

Kasturi Cotton Bharat - Pinnacle of Superior Indian Cotton

In order to bring Indian cotton to level of certain quality of International standard as well as to enhance export opportunities and foreign earnings, Government of India has launched "Kasturi Cotton Bharat" brand for Indian Cotton. Cotton Textile Export Promotion Council (TEXPROCIL) is the implementing agency with the support of Cotton Corporation of India Ltd (CCI). The program aims at creating premium value for cotton grown in India as per benchmarked specifications. ICAR-CIRCOT is an associate member of the program and plays a vital role finalizing protocols for test parameters and acceptance criteria of cotton which is to be certified for long and extra long staple cotton. ICAR-CIRCOT has been entrusted to act as nodal agency for preparation of SOP and organizing awareness/sensitization programme for the

farmers for "clean cotton picking" for controlling trash and contamination at farm level. ICAR-CIRCOT is also playing major role in the evaluation of samples related with "Kasturi cotton" branding. Over all, this initiative will help Indian cotton to fetch premium price as against the current trend of being sold at a discount in domestic and international market. Also, the farmers producing the quality cotton can get incentives for their products.

Kasturi Cotton Specifications

Kasturi cotton is branded based on cotton fibre quality specifications with benchmark values for staple length, uniformity index, micronaire, bundle strength, colour, moisture content and trash. The current Kasturi cotton standards are as below:

1. Kasturi Cotton Specification for Long Staple Cotton

Name / Parameters	Kasturi Cotton 28 mm+	Kasturi Cotton 29 mm+	Kasturi Cotton 30 mm+	Kasturi Cotton 31 mm+
Staple Length	28 mm+	29 mm+	30 mm+	31 mm+
Uniformity Index	83% or more	83% or more	84% or more	84% or more
Fibre Strength	29.0 (-1.5) g/tex	29.5 (-1.5) g/tex	30.5 (-1.5) g/tex	32.5 (-1.5) g/tex
Micronaire Value	3.7 to 4.7	3.7 to 4.5	3.7 to 4.5	3.7 to 4.5
RD Value	76+	76+	76+	76+
Trash	2% or below	2% or below	2% or below	2% or below
Moisture Content	8% or below	8% or below	8% or below	8% or below

Kasturi Cotton

In the long staple cotton category, there are 4 types of kasturi cotton specifications are available namely kasturi cotton 28mm+ to 31mm+. The bench mark values of fibre qualities are fixed in a way that superior quality cotton bales can only fulfil the requirement. The bench mark value for trash is kept at 2% and below which will directly benefit the spinners by way of better yarn realization. The uniformity index of 83 & 84% of cotton ensures the yarn unevenness at minimum level. The

benchmark value of micronaire i.e 3.7- 4.5 ensures reduced neps in yarn and good dyeing behavior. The bench mark value of strength ensures seamless spinning operation with reduced end breaks. The colour of the cotton is important quality indicator. For kasturi cotton, the benchmark Rd value is 76 and above ensures better yarn appearance and dyeability. Overall, the kasturi cotton specifications are fixed in a such a way that superior quality cotton can only pass the testing.

2. Kasturi Cotton Specification for Extra Long Staple (ELS) Cotton

Name / Parameters	Kasturi Cotton 32 mm+	Kasturi Cotton 33 mm+	Kasturi Cotton 34 mm+	Kasturi Cotton 35 mm+
Staple Length/UHML	32 mm+	33 mm+	34 mm+	35 mm+
Uniformity Index	83% or more	83% or more	85% or more	85% or more
Fibre Strength	35.0 (-1.5) g/tex	36.0 (-1.5) g/tex	36.5 (-1.5) g/tex	37.5 (-1.5) g/tex
Micronaire Value	3.0 to 4.2	3.0 to 4.2	3.2 to 4.2	3.0 to 4.0
RD Value	73+	73+	74+	74+
Trash	2% or below	2% or below	3% or below	3% or below
Moisture Content	8% or below	8% or below	8% or below	8% or below

In the extra-long staple cotton category, there are 4 types of kasturi cotton specifications are available namely kasturi cotton 32mm+ to 35mm+. The bench mark values of fibre qualities are fixed considering the availability of such cotton produced in India with the best possible quality. The bench mark value for trash is kept at 2% and below and 3% or below for 34mm+ and 35 mm+ which will directly benefit the spinners by way of

better yarn realization. The quality bench mark values are kept in such a way to promote ELS cotton production in the country.

