

## **Success Story**

### **CRIJAF SONA brings golden glory for jute fibre**

Jute is one of the important commercial fibre crop grown by majority of the small and medium farmers of West Bengal. This fibre crop is very special to them as its harvesting time coincides with the Great festival of Durga Puja. Retting is one of the crucial operation that determines the quality of jute and subsequently its price. The farmers of West Bengal generally ret their jute plants on road side ditches, canals, ponds and other stagnant water sources due to the lack of availability of slow flowing water sources, resulting in very low quality of fibre which fetches very low price in the market. To get quality fibre from stagnant water retting, CRIJAF SONA was developed by ICAR CRIJAF. The technology is very promising as it rets fibre in 6 – 7 days less than the conventional retting and improves the grade of fibre by at least 1- 2 grades. The institute had first demonstrated CRIJAF SONA at its extension centres which are situated at major jute growing districts like Nadia, Hooghly, Murshidabad, North 24 Parganas and Malda. Mr Kenaram Ghosh from Panchkahania village under Haringhata Block of Nadia district was an innovative farmer who was very much interested in new technologies. He was convinced by the results of the demonstration and tried CRIJAF SONA powder for retting of his own jute plants. As per the directions given by ICAR-CRIJAF scientists, he used soil albeit covered in cement bag as jak material instead of banana plants and mud. To his surprise, he could complete the first set of retting exercise in 13 days instead of usual 21 days in conventional retting. He could utilise the same retting water for two more retting in a sequence. The retted jute fibre had good colour and lustre. He got extra Rs 250/q fibre compared to his fellow farmers in the initial year. He realised that by using CRIJAF SONA, he can earn at least Rs. 6000-11000/ha additional income over conventional method of retting. This increased income of Mr Kenaram Ghosh had caused a ripple effect to the other neighbouring farmers. In the second year majority of the farmers of Panchkahania extension centre had tried CRIJAF SONA in the retting of their own jute crop and were highly satisfied with the results. Mr Ghosh had testified that CRIJAF SONA really helped to gain golden glory to jute fibre. The use of formulation is environment safely and the microbes used are not pathogenic and handling and use of the formulation is very easy. The risk of non-retting of jute and quality degradation under stagnant water retting can be overcome by using this microbial formulation. The middle men started competing to purchase jute from farmers of Panchkahania village due to its golden colour, lustre and strength. This prompted the jute farmers from nearby villages

like Bhawanipore, Bramhapore and Satyapole to approach ICAR-CRIJAF for detailed information about CRIJAF SONA. The trickling down of the technology details to farmers were very fast, since ICAR-CRIJAF could organise many farmer- led extension programmes in the nearby villages with the help of the farmers under the leadership of Mr Ghosh. Now the farmers swear that after using CRIJAF SONA, they have regained the confidence in jute farming, since they need not worry about the availability of huge quantity of water for retting and they are quite sure about the quality of retted jute fibre.

#### Economical evaluation of the technology for 1 ha area during 2013 -16

Particulars	Conventional method	Microbial formulation retting
All cost till harvesting and steeping	Rs. (A)	Rs. (A)
Cost of microbial powder	Nil	Rs. (A) + Rs. 1000
Fibre Grade	TD 6 / TD 7	TD 4 / TD 5
Extra remuneration per quintal fibre	Nil	Rs. 300 /q / improved grade
Increase in fibre yield	-----	8 – 10 %
Avg. Fibre Yield (q / ha)	30.00	32.40
Avg. Fibre selling price	Rs. 2700 / q	Rs. 3000 / q
Total Income from fibre selling	Rs. 81,000	Rs. 97,200
Net gain	----	Rs. 16,200 – Rs. 1000 = Rs. 15,200
<b>Profit over conventional method</b>	----	<b>Rs. 15,200 /- ha</b>

#### Advantages of Microbial Retting with CRIJAF SONA Powder

- Consists of three pectinolytic bacterial strains of *Bacillus pumilus*
  - Retting duration reduced by 6 – 7 days
  - Improvement in fibre grade by 1- 2 grade
  - Increase in fibre weight by 5 – 8 %

Gain from extra yield (Rs. / ha)	Gain due to improvement in quality (Rs. / ha)	Gross Profit (Rs./ ha)
2.40 q /ha x Rs. 3000 / ha = Rs. 7200	32.40 q/ha x Rs. 300 /q (for 1 grade improvement) = Rs. 9720	Rs. 16,920

- Commercial production & marketing by :
- West Bengal Pharmaceuticals & Phytochemicals Development C  
@ Rs. 44 / kg pkt



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