NATIONAL AGRICULTURAL INNOVATION PROJECT (COMPONENT 2)

A VALUE CHAIN ON UTILIZATION OF BANANA PSEUDOSTEM FOR FIBRE AND OTHER VALUE ADDED PRODUCTS

Overall progress and achievements – At a glance

Products	Value added products	Beneficiaries	Remarks
A) Fibre			
Yarn preparation trial on jute spinning m/c and yarn to fabrics	About 3.7 t yarn was prepared on jute spinning system. Yarn was used for making fabrics of different qualities. From fabrics products like coat, apron, gloves, binders *etc.* were prepared.	Spinning and Textile industries	Improvement in yarn quality is necessary to make it suitable for fabric making at commercial scale
Non-woven fabrics	About 2 t non woven fabrics of different GSM (500, 7000 and 1000) have been prepared. Quality testing is in progress and can be used for wall panelling, sound proofing *etc.*	Textile industries	Fibre can be directly used for preparing non-woven fabrics, for which trials have been successfully conducted, cost reduction technology over woven fabric.
Paper At industrial scale	As a raw material for preparing cheque and grease proof paper	Paper industries	Fibre cost is high as compared to other available raw material
At handmade level	As raw material for preparing handmade paper, from which various stationary articles like files, folders, box files, binders, note pads *etc.,* can be prepared	Cooperatives, local entrepreneur	Suitably used as a raw material by blending with paddy straw, bagasse, cotton rags, scutcher, waste paper *etc.*
Extraction of cellulose	Extraction of MCC from banana fibre has been standardized at laboratory scale	Pharmaceutical industries for coating tables	Tested and properties found to match with commercially available MCC
Handicrafts items	Preparing various articles like bags, dolls, decorative wall hangings, key chains *etc.*	Cottage/ rural industry, SHGs and NGOs	--
B) Scutcher			
Converting into manure and as a fish feed	As manure: Tested in crops like banana, sugarcane and papaya and recommended to farmers.	Farmers	Found to comparable performance with other organics
	As fish feed – pelleting of vermicompost + cattle feed	Fish farming community	30% substitution of cattle feed, cost reduction by 32 per cent
Particle board	As a partition	Local industries	--
C) Sap			
Sap and enriched sap	As a liquid fertilizer or nutrient spray	Farmers/ cooperatives/ entrepreneur	Induce early transplantable stage in nursery seedlings, saving of 20-30 % chemical fertilizer
Mordant	For colour fastening of dyes	Textile dyeing industries	Good fastening properties of various shades
D) Central core			
Edible products	For preparing candy, pickles, RTS *etc.*	Food processing industries	Found to contain Fe and vitamins (B_2 and B_5) in appreciable amounts.

Lead centre: Navsari Agricultural University, Navsari (Gujarat)
Partners: Central Institute for Research on Cotton Technology, Mumbai (Maharashtra)
Manmade Textile Research Association, Surat (Gujarat)
JK Paper Ltd., Songadh

BEFORE NAIP

AFTER NAIP

YARN & FABRICS

SPECIALITY PAPER

MCC

HANDICRAFTS

VERMICOMPOST

ORGANICS

FISH FEED

PARTICLE BOARD

HANDMADE PAPER

LIQUID FERTILIZER

SPRAYING

MORDANT

CANDY

RTS

PICKLES