

OFT – 04 (Soil Science)
(Rabi 2023-24)

- **Thematic area:** Organic Cultivation
- **Problem definition/Name of OFT:** Excessive use of fertilizers in cauliflower

1.	Title of On farm Trial (OFT)	Evaluation of organic cultivation package in cauliflower																																								
2.	Problem diagnosed	Excessive use of fertilizer in cauliflower																																								
3.	Details of technologies selected for assessment/refinement	FP - Application of 5 MT FYM/ha. + 32 kg N+23 kg P ₂ O ₅ +15 kg K ₂ O/ha through inorganic source. TO₁ - Application of 5 MT FYM/ha. + 25% of RDF (NPK) through organic source. (RDF 200:150:100) , for 50kg N supply through organic sources 625 kg Karanj cake and 2500 kg Vermicompost. TO₂ - Seed and seedling treatment with Beejamrit + 3 Spray of Jeevamrit at 21 days interval + application Ghanjeevamrit @ 1q./ha as basal application and 30DAS. <ul style="list-style-type: none">• Calculation of RDF on the basis of N only.• 25% RDF with be applied through karanj cake and vermicompost. (N in Karanj cake 4.0% and N in Vermicompost 1.0%)																																								
4.	Source of Technology	RKM KVK Ranchi & National centre on organic farming, Gaziabad.																																								
5.	Production system and thematic area	Maize/Black gram based production system and organic cultivation																																								
6.	Performance of the Technology with performance indicators	Table- Evaluation of organic cultivation package in cauliflower <table><tr><th rowspan="2">Technology option</th><th rowspan="2">No of replication</th><th rowspan="2">Data related problem addressed</th><th colspan="2">Yield component</th><th rowspan="2">Curd yield (q/ha.)</th><th rowspan="2">C.C. (Rs.ha)</th><th rowspan="2">Gross income</th><th rowspan="2">Net Return (Rs/ha)</th><th rowspan="2">B:C</th></tr><tr><th>Curd diameter (cm)</th><th>Curd weight (g)</th></tr><tr><td>FP - Application of 5 MT FYM/ha. + 32 kg N +23 kg P₂O₅ +15 kg K₂O/ha through inorganic source</td><td rowspan="2">10</td><td></td><td>12.46</td><td>0.625</td><td>156.47</td><td>82946</td><td>312940</td><td>229994</td><td>3.77</td></tr><tr><td>TO₁ - Application of 5 MT FYM/ha.+25% of RDF (NPK) through organic source</td><td></td><td>13.27</td><td>0.732</td><td>181.36</td><td>90500</td><td>362720</td><td>272220</td><td>4.01</td></tr></table>										Technology option	No of replication	Data related problem addressed	Yield component		Curd yield (q/ha.)	C.C. (Rs.ha)	Gross income	Net Return (Rs/ha)	B:C	Curd diameter (cm)	Curd weight (g)	FP - Application of 5 MT FYM/ha. + 32 kg N +23 kg P ₂ O ₅ +15 kg K ₂ O/ha through inorganic source	10		12.46	0.625	156.47	82946	312940	229994	3.77	TO₁ - Application of 5 MT FYM/ha.+25% of RDF (NPK) through organic source		13.27	0.732	181.36	90500	362720	272220	4.01
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[illegible]

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					
Organic Cultivation	FP - Application of 5 MT FYM/ha. + 32 kg N +23 kg P ₂ O ₅ +15 kg K ₂ O/ha through inorganic source	0.2	0.2	156.47	82946	312940	229994	3.77
	TO₁ - Application of 5 MT FYM/ha.+25% of RDF (NPK) through organic source	0.2	0.2	181.36	90500	362720	272220	4.01
	TO₂ - Seed and seedling treatment with Beejamrit + 3 Spray of Jeevamrit at 21 days interval + application Ghanjeevamrit @ 1q./ha as basal application and 30DAS	0.2	0.2	133.16	75350	266320	190970	3.53

Balance Sheet

Sampling Time	OC%	pH	Av. N kg/ha	Av. P ₂ O ₅ kg/ha	Av. K ₂ O kg/ha
Before Transplanting	0.59	5.87	295.76	10.05	244.13
After harvesting					
FP	0.58	5.85	307.57	11.56	245.18
T ₁	0.62	5.90	312.58	13.29	250.15
T ₂	0.60	5.88	303..36	12.05	247.53

Activities Photos