AFIS testing of long staple category Kasturi cotton vis-vis worldwide cotton

As we aware that Kasturi cotton branding is done based on HVI testing. An attempt has been made by ICAR-CIRCOT to compare the fibre properties of

Kasturi Cotton

Kasturi cotton certified cotton with the world wide available cotton as well as Indian cotton commercially available. The kasturi cotton lot failed during testing also taken for comparative purposes. The following cottons have been taken for comparative purposes

1. Brazillian Cotton
2. Australlian Middling
3. Juli Mali
4. Tanzanian cotton
5. Togo Togi cotton
6. Commercial Indian cotton ((com. Ind)
7. Kasturi cotton- failed lot. CCI is selling this cotton as Kasturi platinum
8. Kasturi cotton certified (Kasturi cert)

All the cotton samples were tested in AFIS for Nep, length and maturity modules. The salient findings are given below

A. Neps Module Testing

The Total nep count (Cnt/g), Fibre Nep Count(Cnt/g) and seed Coat Nep Count(Cnt/g) of the cotton samples are given as Fig 1, 2 & 3 . The

results of Neps module testing indicates that certified Kasturi cotton has very low total Nep Counts than Brazilian, Australian and African cottons. The Brazilian and Australian cottons are mechanically harvested and showed total Nep Count to the tune of 200-250 counts per gram. The total Nep Count values of Indian count is lower by more than 50%. The Kasturi certified Indian cotton showed total Nep Count values significantly lower than commercially available Indian cotton which showed its superior properties. The fibre nep count results also showed similar trends. The results of seed coat nep count indicates that certified kasturi cotton has less seed coat neps at par or lesser than Brazilian, Australian and some African cottons. The seed coat nep which is considered one of the major issue in Indian cotton is taken care in the Kasturi cotton certified lots which showed significantly lesser counts (26%) that commercially available Indian cotton and Kasturi cotton failed lots. The lower seed coat Nep Count in kasturi cotton significantly influence the yarn quality especially making it suitable for finer counts.

SIMA Placement Services

SIMA Placement Cell helps member mills in sourcing and selecting suitable candidates for different positions. SIMA would use its wide contacts, data bank and also release advertisements, if mill desires. Please send your requirements to

