



Countryside Development

- Crafts and Textiles
- Forest Products and Processes

Crafts and Textiles

Technology: Gitara ni Juan

Description: Gitara ni Juan are high-quality and affordable local guitars made from Philippine wood and developed using standardized guitar-making processes in terms of design, consistency, intonation, sound quality, strength, stability and playability.

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CD-1

Technology: CNC Router “Super Lilok”

Description: A combination of a router and computer numerical control device, Super Lilok can capture sophisticated designs by cutting and engraving on wood, metals or acrylics. Its speed can be adjusted via a software controller, resulting to higher production yield and work efficiency, and consistent and uniform output.

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Crafts and Textiles

CD-2

Technology: Modified Handloom Weaving Machine

Description: PTRI's modified handloom weaving machine has a new and sleek design using metal and wood. This makes it more efficient to weave natural dyed fibers from abaca, banana, pineapple and other indigenous materials.

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CD-3

Technology: Innovation Center for Yarns and Textiles: Spinning Process

Description: PTRI's Innovation Center for Yarns and Textiles has a newly acquired ring spinning machine which spins local fibers, such as abaca, banana and pineapple, into yarns that can be used by handloom weaving communities and commercial millers or knitters in the country.

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Crafts and Textiles

CD-4

Technology: PTRI-Developed Natural Dyes Technologies

Description: The Philippine Textile Research Institute of the DOST champions the revival of natural dyes with the use of scientific methods and techniques. The extraction of natural dyes from over a hundred dye-yielding plants, conversion of these dyes to powder form, and scaled-up natural dyeing are technological improvements paving the way for an accelerated entry of natural dyed materials in the market. To this, silkscreen printing pastes and textile paints, currently in the research and development pipeline, add another value proposition.

An alternative to harmful synthetic dyes, natural dyes present possibilities for growing your own color and reverting to traditional dyeing with technological intervention from DOST-PTRI.

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Crafts and Textiles

CD-5

Technology: Twining / Twisting Machine

Description: The twining/twisting machine simplifies and fine tunes the twining and twisting process for textiles into one machine. The machine also has a suitable warping frame intended for twined/ twisted indigenous fiber materials.

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PTRI-developed twining machine with twisting attachment

CD-6

Technology: Geo Handloom Machine

Description: The geo handloom machine is a special type of loom with specific reeds, harnesses and cloth beam and has a modified warping mechanism to help in the production of geotextile nets and mats.

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Forest Products and Processes

CD-7

Technology: Non-Wood Dryers

Description: FPRDI's furnace-type dryers for non-wood materials include a panelized metal compartment dryer for water hyacinth stalks, pandan, sea grass and abaca; and a low-cost kiln-type handicraft dryer with a single-line diameter flue pipe.

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CD-8

Technology: Heat Treatment for Wood Pallets

Description: The heat treatment uses FPRDI's modified furnace-type dryer with computerized data logger as a safe, inexpensive and eco-friendly way of eliminating pests and diseases infesting wooden pallets and other wooden packaging materials.

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Forest Products and Processes

CD-9

Technology: Bamboo Technologies

Description: FPRDI's innovative technologies for processing bamboo include bamboo veneer lathe, bamboo flattening machine, do-it-yourself bamboo shelter and bamboo joining system.

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CD-10

Technology: Preservative Treatment for Electric and Power Poles

Description: Copper azole is an eco-friendly wood preservative that inhibits decay, drying and insect infestation in utility poles. Copper azole treatment allows for industrial tree plantation species to be used as utility poles in power and telecommunication lines.

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Forest Products and Processes

CD-11

Technology: Abaca Fiber for Specialty Paper

Description: Abaca waste fiber can be added to local old corrugated cartons to reinforce and upgrade the quality of local packaging paper such as fiberboard and corrugated medium. The use of abaca waste fibers not only encourages recycling but it also generates employment and allows import substitution.

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CD-12

Technology: Base Paper from Abaca Waste Fiber for Currency Notes

Description: FPRDI technology has shown that lower-grade abaca fibers can be used in producing base paper for currency notes. It has shown fiber strength similar to high-grade abaca and better folding endurance, tear index and tensile strength compared to salago fiber.

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