APPENDIX - I

QUESTIONNAIRE TO EVALUATE THE HAND OF SOFTENED BANANA FIBERS

<u>Title of the Study</u>: Banana fiber to fabric: Process optimization for improving its spinnability and hand

Amrita Doshi Researcher Prof. Anjali Karolia *Guide*

Kindly give your order of preference (Rank 1-3) for soft feel of the banana fibers, which will be send for spinning.

| Sr. | | | Order of Rank | | | | |
|-----|------|-------------|---------------|----|-----|----|---|
| No. | Name | Designation | Ι | II | III | IV | V |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
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| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |

Thank you

APPENDIX - II

QUESTIONNAIRE TO EVALUATE THE MARKET ACCEPTANCE OF CONSTRUCTED BANANA FABRICS

OPINION SCHEDULE

Dear Respondent,

The undersigned is a research scholar in the Department of Clothing and Textiles, The Maharaja Sayajirao University of Baroda, Vadodara. Title of the research work is "Banana fiber to fabric: Process optimization for improving its spinnability and hand".

Banana fibers, one of the minor, cellulosic, vegetable fibers can be obtained from the pseudostem of banana plant. The pseudostems are normally discarded as biomass after harvesting the fruit. In the present study banana fibers have been treated with enzymes and chemicals for softening the fibers. Various types of yarns have been spun using the banana fibers and its blends. Various types of plain weave fabrics have been prepared using these banana yarns as weft. Specifications of 11 specimen fabrics are given in the Table 1.

Fabric specimens are displayed in the swatch file for aesthetic and handle test. Kindly give your opinion regarding the fabrics by filling this questionnaire.

Look forward for your kind co-operation.

Thanking you,

Amrita Doshi

BSR-SRF

Prof. Anjali Karolia

Guide & Head

Department of Clothing and Textiles

Faculty of Family and Community Sciences

The Maharaja Sayajirao University of Baroda

Vadodara

Respondent's Background Information

Name :
Age :
Gender :
Educational Qualification :
Profession :
Institute/ Industry affiliated to:
Contact Details :

Appendix

 Table 1: Fabric Specifications

| Fabric Code | Type of Treatment | Mode of Spinning Banana yarn | Warp | Weft | Weft yarn Count | Mode of Weaving | GSM |
|----------------|------------------------------------|---------------------------------|---------|--|--------------------|---|-----|
| Fabric A | Chemical | Ring spinning Machine | Viscose | 75/25 Viscose / Chemical Treated Banana | 8.1's | Power-loom | 297 |
| Fabric B | Chemical | Ring spinning Machine | Modal | 75/25 Modal / Chemical Treated Banana | 8.13's | Power-loom | 242 |
| Fabric C | Chemical | Ring spinning Machine | Excel | 75/25 Excel / Chemical Treated Banana | 16's | Power-loom | 260 |
| Fabric D | Enzyme | Ring spinning Machine | Viscose | 75/25 Viscose / Enzyme Treated Banana | 7's | Power-loom | 258 |
| Fabric E | Raw | Jute Spinning System | Cotton | 100% Banana (Raw) | 1.34's | Hand-loom | 435 |
| Fabric F | Enzyme treatment on Fabric | Jute Spinning System | Cotton | 100% Banana (Raw) | 1.34's | Hand-loom Fabric treated with Enzymes | 384 |
| Fabric G | Chemical treatment on Fabric | Jute Spinning System | Cotton | 100% Banana (Raw) | 1.34's | Hand-loom Fabric treated with Chemicals | 341 |
| Fabric H | Raw | Phoniex Charkha | Cotton | 100% Banana (Raw) | 3.1's | Hand-loom | 287 |
| Fabric I | Enzyme | Phoniex Charkha | Cotton | 100% Banana (Enzyme Treated) | 3.2's | Hand-loom | 218 |
| Fabric J | Chemical | Phoniex Charkha | Cotton | 100% Banana (Chemical Treated) | 11's | Hand-loom | 164 |

