

# SEAWEED

## PRODUCT DESCRIPTION

Seaweed or halamang-dagat is a red-to-brown grass of the sea that provides nourishment for man. Aside from being consumed as food, seaweed is utilized as a raw material in the manufacture of industrial products such as alginate, agar and carrageenan. There are five (5) species of seaweed in the country. They are Eucheuma (usually exported fresh), Caulerpa (exported fresh or in salted form), Sargassum (produced as meal for animal feed manufacture), Gelidiella and Gracilaria (both exported dried and/or alkali-tested). Eucheuma, however, has a number of uses and enjoys the heaviest demand in the market, both here and abroad. In addition, Eucheuma can be farmed commercially almost anywhere in the country's coastal areas.

### Uses

- ✓ Seaweed is transformed into white powder called "carrageenan".
- ✓ Food processing firms enhances the quality of certain food products such as poultry, hams, sausages, and other meat products with the use of carrageenan as binder, moisture holder, and gelling agent.
- ✓ Sauces, salad dressings and dips require carrageenan to impart body, provide thickness and stabilize emulsions.
- ✓ Carrageenan creates a stable gel for canned meat products and shrimp or fish gels.
- ✓ Whipped creams and toppings retain their stable form due to carrageenan by which the powder gives body to acid milk product such as cheese and yogurt, improved fruit suspension.
- ✓ Carrageenan prevents whey separation and ice crystal formation in ice cream products.
- ✓ Carrageenan is also present in puddings and pie fillings as it creates a stable gel.

## Overview of the Industry:

- ✓ Of the country's total aquaculture production, seaweeds account for 66%.
- ✓ Seaweeds production in the Philippines grew by an average of 7.04% in 1998-2002 (BAS, 2004).
- ✓ Volume of harvests increases continuously from 685,336 mt in 1998 to 894,858 mt in 2002.
- ✓ Western Visayas contributes 48,270mt or 4.8% of the total Philippine production of 988,888mt in 2003.
- ✓ Region 6 ranks fifth in seaweed production among other regions.
- ✓ The steady increase in production is attributed to high market demand, expansion of culture areas and establishment of seaweed projects in non-traditional areas.
- ✓ Seaweed farming evolved from being an alternative livelihood to be a major source of income in coastal communities.
- ✓ *Kappaphycus alvarezii* is the major specie being cultured using fixed bottom and floating monoline method.

## Production Trend: Western Visayas

- ✓ Seaweed production in the region started to rise significantly in 1998 and steadily increases through the years.
- ✓ Production increased by 26.19% in 2003 based on 2002 production. (BAS).

Table 1. Seaweed Production in Western Visayas, 1995-2004.

YEAR	PRODUCTION (MT.)	GROWTH RATE (%)
1995	1,279	-
1996	1,311	2.50
1997	2,087	59.19
1998	12,717	509.34
1999	17,883	40.62
2000	19,179	7.25
2001	30,760	60.38
2002	38,253	24.36
2003	48,271	26.19
2004	50,983	5.62

Source: BAS



### Regional and Provincial Seaweed Production

- Antique Province emerged as the top producing province of Western Visayas in seaweed production contributing an average of 98.24% in the total regional production.

Table 2. Provincial Seaweed Production, Western Visayas.

PROVINCE	PRODUCTION					% SHARE
	1998	1999	2000	2001	2002	
Aklan	0	0	0	0	0	0
Antique	12,027	17,222	18,831	30,502	38,117	98.24
Capiz	0	0	0	0	0	0
Guimaras	629	548	189	225	136	1.45
Iloilo	61	113	159	33	0	0.31
Neg. Occidental	0	0	0	0	0	0
TOTAL	12,717	17,883	19,179	30,760	38,253	100

Source: BAS

### Trade Statistics:

- The Philippines is considered as the world's leading supplier of Eucheuma comprising about 80% of the world's supply. Raw Eucheuma is sold according to its quality. Most Eucheuma products, however, are exported in carrageenan or processed form. Two types of Eucheuma seaweeds are exported in dried form. These are the Eucheuma Cottoni and Eucheuma Spinosum.
- The seaweed industry has manifested a remarkable performance in the international market. In 1999, the Philippines exported a total of US\$ 95.653 Million worth of seaweeds in all forms up from US\$ 64.211 Million in 1998 or an increase of 49%.

### ISSUES AND CONCERNS

- Pollution in production areas.
- Inadequate supply of seaweed planting materials.
- Unstable market price.
- Presence of many marketing channels.
- Absence of local processors.

### STRATEGIES AND INTERVENTIONS

- Bureau of Fisheries and Aquatic Resources is mandated to increase food production, increase income and provide employment and generate jobs for the fisherfolk.
- Provision of technical assistance, seaweed-farm inputs such as construction and planting materials.
- Establishment of seaweed nurseries in order to provide quality but cheap "seedlings".
- Establishment of demo farms/ set plots specially in non-traditional areas.