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Kasturi Cotton

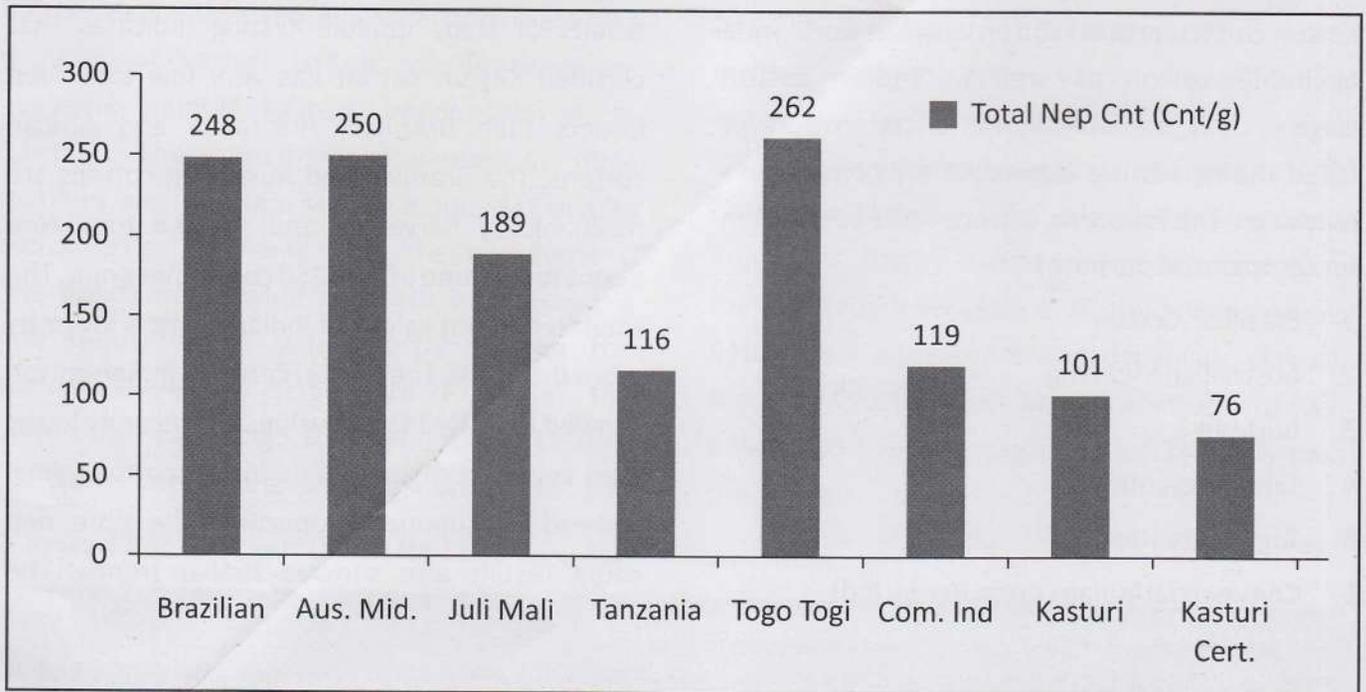


Figure - 1 : Comparison of Total Nep Counts of Kasturi Cotton vis-à-vis world wide cotton

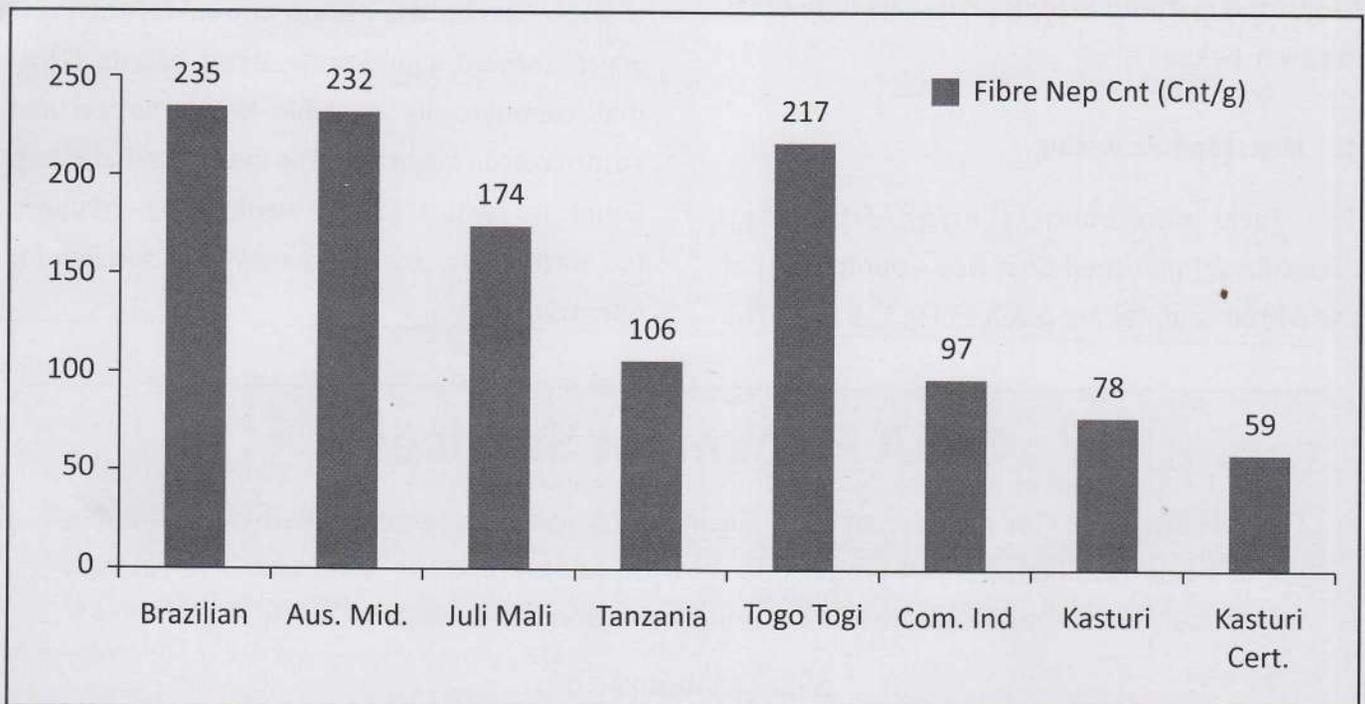


Figure - 2 : Comparison of Fibre Nep Counts of Kasturi Cotton vis-à-vis worldwide cotton