QUESTIONAIRE

| Q1. | Have | Have you seen minor fiber fabrics earlier in any of these applications? | | | | | |
|--------------|--------------|--|----------------------------|-----------------------|--|--|--|
| | a. | Apparels | Yes | No | | | |
| | b. | Home Furnishings | Yes | No | | | |
| | c. | Non-woven | Yes | No | | | |
| Q2. | If ye | s, mention the details. | | | | | |
| | | | | | | | |
| | | | | | | | |
| Q3. | Did y | you like the aesthetics of ba | nana fabrics? | | | | |
| | Yes | | No | | | | |
| Q4. | Do y | Do you like the handle (feel) of the banana fabrics? | | | | | |
| | Yes | | No | | | | |
| Q5. | Will | Will these fabrics be suitable for niche market? | | | | | |
| | Yes | | No | | | | |
| Q6. | Doe fabri | s the physical appearances ocs? | of the banana fabrics, ren | mind you of any other | | | |
| | Yes | | No | | | | |
| Q7. menti | • | s, kindly | | | | | |
| Q8. | Have | e you seen spun banana yarr | before? | | | | |
| | Yes | | No | | | | |
| Q9. | • | If yes, mention where you have seen and how that was different from these yarns. | | | | | |
| | | | | | | | |
| Q10. | the b | ase of banana blended yarns vanana union fabric is about na blend fabrics? | <u> </u> | | | | |
| | Yes | | No | | | | |

| Q11. | 1. Do you think that these fabrics would be commercially viable? | | | |
|-----------------|---|-------------------------------|-------------------|--|
| | Yes | No | | |
| Q12. | If banana fabrics are as exper | nsive as Linen, would you pro | efer buying them? | |
| | Yes | No | | |
| Q13. | If the supply of fibers is regular, do you think banana fabrics can get into regular production for commercial use? | | | |
| | Yes | No | | |
| Q14. | Do you think that constructing the banana blends can be an interesting project for the government scheme of Start up India? | | | |
| | Yes | No | | |
| Q15. | Which treatment is more effective for banana fibers? | | | |
| | a. Enzymes | b. Chemicals | | |
| Q16. | Treatment is more effective a | t which stage? | | |
| | a. Fiber stage | b. Fabric stag | ge | |
| Q17. | Which spinning method is more effective? | | | |
| system | a. Hand spinning | b. Charkha spinning | c. Jute spinning | |
| Q18. fabrics | Kindly rank your order of pre | eference for hand spun and ha | andloom woven | |

| Sr.No: | Fabric Code | Order of Preference |
|--------|-------------|---------------------|
| 1 | Fabric H | |
| 2 | Fabric I | |
| 3 | Fabric J | |

Q19 Kindly rank your order of preference for fabrics made on Jute spinning system

| Sr.No: | Fabric Code | Order of Preference |
|--------|-------------|---------------------|
| 1 | Fabric E | |
| 2 | Fabric F | |
| 3 | Fabric G | |

Q20 Kindly rank your order of preference for machine spun and powerloom fabrics

| Sr.No: | Fabric Code | Order of Preference |
|--------|-------------|---------------------|
| 1 | Fabric A | |
| 2 | Fabric B | |
| 3 | Fabric C | |
| 4 | Fabric D | |

Q21. Kindly rank your order of preference for all the banana fabrics

| Sr.No: | Fabric Code | Order of Preference |
|--------|-------------|---------------------|
| 1 | Fabric A | |
| 2 | Fabric B | |
| 3 | Fabric C | |
| 4 | Fabric D | |
| 5 | Fabric E | |
| 6 | Fabric F | |
| 7 | Fabric G | |
| 8 | Fabric H | |
| 9 | Fabric I | |
| 10 | Fabric J | |

Thank you for sparing your precious time