ACHIEVEMENT OF *RABI* (2022-23) (OFTs)

ASSESSMENT OF CHEMICAL WEED MANAGEMENT IN MAIZE

Season – *Rabi*, 2022-23 **No. of beneficiaries –** 7 **Area-** 1 ha

FP	TO_1	TO_2
One hand weeding at 20 DAS	Pre-emergence application of Atrazine @ 1kg a.i/ha at 2nd DAS+1 hand weeding (HW) at 40 DAS	Post-emergence application of Tembotrione 100g/ha + Atrazine 500g/ha at 20 DAS + one hand weeding at 40DAS

Technology option	Dry weight of weeds(g/m2)				Rows /cob	Grains / row	Yield (q/ha)	(%) change in yield	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
	At 30 DAS	At 60 DAS	WCE(%) At 30 DAS	WCE (%) At 60 DAS								
FP	1.85	3.48	74.4	66.7	12.6	26.5	46.51		53500	86967	33467	1.63
TO_1	1.51	2.72	79.1	74.0	14.2	27.8	52.01	11.8	54140	97253	43113	1.80
TO_2	1.25	2.24	82.7	78.6	14.7	29.4	56.98	22.5	55170	106546	51376	1.93
control	7.23	10.46										
CD (0.05)	0.59	1.23	5.1	4.5(S)	2.1	2.03	5.58					

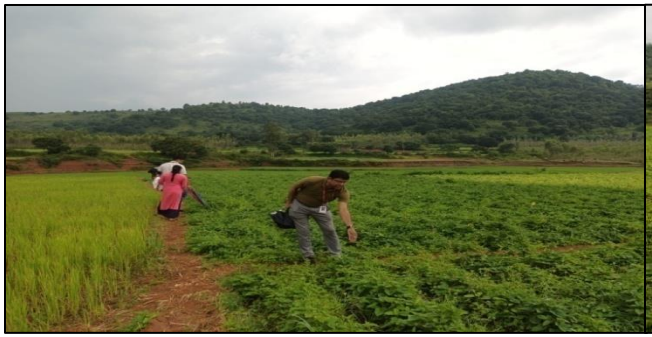
Recomendation: Application of Tembotrione 100g/ha + Atrazine 500g/ha at 20 DAS + one hand weeding at 40 DAS was found superior in comparison to other treatments.

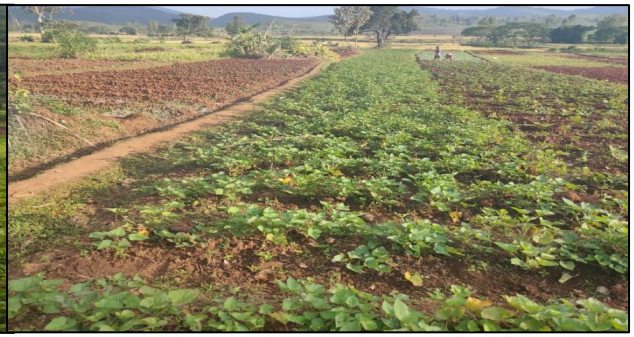
ASSESSMENT OF BIO-FORTIFIED SWEET POTATO VARIETIES FOR NUTRITIONAL SECURITY

Season – *Rabi*, 2022-23 No. of beneficiaries – 7 Area- 0.42ha Village- Gunthaput, Mangaliguda & Lekidiguda

FP	TO_1	TO_2
Kisan (Non-biofortified variety)	**Bhu Sona (OFSP)** High β–carotene (14.0 mg/100gm) content as compared to 2–3mg/100gm β–carotene in popular varieties, tuber yield 19.8 t/ha, dry matter : 27 - 29%, starch : 20%, total sugar : 2 - 2.4 %, 110 days duration	**Bhu Krishna (PFSP)** High anthocyanin (90mg/100gm) , tuber yield - 18 t/ha, dry matter - 24.5 – 25.5%, starch - 19.5%, total sugar: 1.9–2.2% and salinity stress tolerant, 105-100 days

P^H – 5.4. EC – 0.1 ds/m, O.C – 0.3 % (L.) Avail (N – 235 kg/ha, P - 16 kg/ha, K - 220 kg/ha)





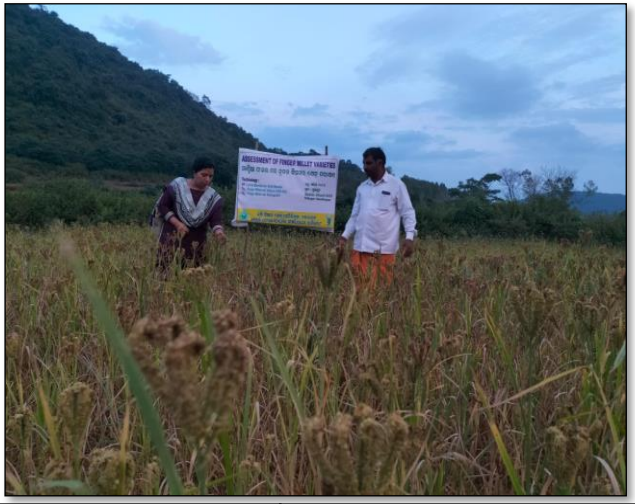
Technology option	Yield attributes				Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
	Vine length at 60 DAP (cm)	Length of tuber (cm)	No. of tuber/plant (No.)	Avg. tuber yield/plant (kg)					
FP	139.65	17.46	2.45	258.95	135.4	36000	1,35,400	99,400	3.76
TO_1	213.5	15.98	2.44	262.7	148.7	38000	1,48,700	1,10,700	3.91
TO_2	198.7	13.85	3.22	252.8	144.9	38000	1,44,900	1,06,900	3.81
CD (0.05)	15.90	2.84	0.35 NS	17.87	9.88				
Recommendation:	The sweet potato variety Bhu-Sona performed well with higher yield potential and higher marketability.								

