For more information, please contact:

Dr. Stanley C. Malab
Engr. Jose A. Zafaralla

Consortium Director, ILARRDEC
Batac, Ilocos Norte
Tel. Nos. (077) 792-3420
Email: ilarrdec@yahoo.com
Website: http://www.mmsu.edu.ph/ilarrdec
E-kawayan Technology

The principle of engineered bamboo (E-kawayan) is based on the concept that as for logs when converted into lumber it can be designed to suit specifications for various uses. Bamboo poles when processed into Kawayan tiles can be designed for various products. The technology was introduced through the development of the Kawayan Tile Machine (KTM) by the Mariano Marcos State University (MMSU). The tile machine can convert kawayan poles directly into slats of different sizes 20-30 mm width by 10 mm thickness by 20 cm to 2 m long.

E-kawayan Machines

Technical Specifications

- **Power requirement**: 2 hp 220 V
- **Approximate wt**: 80 kg
- **No. of operators**: 1 operator + 1 helper
- **Width of strips**: 25 mm
- **Length of strips**: 0.3 m to infinity
- **Output day (max)**: 1,150 pcs @ 25 mm x 2 m long
- **Area equivalent/day**: 57 m²
- **Work space requirement**: 6 sq m
- **Price**: $1500

Technical Specifications

- **Power requirement**: 1 hp 220 V
- **Approximate Weight**: 60 kg
- **Machine Dimension**: L x W x H (m) 1.5 x 0.75 x 1.5
- **Space requirement**: 9 (sq m)
- **Price**: $750

Bamboo Kiln Dryer

Technical Specifications

- Dimensions and Capacity Inside: 6W x 7H x 9’L, Volume: 378 ft³
- Capacity: 350 poles @ 4” d x 8’ long; Construction: Wall Outside-plain GI sheet g18, Middleinsulator– hardcork Inner– Hardiflex; Floor- ceramic tiles, plywood, plain GI sheet g18 Heat exchanger-plain stainless steel, Furnace- High alumina bricks Fuel: Agricultural and Forest Waste; Max temperature: 110°C Sensible heat: 0.2 kg fuel°C rise Fuel consumption: 3.78 kg/hr @ 80°C
- Rate of MC evaporated: 2.45 kg/hr Kg fuel consumption per Kg moisture evaporated: 2.08 Air circulation: 2.3 m/sec powered by 1 hp electric motor: 2 fans, 2 air-vents Drying time: 3-8 days at 12 hrs operation/day; to reach 13 % MC; Price $6000

Bamboo Pole Cutter

Technical Specifications

- **Daily Max Output**: 400 cuts
- **Power requirement**: 1 hp 220V
- **Approximate Weight**: 60 kg
- **Machine Dimension**: L x W x H (m) 1.5 x 0.75 x 1.5
- **Space requirement**: 9 (sq m)
- **Price**: $750

Handicraft

Household and Office Essentials