Table 1. Estimated cost and return for the production of some selected handicrafts and novelty items from fruit residues.

	Coco Novelty Items/Handicrafts					
Particulars	Coco Tray	Coco Clock	Flower Vase	Coco Tray		
Costs						
A. Labor	20.00	32.50	12.50	30.50		
B. Materials	10.50	65.00	5.50	15.00		
& Operating						
Expenses						
Total Cost	30.50	97.50	18.00	45.50		
Returns						
Total Production	100.00	150.00	100.00	100.00		
Value of Production	3,050.00	14,625.00	1,800.00	4,550.00		
Sales*	45.00	162.00	30.00	72.00		
Net Profit	14.50	64.50	12.00	26.50		

^{*}Selling prices discounted by 10%.

Table 2. Estimated cost and return for the production of selected from coconut fronds.

		Items					
Particulars	Plant Box	Table Set	Divider	Picture Frame	Dresser		
Costs							
A. Labor B. Materials & Operating Expenses	30.00 18.00	1,050.00 653.00	650.00 165.33	11.25 4.73	900.00 570.00		
Total Cost per Unit	48.00	1,703.00	815.30	15.98	1,470.00		
Returns Total Production (pcs)	50.00	25.00	50.00	100.00	20.00		
Value	2,400.00	42,563.00	40,767.00	1,598.00	29,408.00		
Sales*	80.00	2,000.00	1,000.00	30.00	1,800.00		
Net Profit	32.00	297.00	184.70	14.02	330.00		

^{*}Selling prices discounted by 10%.

Source: WESMARRDEC and PCA-ZRC write-up, 2006.

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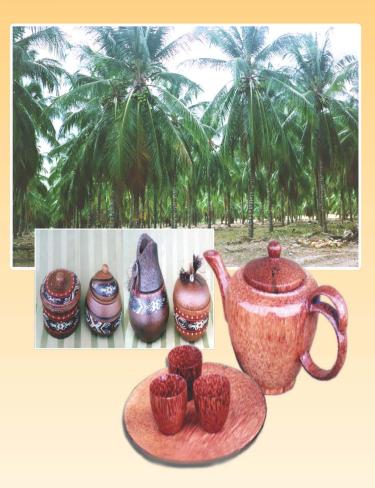
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Handicrafts and Novelty Items from Coconut



Background

Researchers at
the Philippine Coconut
Authority-Zamboanga
Research Center (PCAZRC) introduced the
"one-nut concept" as
a method of producing
wares and novelty items
from a single piece of
coconut fruit. Following
this concept, the
residues from matured



coconut fruits were crafted into new high-value added products by employing the "mix and match" technique.

Coconut varieties such as the PCA SYN VAR or GMA Farmers variety and "Kiamba" green dwarf are made into coco clocks, trays, and other similar products. Fronds are likewise turned into crafts.

Skillfulness, creativity and craftsmanship on the part of the people involved in the job are necessary to come up with new and exciting products. Some of the crafts and novelty

items produced are all-purpose trays, trophies, flower vases and candle holders, chairs, dividers, plant boxes, tables, and dressers. The production cost for such crafts is about 50–60% cheaper than the traditional materials such as wood.



Production Method

A. Coconut Fronds

 Collecting and drying of fronds - Collect fronds during nut harvesting. If they are left in the field, they are attacked by wood-boring insects and fungi that abound on coconut. These pests inflict serious damage to all parts of the fronds, thus, reducing their strength and visual value.

- Drying After gathering, clear fronds of leaflets and dry naturally under shed. Drying time ranges from 4 weeks to 6 weeks depending on weather conditions.
- Machining, ripping/sawing Cut fronds with either manual or motor driven saws. Polish, machine, and assemble using common wood working tools. For added strength, combine the fronds with light woody materials or thin plywood (e.g., 1/8") when used in furniture, novelty items, and other fixtures.
- 4. Preservative treatment Prior to assembly, treat dried raw materials with preservatives such as "Cuprinol" or "Solignum". This is necessary to prevent infestation by wood boring insects. A mixture of Cuprinol and kerosene can be used at 8:1 ratio (kerosene:preservative).
- Assembly Nails and common white glues, e.g., Elmer's are effective fasteners. Split rattan can also be used as a mechanical binder. It not only adds strength, but

also improves the aesthetic appeal of the product.

 Finishing - Sand the wood smooth before finishing. Then apply two to three coats of lacquer sanding sealer before the final coating of varnish or clear gloss lacquer.



 Packaging -Corrugated paperboards, molded and fashioned into rigid boxes, are good packaging materials for products such as picture frames, and other novelty items.

B. Coconut Fruit Residues

Some of the handicraft items that can be produced from coconut fruit residues are trays, plant pots, coco-clocks, cocotrophies, and coin banks. The process involves the following steps:

- The coconut variety "Kiamba" green dwarf is suitable for making coco clock and trophies because of its size and shape. Likewise, the dwarf variety "Mangipod" is a good material for making all-purpose trays.
- Slice/cut the materials using a sharp narrow band saw (2" wide). Use a motor-driven sander for sanding. Use glues such as PVA or urea formaldehyde and wooden

- dowels as fasteners to assemble the product. Nails or any metal fasteners could not easily hold the husk due to its naturally loose structure.
- For coco-clock, saw parallel through the polar section of the nut. For the trays, it is ideal to cut across the equatorial section.
- 4. When finishing, machine-sand with coarse abrasives to level off the surface and make it even. Further, sand manually using a fine abrasive for a smooth surface prior to application of a topcoat of varnish.
- 5. Since the husk takes in a great quantity of finishing materials, seal with PVA emulsion glue before applying topcoat. Among the suitable top coating materials are clear gloss lacquer, polyurethane and varnish. Brush on three to four coatings of the finishing material. It is best to topcoat during hot and dry weather.

