

GENERAL INFORMATION

Abaca (*Musa textilis Nee*) is one fiber that has made the Philippines Known all over the world. Abaca has, for centuries, been practically synonymous to the Philippines because it is known over as Manila hemp. It belongs to the Musaceae family and bears a strong resemblance to banana. However, compared to banana, the stalks of abaca are more slender and its leaves are narrower and more pointed. A distinguishing dark line on the right hand side of the upper surface of the leaf blade is pronounced in abaca. Its fruits are smaller, non-edible and contain many seeds.

Before the advent of synthesis in the '60s, abaca was the principal raw material for the manufacture of the world renowned Manila rope. In fact, since the turn of the century, abaca was the top export earner of the country. At present, remains to enjoy the lead in supplying 85% or an average of 66,227 metric tons of the world's requirement for abaca fibers and abaca-based products, of which, 18,062 metric tons or an average 27.2% is contributed by Mindanao.

Caraga region has an estimated area of abaca plantation of 7,745 hectares, of which, 6,180 hectares are productive. The average yield of abaca in Caraga is 0.9675 metric ton in a hectare per year. The farmgate price ranges from P39.00 to P40.00 per kg.

Table 1. Area, Production and Value of Production by Province*

PROVINCE	Area Planted (Ha.)	Area Harvested (Ha.)	Average Yield/Ha (mt.)	Farmgate Price/kg (Pesos)
Agusan del Norte	1,307	750	1.00	39.00
Agusan del Sur	3,111	2,630	0.69	39.00
Surigao del Norte	332	50	0.78	39.00
Surigao del Sur	2,995	2,750	1.40	39.00
CARAGA	7,745	6,180	0.9675	

*Source: Rapid Data Gathering and Updating of Selected Agricultural Export Commodities, FIDA 2005

Table 2. Estimated Potential Area by Province for Abaca Production*

PROVINCE	POTENTIAL AREA (Ha.)
Agusan del Norte	17,900
Agusan del Sur	12,150
Surigao del Norte	1,680
Surigao del Sur	17,780
CARAGA	49,510

*Source: Rapid Data Gathering and Updating of Selected Agricultural Export Commodities, FIDA 2005.

METHODS OF EXTRACTION

There are two most commonly used methods of abaca fiber extraction, namely, hand-stripping and spindle-stripping.

a. Hand-stripping is a process of extracting fiber in which the tuxy, the outer covering of the leaf sheath, is placed under a serrated knife. With pressure applied on the knife, fiber is then extracted by pulling the tuxy manually.

b. Spindle-stripping is a semi-mechanized process wherein the tuxy, placed between a stripping knife and a block, is pulled through a rotating wooden spindle driven by an engine or motor of sufficient power.

FIBER GRADES

Abaca fiber is considered the strongest of natural fibers. It is three times stronger than cotton, two times stronger than sisal fibers and is far more resistant to salt water decomposition than most of the vegetable fibers.

FIBER DESCRIPTION

Abaca fibers are generally classified into 15 grades;

Excellent	(AD, EF, S2, S3)
Good	(I, G, H)
Fair	(JK, M1)
Coarse	(L)
Residual	(Y1, Y2, O, T, WS)

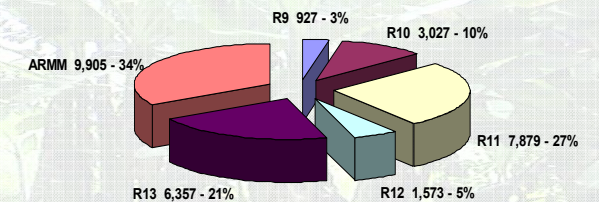
USES

Abaca is processed into cordage, pulp and specialty paper and fiber crafts including hand-woven fabric. The following are the uses of abaca:

- ✘ Cordage products – ropes, twines marine cordage, binders, cord
- ✘ Pulp and paper manufactures – tea bags, filter paper, mimeograph stencil, base tissue, sausage skin, base paper, cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders, and parchment paper, microglass airfilters media, x-ray negative, optical lens wiper, vacuum filter, oil filter.
- ✘ Nonwovens – medical gas masks and gowns, diapers, hospital linens, bed sheets
- ✘ Handmade paper – paper sheets, stationeries, all purpose cards, lamp shades, balls, dividers, placemats, bags, photo frames and albums, flowers, table clock.
- ✘ Fibercraft – handbags, hammocks, placemats, rugs, carpets, purses and wallets, fishnets, doormats.
- ✘ Hand-woven fabrics – sinamay, pinukpok, tinalak, dagmay, sacks, hotpads, hemp coasters and baskets, wall paper, wall cover.
- ✘ Others – wire insulator and cable.

