INVESTMENT GUIDE FOR SEAWEED

SCAN ME

WHY SEAWEED?

- Seaweed is one of the most important aquaculture commodities in the Philippines together with milkfish and tilapia.
- With 1,067 identified species in the Philippine, only 4-5 species were farmed commercially but other species have potential for commercial production and have market demand.
- Seaweed aquaculture is currently dominated by the cultivation of red algal galactan seaweed (RAGS) that serves as raw materials for biopolymers known as agar and carrageenan.
- Suited for small-scale aquaculture activities. It only requires simple farming methods and does not require fertilizer and chemical applications.

TOP 5 MAJOR SEAWEED PRODUCING REGIONS IN 2019

The top major seaweedproducing regionsare ARMM with 696,765.47 MT, Region IV-B (MIMAROPA) with 342,006.89 MT, Region IX with 197,563.57 MT, Region VI with 73,441.20 MT and Region VII with 65,247.69 MT.

MARKET POTENTIAL

- Philippines harvested 1,499,961.25 MT of seaweeds in 2019. Seaweed Production has slowly improved with 1.47% increase compared to previous year's production of 1,478,300.85 MT.
- Seaweed came 2nd on export value of US$ 250 million in 2019 an increase of 13% compared to US$ 207million in 2018, to contributing 22% share to the total export earnings for that year.
- Carrageenan remains the major export product comprising 94% of the total seaweed exports. USA, People's Rep. of China, Spain, Russia and Belgium are among the major markets for Philippine seaweed products.

Department of Agriculture
Agribusiness and Marketing Assistance Service
Agribusiness Promotion Division
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SUMMARY OF 1/4 HECTARE (4 CROPPING IN 1 YEAR) STAKING MONOLINE - COST AND RETURNS, 2019

Particulars	
Gross Returns (PhP/ha)	244,285.20
Total Costs (PhP/ha)	82,250.00
Net Returns (PhP/ha)	162,025.20
Net Profit-Cost Ratio	1.97
Cost per Kilogram (PhP)	20.20
Yield per year (kg/year)-dried	4,071.42
Farmgate Price (PhP/kg)	60
Return on Investments (ROI, %)	197

SUMMARY OF 1/4 HECTARE (4 CROPPING IN 1 YEAR) FLOATING ROPE - COST AND RETURNS, 2019

Particulars	
Gross Returns (PhP/ha)	398,571.60
Total Costs (PhP/ha)	108,500.00
Net Returns (PhP/ha)	290,071.60
Net Profit-Cost Ratio	2.67
Cost per Kilogram (PhP)	16.34
Yield per year (kg/year)-dried	6,639.86
Farmgate Price (PhP/kg)	60
Return on Investments (ROI, %)	267

