂ O)	1.95	%