SUPPLY AND DEMAND PROJECTION IN MINDANAO (at 5% growth rate, in MT)

Distribution of Hectarage in Mindanao (2002)



COST AND RETURN (1 HECTARE ABACA PLANTATION)

Variables	Year 1	Year 2	Year 3	Year 4	Year 5
A. Pre-planting Operation					
Land Clearing (Pakyawan)	1,500				
Stocking, Digging, Hauling & Distribution of seedpieces (5 MDs)	550				
¹ Planting & Re-planting (1,600 sdpcs. + 10%)	1,320				
B. Care & Maintenance					
² Ring weeding	4,950	6,120	7,800	8,400	9,000
³ Fertilizer Application	660	240	260	280	300
⁴ Spraying & Roguing	440	960	1,040	1,120	1,200
C. Harvesting					
⁵ Topping, Tumbling, Piling, Tuxying & Hauling, Machine Share (40% of gross income)		17,472	71,680	73,472	75,264
Inputs					
Seedpieces (1,760 pcs. @ 3.00 each)	5,280				
⁶ Fertilizer	5,880	4,800	10,200	10,800	11,400
⁷ Insecticide	600	1,400	1,600	1,800	2,000
⁸ Herbicide	800	1,800	2,000	2,200	2,400
Total Production Cost	21,980	32,792	94,580	98,072	101,564
Yield (Kgs.)		1,120	4,480	4,480	4,480
Price/Kg. (All-in)		39	40	41	42
Gross Income		43,680	179,200	183,680	188,160
Net Income		10,888	84,620	85,608	86,596
ROI		33.20	89.47	87.29	85.26

Notations :

Labor Cost is P110.00/pax and will increase by P10.00 in succeeding years.

¹ P 0.75/Seedpiece

² Ring weeding includes removal of dry leaves. Yr 1- 45 MDs; yr 2- 51 MDs; yr 3, 4 & 5- 60 MDs

³ Year 1- 6 MDs; yr 2, 3, 4 & 5- 2 MDs

⁴ Year 1- 4 MDs; yr 2, 3, 4 & 5- 8 MDs

⁵ harvesting is done in contract or pakyawan basis from topping to stripping

⁶ Yr 1- 4 bags ammonium sulfate @ P720.00/bag & 4 bags complete @ P750.00/bag; Yr 2- 6 bags complete;

Yr 3, 4 & 5- 12 bags complete. 1 bag of fertilizer will increase by P50.00 for the succeeding years.

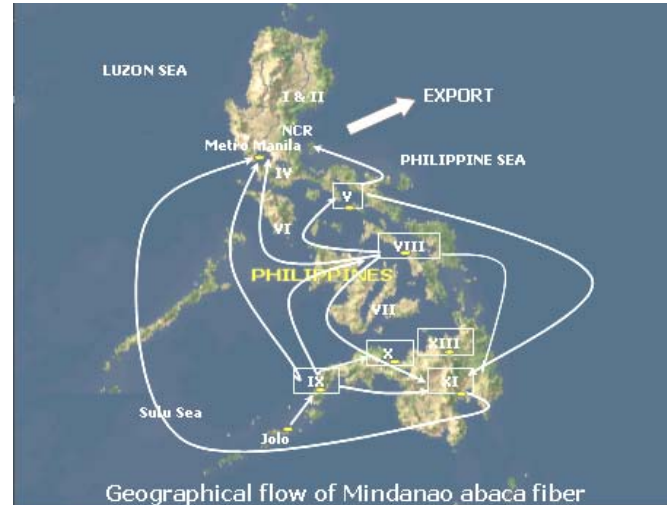
⁷ Yr 1- 2 ltrs @ P300.00/ltr. 1 bag of insecticide will increase by P50.00/ltr for the succeeding years.

⁸ Yr 1- 2 ltrs @ P400.00/ltr. 1 bag of herbicide will increase by P50.00/ltr for the succeeding years

MAJOR MARKETS

Local processors and manufacturers of pulp, cordage and fiber crafts are the major buyers of abaca fiber, getting more than 85% of the total volume of fibers produced in the Philippines. Abroad, the United States, United Kingdom and Japan are the major markets for raw fiber.

Processed abaca are exported to Japan, Germany, United States, France, Singapore, Netherlands, Italy and Korea among others.



REFERENCES

1. Philippine Abaca Industry. Fiber Industry Development Authority.
2. Rapid Data Gathering and Updating of Selected Agricultural Export Commodities and DA-AMAD.

For more inquiries, please contact:

Agribusiness and Marketing Assistance Division

Department of Agriculture

Regional Field Unit No. XIII

Capitol Site, Butuan City

Tel. Nos. (085) 342-4092/ 342-7445

Fax No. (085) 341-2114

Fiber Industry Development Authority

Casa Rivera, Libertad, Butuan City

Tel No. (085) 226-5101

ABACA Industry



Caraga Region