SEAWEED PROCESSOR, TRADER AND EXPORTER IN THE PHILIPPINES

CATEGORY	COMPANY NAME	ADDRESS
PROCESSORS	Cargill Texturizing Solution Regner Mier Zentrum	Door 106 V. Rama Ave., Guadalupe, Cebu City
	Genu products phils. Corp.	Samar Loop cor. Cardinal Rosales Ave., Cebu City
	Ingredients and Gums Corp.	Tamiao, Compostela, Cebu
	Kerry Food Corp.	GF/SFB #1 MEPZA, Pusok, Lapu-lapu City
	LM Zamboanga United Trading	#4 Manuel Luy Rojo Comp., Sta. Catalina St., Zamboanga City
	Marcel Trading Corp.	926 Araneta Ave., Quezon City
	MCPI Corporation	Tugbongan, Consolacion Cebu
	Cargill Texturizing Solution	29th Floor, Citibank Tower
	Regner Mier Zentrum	8741 Paseo De Roxas, Makati City
	Polysacharide Corp.	Maasin, Zamboanga City
	Shemberg Biotech corp.	Carmen, Cebu
	Shemberg Food Ingredients Corp.	MEPZ Road, Lapu-lapu City
	Shemberg Marketing Corp.	Pakna-an, Mandaue City
	PCI Worldwide, Inc.	1403 Summit One Tower #530 Shaw Blvd., Mandaluyong City
EXPORTERS	Asiagel Corp.	Blk. 1 Lot 2 Villa Lourdes Townhomes Congressional Ave., Brgy. Bahaytoro, Quezon City
	B.A. Ponla Enterprises	St. Jude Acre Village, Pardo, Cebu City
	Baroy Marine Products	Sto. Niño Village, Dimaporo St., Baroy, Lanao Del Norte
	LM Aquatic Serv. & Res. Corp.	494 Pusok, Lapu-lapu City
	IA Business Enterprises	IA Business Ent. Compound, Lunzuran Heights, Putik
	King Hoc Seaweed Ent.	Rojo Compound, Sta. Catalina St., Zamboanga City
	Sulbasco Gen. Trading	740 Gov. Ramos Ave., Sta. Maria, Zamboanga City
	V.W. Marine Resources, Int'l.	Talon-talon, Zamboanga City
TRADERS	Bevesea Enterprises	Back C. Saavedra St. Pilit, Cabangcalan, Mandaue City
	Floriam Aqua Marine Trading	B 7, L 26 Benevelonce St., San Bartolome, Novaliches, Q.C.
	Global Ocean Products Inc.	Km. 4, Talontalon, Zamboanga City
	HLC Trading	Zamboanga City
	KQ Marketing	7th Road North Reclamation Area, Cebu City
	Luzon Copra Traders	#75 Camapaner St., Zamboanga City
	Agarophyta Phils. Inc.	3rd Floor Museum Bldg.
	Luzon Copra Traders	#75 Camapaner St., Zamboanga City
	Agarophyta Phils. Inc.	3rd Floor Museum Bldg. Xavier University, Corrales Ave. Cagayan de Oro City, Misamis Oriental
	ZSP Enterprises	Lower Banale, Pagadian City, Zamboanga Del Sur
	D&t Int'l. Seaweeds Export	27 J Sindulan St. Mabolo, Cebu City

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GOVERNMENT SUPPORT/SERVICES:

Financial Support

- The Department of Agriculture (DA) through the Agricultural Competitiveness Enhancement Fund (ACEF) makes available loans with 2% interest per annum. The loan program is being administered by Land Bank of the Philippines (LBP).
- The Agricultural Credit Policy (ACPC) offers loan programs namely Expanded Sure Aid and Recovery Project (SURE COVID-19), Kapital Access for Young Agripreneurs (KAYA), and the Agri-Negosyo (ANYO) Loan Program. The said loan programs target farmers and fisherfolks, the youth, Overseas Filipino Workers (OFWs), and Micro, Small and Medium Enterprises as beneficiaries.
- Landbank of the Philippines (LBP) offers loans for agricultural production and processing under its usual credit programs for small farmers.
- The Department of Science and Technology (DOST) provides loans through its Small Enterprise Technology Upgrading (SET-UP) Program.
- Philippine Crop Insurance Corporation (PCIC) provides protection against damage to/loss of non-crop agricultural assets including but not limited to machineries, equipment, transport facilities and other related infrastructures due to peril/s insured against.

Technical/Non-Financial Support

- Bureau of Fisheries and Aquatic Resources (BFAR) National Fisheries Research Development Institute conducts technical support/trainings on production, marketing, entrepreneurship and research and development.
- Southeast Asian Fisheries Development Center (SEAFDEC) also provides trainings on production, research and development and extension support.
- DA through the Agribusiness and Marketing Assistance Service (AMAS) and its regional counterparts, the Agribusiness and Marketing Assistance Division (AMAD) provide webinars on agribusiness investment opportunities and market linking activities.
- DA through the Agriculture Training Institute (ATI) makes available technical trainings and seminars.
- Technical Education and Skills Development Authority (TESDA) also provides technical trainings and conduct assessment to supervise technical education and skills development.
- Department of Science and Technology (DOST) offers research and technologies on post-harvest development.
- Department of Trade and Industry (DTI) provides market and trade promotions, as well as the provision of shared service facilities to qualified associations.