Kasturi Cotton

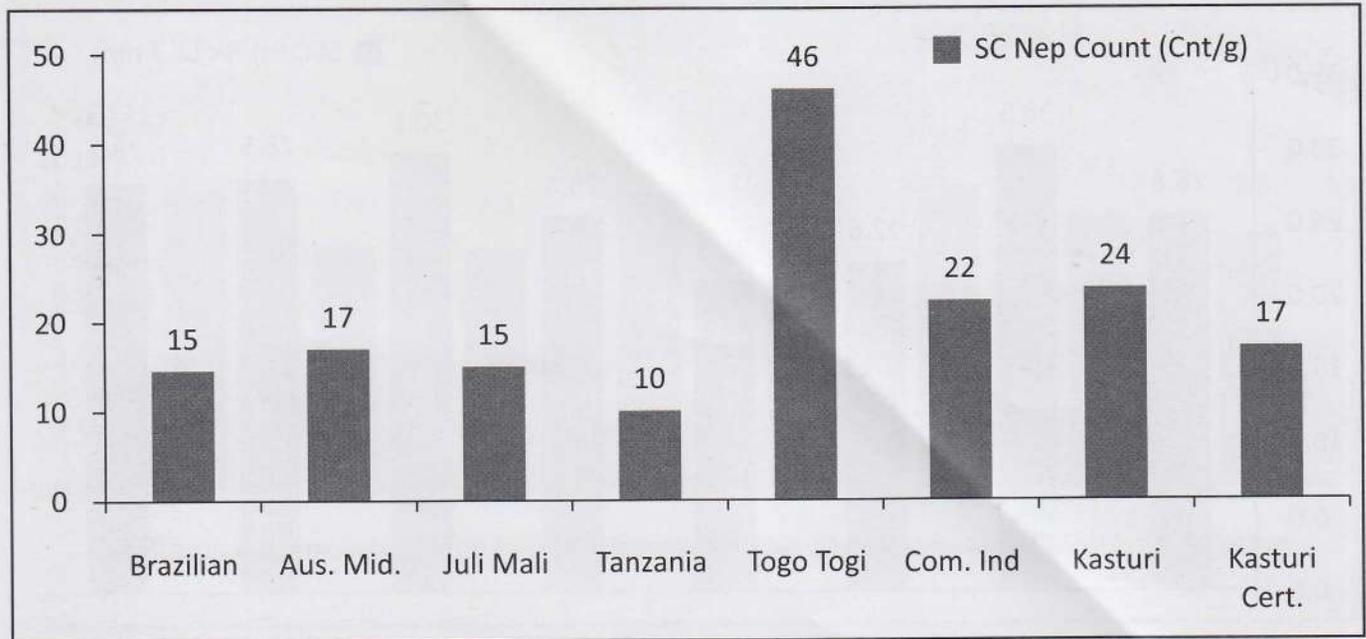


Figure - 3 : Comparison of Seed Coat Nep Counts of Kasturi Cotton vis-à-vis worldwide cotton.

B. Length and Maturity Module

The short fibre content by weight, SFC(W) and by number SFC (n) of different cottons are given in Figure 4 & 5. The results indicated that Kasturi certified cotton has short fibre content at par with

Brazilian and Australian cotton. The maturity and Immature Fibre Content values of Kasturi certified cotton is excellent. Kasturi cotton exhibited higher maturity and lower immature fibre content than the other important fibres and commercially available Indian cotton.

