

# Yield Improvement of Jute and Securing Protein Security of Jute Growers using Pulse Waste

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**Abstract**—Jute is a major cash crop grown in 8 lakh ha by small and marginal farmers of Eastern and Northeastern part of India. Around 80% of total jute is grown in upland condition where this crop faces water stress during early establishment phase leading to poor fibre yield. Thus, farm income of jute growers are usually insecure and also threatens their livelihood. ICAR-CRIJAF, Barrackpore has developed agronomic interventions to mitigate drought like situation. During 2010-13, field experiment was laid out at farmer's field in Murshidabad and Nadia districts to show the advantage of growing moong (green gram) before sowing of jute crop as catch crop. Moong was sown in mid January-mid February and harvested after 60-65 days followed by usual sowing of jute in the month of mid March-mid April. Jute growers could harvest 5-6 q/ha pulse as well as pulse waste as mulch material @ 2 ton/ha. Pulse waste helped in conservation of soil moisture and maintained proper soil temperature. Jute growers could harvest 19.96% and 14.58% more fibre yield over farmer's practice (25.60-26.13 q/ha) in Murshidabad and Nadia districts respectively. Additional yield of pulse ensured nutritional security of the family members of jute growers. It also serves as an insurance crop against crop failure (jute) due to excessive drought or flood. Thus, it ensures stability in jute production and income because of land use diversification, over space and time and renders effective utilization of pulse residue.

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