REFERENCES:

Philippine Statistics Authority
Bureau of Fisheries and Aquatic Resources, Philippine Fisheries Profile 2019
Botanica Marina, Volume 62, Issue 5, Pages 483-498, EISSN 1437-4323, ISSN 0006-8055, DOI: https://doi.org/10.1515/bot-2018-0069

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STAKING MONOLINE-AVERAGE COST OF PRODUCTION, 2019*

BASIC ASSUMPTIONS:		
Farm area (100m x 25m)	1/4	hectare
Water depth is 1.5 meters or more at spring low tide		
No. of module	1	module
Size per module	2,500	square meters
No. of lines per module	25	lines
Length of line	100	meters
Distance between lines	1	meter
No. of seedlings per line	500	seedlings
No. of seedlings per module	12,500	seedlings
Weight of seedlings per module	2,500	kilos
Seedling cost	15	pesos/kilo
Initial seedling weight	200	grams
Culture Period	60	days
Average Growth Increment after 60 days	300.00%	
Total seedling requirement	2,500	kilograms
Mortality rate	10%	
Total harvest after 60 days	9,000.00	kilograms
Production less seedling for next cropping	6,500.00	kilograms
Wet to dried weight ratio	7:1	kilograms
Target moisture content	38%	
Net dry weight yield	928.57	kilograms
Dry weight price (farm gate)	60	pesos/kilo
Number of seasons per year	4	croppings
Increase in selling price	5%	per annum
Increase in cost	5%	per annum

	No. of Units	Unit	Unit Price (P)	Total (P)
FIXED INVESTMENT				
PE rope # 8 / 4 mm (planting lines)	13	rolls	450.00	5,850.00
PE rope # 4	10	rolls	250.00	2,500.00
Empty plastic bottles	220	pieces/line		15,000.00
Small (2 bottles per meter) (200 pcs x 25 lines=5,000)	200	pieces/line	2.50	12,500.00
Big (1 bottle per 5 meter) (20 pcs x 25 lines=500)	20	pieces/line	5.00	2,500.00
Stainless knives	4	pieces	100.00	400.00
Baskets/Tiklis	10	pieces	50.00	500.00
Wooden stakes	125	pieces	20.00	2,500.00
Total (will be divided for 4 cropping)				**26,750.00**

PRODUCTION COST				
Seedlings (for 1st cropping only)	2,500	kilos	15.00	37,500.00
Plastic straw	4	rolls	150.00	600.00
Labor				
Tying of seedlings	4	mandays	300.00	1,200.00
Harvesting	2	mandays	300.00	600.00
Drying	3	mandays	300.00	900.00
Sacks (dried seaweeds)	20	pieces	10.00	200.00
Miscellaneous expenses			1,000.00	1,000.00
Total				**42,000.00**

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COST AND RETURNS		
For the 1st cropping:		
Sales/cropping: (9,000kgs - 2,500kgs (seedling for next cropping) = 6,500 kgs/7) = 928.57 x P60/kg		55,714.20
Less:		
Fixed Investment	6,687.50	
Production Cost	42,000.00	48,687.50
Income before tax		***7,026.70***
2nd and 3rd cropping:		
Sales/cropping: (9,000kgs - 2,500kgs (seedling for next cropping)= 6,500 kgs/7) = 928.57 x P60/kg		55,714.20
Less:		
Fixed Investment	6,687.50	
Production Cost	4,500.00	11,187.50
Income before tax		***44,526.70***
For the last cropping:		
Sales/cropping: 9,000kgs/7 =1,285.71 x P60/kg		77,142.60
Less:		
Fixed Investment	6,687.50	
Production Cost	4,500.00	11,187.50
Income before tax		***65,955.10***

COST AND RETURNS ANALYSIS: Seaweed Farm					
ITEM	QTY. (DRIED)	UNIT	UNIT COST	COST	TOTAL COST
SALES: Dried Seaweed (1st,2nd & 3rd croppings)	928.57	kgs	60.00	55,714.20	167,142.60
Dried Seaweed (last cropping)	1,285.71	kgs	60.00	77,142.60	77,142.60
Total Sales				132,856.80	244,285.20
Production Cost				55,500.00	55,500.00
Fixed Cost				26,750.00	26,750.00
Total Cost				82,250.00	82,250.00
Net Income per year before tax					**162,035.20**

