Crop Production: 2

- **Thematic area: Crop Production**
- **Problem definition/Name of OFT: :** Improvement of Nitrogen use efficiency in rice.

1.	Title of On farm Trial (OFT)	Improvement of Nitrogen use efficiency in rice.
2.	Problem diagnosed	Excessive use of chemical fertilizer and Spiraling price of urea leads to increase in cost of cultivation
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	• Technological Options: Technology Details • Farmer Practice: RDF (100:40:20) Kg/ha • Technological Option 1:50% of RDN & 100% PK + nano urea • @4ml/lt. water (Single spray at pre flowering stage). • Technological Option 2: 50% of RDN & 100% PK + 2 sprays of • Nano Urea at (25 to 30 days) and (60-65 days) @ 4 ml/lt water.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Ranchi and Dr RPCAU, Pusa, ICAR RCER, Patna)
5.	Production system and thematic area	**Crop Production**
6.	Performance of the Technology with performance indicators	Plot size (10x10 m2)/ in each tech.option, soil data before and after (pH, EC, OC, NPK,), Yield data,No. of effective tillers/m2,1000 grain weight, Panicle weight, Grainand Straw yield and Economics.
7.	Final recommendation for micro level situation	On the basis of OFT result **Cauliflower** crop with application of Seed and seedling treatment with Beejaamrit + 3 spray of Jeevaamrit at 21 days interval + application Ghanjeevaamrit @ 1q/ha as basal application and 30 DAS
8.	Constraints identified and feedback for research	Farmers grow of **Cauliflower under Organic cultivation** without chemical fertilizer.
9.	Process of farmers participation and their reaction	Training and field day

Result: Conducted OFT at 07 locations on Improvement of Nitrogen use efficiency in rice. Results of the trials indicates that (T_3) 50% of RDN & 100% PK + 2 sprays of Nano Urea at (25 to 30 days) and (60-65 days) @ 4 ml/lt water higher yield 42.57q/h followed by FP (T_1) RDF (100:40:20)

Kg/ha increases the yield of 41.42q/ha and (T2) 1:50% of RDN & 100% PK + nano urea @4ml/lt. water (Single spray at pre flowering stage) which yield 38.85 q/ha.The highest net return (Rs. 58430/ha) and BC ratio (1.69) was recorded in T3 followed by T1 (1.78) and T2 (1.32).

B. Results with Table and good quality photographs in jpg.

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation(Rs./ha)	Gross return (Rs/ha)	Net return(Rs./ha)	BC ratio
		Proposed	Actual					
Crop Production	PF	2.5	2.5	41.42	32500	90420	57919	1.78
	T1			38.85	36500	84810	48309	1.32
	T2			42.57	34500	92930	58430	1.69

sprays of Nano Urea at (25 to 30 days)

sprays of Nano Urea at (25 to 30 days)

Crop cutting

Data collection