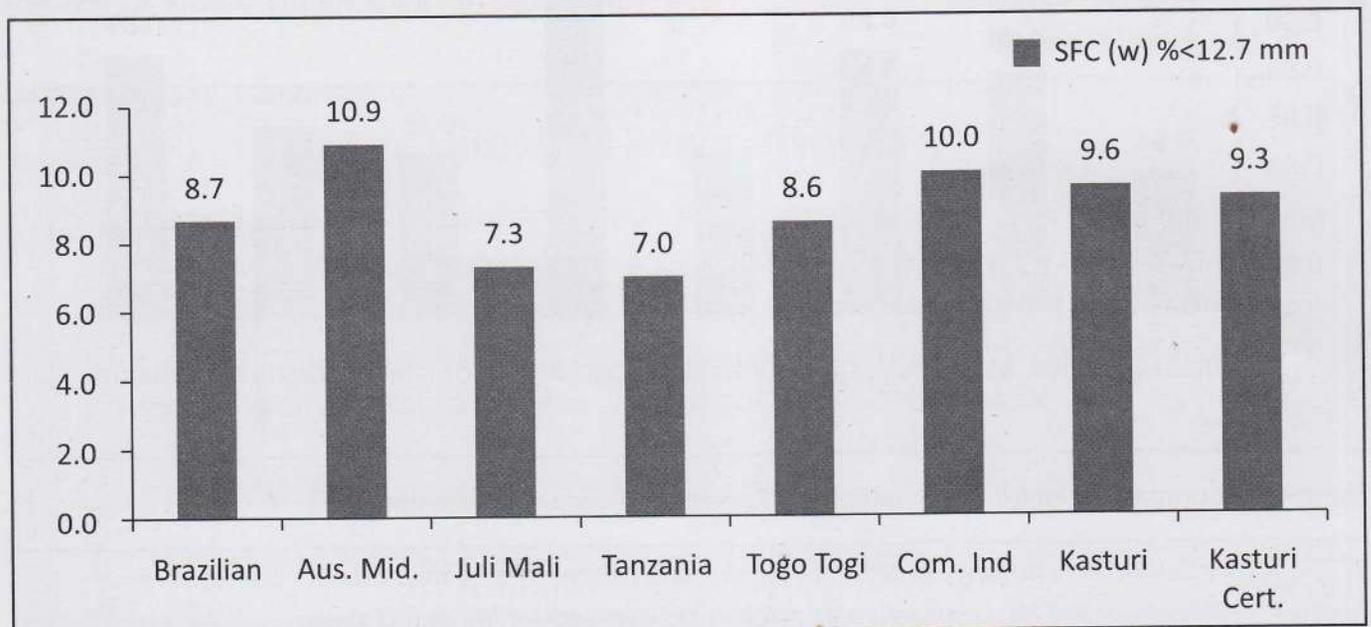


Figure - 4 : Comparison of SFC (n) of Kasturi Cotton vis-à-vis worldwide cotton

Kasturi Cotton

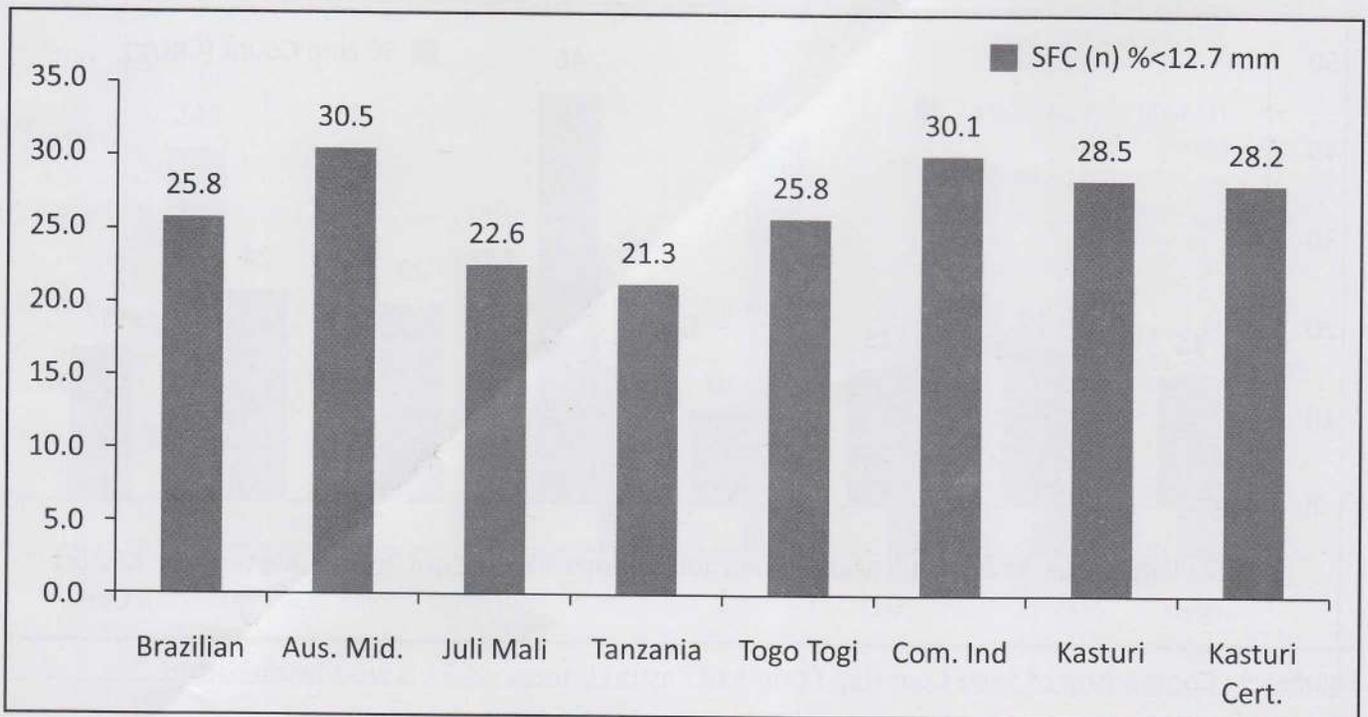


Figure - 5 : Comparison of SFC (w) of Kasturi Cotton vis-à-vis worldwide cotton

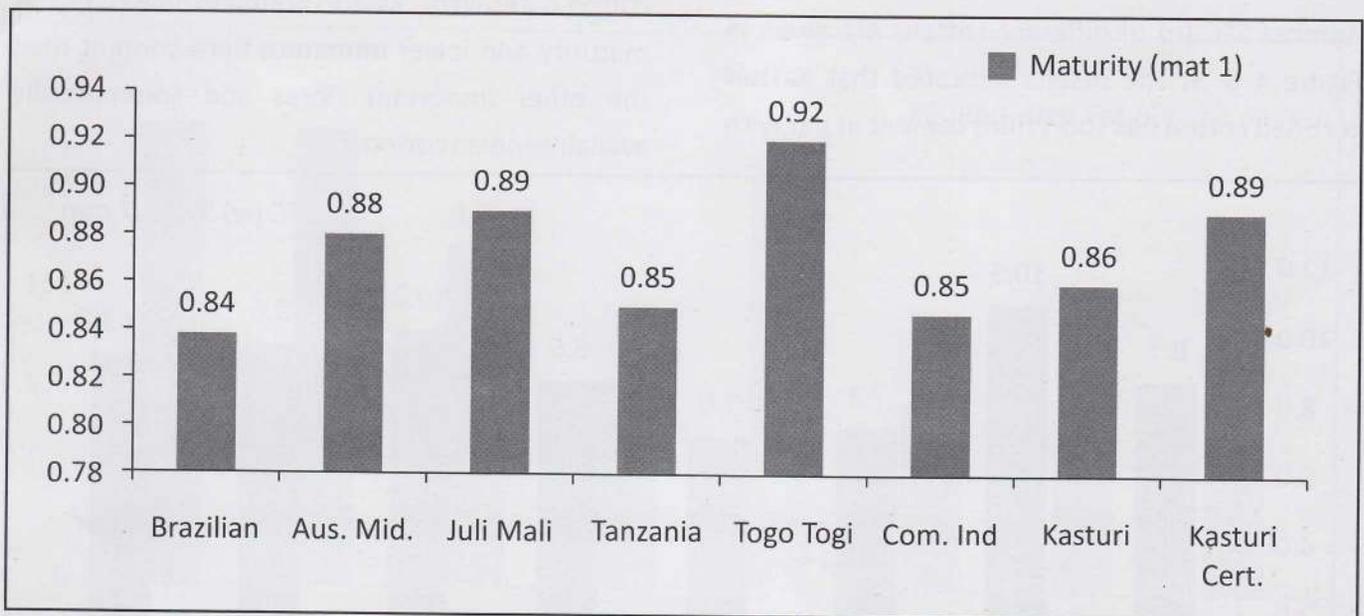


Figure - 6 : Comparison of Maturity of Kasturi Cotton vis-à-vis worldwide cotton

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Kasturi Cotton

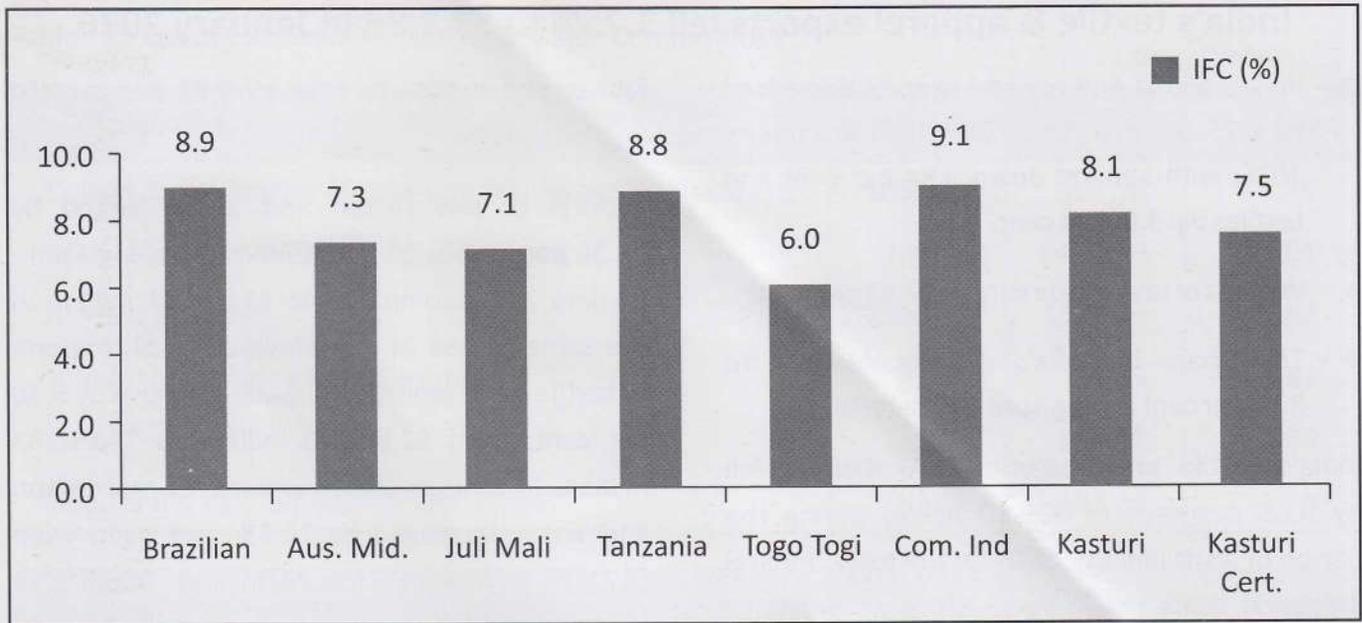


Figure - 7 : Comparison of Immature fibre content of Kasturi Cotton vis-à-vis worldwide cotton

Kasturi Cotton marks the new standard in cotton quality with assured quality bench marks. The quality testing is done at accredited laboratories. Apart from quality, it also provides end to end traceability. Customer testimonials indicates that the use of Kasturi cotton leads to higher yarn

realization than normal Indian cotton and at par with any imported cotton. The yarn appearance from Kasturi cotton is good with lustre. The Kasturi cotton can be spun to fines count and woven to finer fabrics with perfect dyeability.

Inputs received from ICAR-CIRCOT

Techno Facts Benchmarking Survey

SIMA conducts this benchmarking survey on a monthly basis by collecting key performance indicators from mills. Processed report showing the position (rank) of these performance indicators and countwise production among participating mills are sent to the participating mills. The Report helps mills in taking corrective actions in improving productivity and better utilisation of factors of production.

For participating in the Survey please feel free to contact -

SIMA Industrial Engineering Division