FLOATING ROPE-AVERAGE COST OF PRODUCTION, 2019*

BASIC ASSUMPTIONS:		
Farm area (100m x 25m)	1/4	hectares
Water depth is 5 meters or more at spring low tide		
No. of module	1	module
Size per module	2,500	square meters
No. of lines per module	25	lines
Length of line	100	meters
Distance between lines	1	meter
No. of seedlings per line	500	seedlings
No. of seedlings per module	12,500	seedlings
Weight of seedlings per module	2,500	kilos
Seedling cost	15	pesos/kilo
Initial seedling weight	200	grams
Culture Period	60	days
Average Growth Increment after 60 days	500.0%	
Total seedling requirement	2,500	kilograms
Mortality rate	10%	
Total harvest after 60 days	13,500.00	kilograms
Production less seedling for next cropping	11,000.00	kilograms
Wet to dried weight ratio	7:1	kilograms
Target moisture content	38%	
Net dry weight yield	1,571.43	
Dry weight price (farm gate)	60	pesos/kilo
Number of seasons per year	4	croppings

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	No. of Units	Unit	Unit Price (P)	Total (P)
FIXED INVESTMENT				
PE rope 10 mm (frame)	3	rolls	1,000.00	3,000.00
PE rope # 10/ 5 mm (planting lines)	13	rolls	450.00	5,850.00
PE rope # 10/ 5 mm (Main buoy)	1	rolls	450.00	450.00
PE rope # 4 (small buoy)	13	rolls	250.00	3,250.00
Sandbag for anchors	400	pieces	10.00	4,000.00
Empty plastic bottles	320	pieces/line		21,250.00
Small (3 bottles per meter)(300 pcs x 25 lines=7,500)	300	pieces/line	2.50	18,750.00
Big 1.5L (1 bottle per 5 meter)(20 pcs x 25 lines=500)	20	pieces/line	5.00	2,500.00
Installation cost	7	mandays	300.00	2,100.00
Main bouy (used 20L capacity)	8	pieces	300.00	2,400.00
Stainless knives	4	pieces	100.00	400.00
Baskets/Tiklis	10	pieces	50.00	500.00
Iron bar	20	units	300.00	6,000.00
Total(will be devided for 4 croppings)				**49,200.00**

PRODUCTION COST				
Seedlings (for 1st cropping only)	2,500	kilos	15.00	37,500.00
Plastic straw	6	rolls	150.00	900.00
Used styrofoam	7	kilos	50.00	350.00
Labor			300.00	
Tying of seedlings	4	mandays	300.00	1,200.00
Harvesting	2	mandays	300.00	600.00
Drying	3	mandays	10.00	900.00
Sacks (dried seaweeds)	50	pieces	1,000.00	500.00
Miscellaneous expenses				1,000.00
Total				42,950.00

COST AND RETURNS		
For the 1st cropping:		
Sales/ cropping: (13,500 kgs- 2,500kgs (seedling for next cropping) = 11,000/7 = 1,571.43 x P60/kg		94,285.80
Less:		
Fixed Investment	12,300.00	
Production Cost	42,950.00	55,250.00
Income before tax		***39,035.80***
2nd and 3rd cropping:		
Sales/ cropping: (13,500 kgs- 2,500kgs (seedling for next cropping) = 11,000/7 = 1,571.43 x P60/kg		94,285.80
Less:		
Fixed Investment	12,300.00	
Production Cost	5,450.00	17,750.00
Income before tax		***76,535.80***
For the last cropping:		
Sales/cropping: (13,500 kgs/7) = 1,928.57 x P60/kg		115,722.60
Less:		
Fixed Investment	12,300.00	
Production Cost	5,450.00	17,750.00
Income before tax		***97,972.60***

COST AND RETURNS ANALYSIS: Seaweed Farm					
ITEM	**QTY. (DRIED)**	**UNIT**	**UNIT COST**	**COST**	**TOTAL COST**
SALES: Dried Seaweeds (1st, 2nd & 3rd croppings)	1,571.43	kgs	60.00	94,285.80	282,857.40
total harvest (last cropping)	1,928.57	kgs	60.00	115,714.20	115,714.20
Total Sales				210,000.00	398,571.60
Production Cost				59,300.00	59,300.00
Fixed Cost				49,200.00	49,200.00
Total Cost				108,500.00	108,500.00
Net Income per year before tax					**290,071.60**