Technology generated

1. **Varietal development:**
   Four Jute varieties have been released from this Research Station out of which 2 are of capsularis i.e. Baladev (JRC-4444) and KC-1 (Jayadev); and 2 are of olitorius i.e. Mahadev (TJ-40) and Rebati (KOM-62). Besides, 3 capsularis varieties (KJC-7, KJC-9 and KJC-10) are in Advanced Varietal Trial and expected to be released shortly.

2. Varieties identified and recommended for the State:
   - Olitorius – JRO-524, KOM-62, S-19, JRO-7835 and JRO-8432
   - Capsularis – JRC-7447, KC-1, JRC-698 and JRC-212

3. Sowing of the crop in 1st fortnight of April yielded 15-20% higher fibre over 2nd fortnight of April sowing.

4. Application of Quizalfop ethyl @ 50 g a.i./ha at 21 DAE along with adjuvant effectively controlled the dominant grassy weeds. This herbicide + one hand weeding reduced the cost of cultivation by Rs.2400/ha with a net profit of Rs. 8,500/ha.

5. Two sprays of urea (2%) at 45-60 days at 10 days interval recorded good yield in dry years.

6. Application of 80-40-40 kg N, P₂O₅ and K₂O/ha to capsularis and 60-30-30 kg N, P₂O₅ and K₂O/ha to olitorius is superior in producing Jute fibre.

7. Cropping system recommended.

8) **IPM module** developed at J.R.S., Kendrapara for controlling most of the insect pests of Jute is hand weeding + seed treatment with Trichoderma viride @ 10 g/kg of seed along with spraying of neem oil @ 4 ml/litre of water.

9. Two sprayings of endosulfan/ monocrotophos @ 2 ml/litre of water at 15 days interval when the insect pest infestation load exceeds 10% could effectively control the major insect pests of Jute.

10. Seed treatment with carbendazim @ 2 g/kg of seed and spraying of the same fungicide @ 1.5 g/litre of water could control major diseases of Jute.

11. JRO-66, JRO-8432, JRO-878, JRO-7835, JRO-524 and S-19 were found to be moderately resistant to the root knot nematode of Jute.

Technology adopted and benefits to the farmers of State

1. **Popular Variety:** Olitorius - JRO – 524 (95%) and KOM-62 (5%)

   Capsularis - J R C - 4 4 4 4 (80%)
2. About 80 per cent of Jute farmers are now applying Quizalfop ethyl @ 50 a.i./ha at 21 days crop stage to control the grassy weeds and thereby reducing their cost of cultivation by Rs. 2400/ha.

3. Most of the farmers are now sowing the crop in April to avoid pre-mature flowering and also to fit into a suitable cropping system.

4. About 40-50 per cent of the farmers are applying the recommended dose of fertilizer.

5. In dry years, about 40% of the farmers are now spraying 2% urea.

6. The cropping system of Jute-groundnut and Jute-blackgram in rainfed area and Jute-rice-greengram and Jute-rice-blackgram in command area are popularly adopted by the farmers.

7. Seed treatment of resistant variety JRO-524 with carbendazim @ 2 g/kg of seed is now a common practice.

8. Two spraying of endosulfan @ 2 ml/litre of water at 15 days interval are now being adopted by the farmers.

9. The average fibre productivity of the State has been increased about 500 kg/ha (2007-08) over the productivity of 1980-81 due to new technology developed through research and subsequently adopted by the farmers.

10. Enhancement of fibre quality by 1–2 grades has been achieved by improved package of practices.

11. The Scientists are actively involved in imparting training on Jute through Farmers Field School and Jute Technology Mission by which many farmers are trained about the new technology.

12. More than 500 farmers are actively involved in demonstration of new technology generated through Front Line Demonstrations and Adaptive trials.

Thrust Areas of Research.

1. Broadening the genetic base through direct exploration in centre of origin and pre-breeding for fibre quality improvement and stress tolerance.

2. Basic and strategic research on genomic in Jute for augmenting productivity and improving quality of fibres and imparting resistance to biotic and abiotic stress.

3. Fine tuning production technology to address non-uniform productivity and reduction in cost of cultivation through cost effective weed management and fibre extraction-cum-retting methods.

4. Technology assessment and refinement in farming system mode.

5. Refinement of retting process vis-à-vis mechanized fibre extraction for textile worthiness.

---

N. Ranasingh, Asst. Pathologist, T.Samal, Assistant Entomologist, P.N. Jagadev, Breeder and R.K.Paikray, Professor, Agronomy are working at Jute Research Station, Kendrapara.