ACHIEVEMENT (*KHARIF*, 2023) (OFTs)

ASSESSMENT OF FINGER MILLET VARIETIES

Season – *Kharif*, 2023 **No. of beneficiaries –** 7 **Area-** 0.4 ha

FP	TO_1	TO_2
Local Ragi var. Budi Mandia	Finger Millet var. Arjuna, OEB-526	Finger Millet var. Kalinga - 601



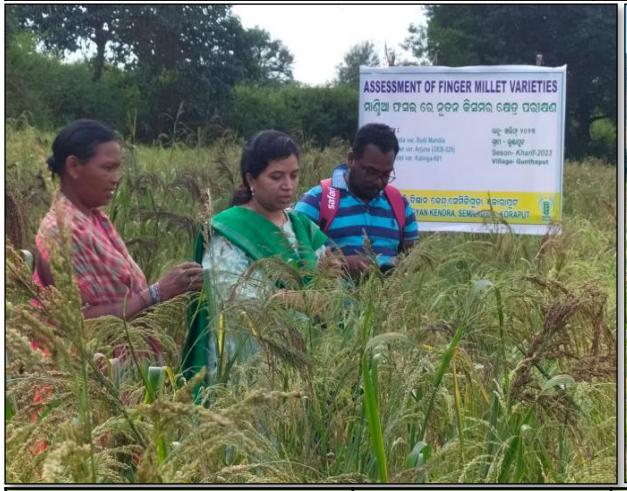
Technology option	Yield attributes		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
	No. of EBT/plant	fingers / Ear head (No.)					
FP	1.6	5.2	11.7	24600	36855	12255	1.50
TO_1	1.8	5.7	13.2	24600	41580	16980	1.69
TO_2	1.9	6.1	13.8	24600	43470	18870	1.77
CD(0.05)	0.24	0.54	1.15				

Recomendation: Kalinga - 601 was found superior in comparison to OEB-526 and Budi mandia as per yield parameter recorded.

ASSESSMENT OF LITTLE MILLET VARIETIES

Season – *Kharif*, 2023 **No. of beneficiaries –** 7 **Area-** 0.4 ha

FP	TO_1	TO_2
Local little millet var. Sana Suan	Little Millet var. OLM 208	Little Millet var. Kalinga suan - 217



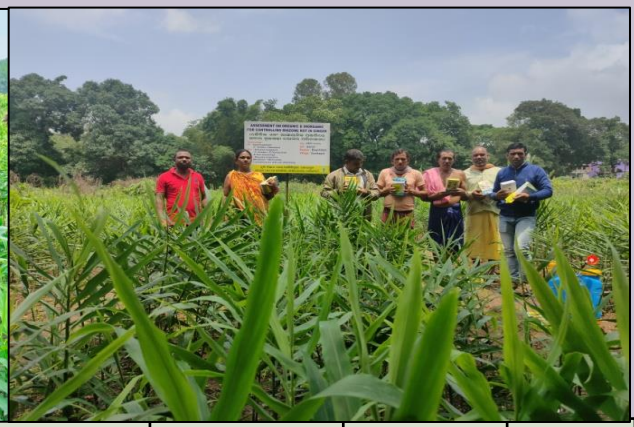
Technology option	No. of EBT/plant	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
FP	3.2	9.6	23100	43710	20610	1.89
TO_1	3.5	10.5	23100	47940	24840	2.08
TO_2	4.1	12.3	23100	53580	30480	2.32
CD(0.05)	0.36	0.68				

Recomendation : Kalinga suan – 217 was found superior in comparison to OLM - 208 and sana suan as per yield parameter recorded. .

ASSESSMENT ON ORGANIC & INORGANIC FOR CONTROLLING RHIZOME ROT IN GINGER

Season – *Kharif*, 2023 **No. of beneficiaries** – 7 **Area-** 0.42 ha **Village**: Gunthaput

FP	TO_1	TO_2
Rhizome treatment with Metalaxyl + Mancozeb @ 3 g/ l of water	Rhizome treatment with *T. viride* @10 ml/l and *Pseudomonas fluorescens* @10 ml/l along with soil drenching at 45 DAP and 90 DAP	Rhizome treatment with Metalaxyl + Mancozeb @ 0.2% and Streptocyclin @ 0.1% along with soil drenching at 45 DAP and 90 DAP



Technology Option	Plant height (cm)	No. of tillers/ plant	Percentage disease incidence (PDI) (%)	Rhizome Yield (q /ha)	Gross cost (Rs.)	Gross return (Rs.)	Net return (Rs.)	B:C ratio
FP	63.8	16.1	14.1					
TO_1	70.5	22.2	8.6					
TO_2	72.2	25.3	8.2					
CD (0.05)	2.6	1.3	1.7					

Recomendation: Rhizome rot of gingr significantly decrease by application of organic and inorganic resulting in more yield

ASSESSMENT OF EFFECTIVENESS OF DIFFERENT EXTENSION METHODS TO ACCESS INFORMATION ON RICE PRODUCTION

Season – *khariff,* 2023 **No. of beneficiaries – 30** **Village**- Hanjaraguda, Muliaput, Mangaliguda

FP	TO_1	TO_2
Farmers geeting information from peer group, inputdealers extension functionaries, mass media and KMA	Delivering need based technology through video lecture followed by focus group discussion along with traditional existing extension methods would provide need based information, skill and objective clarification through FGD, along with traditional existing mechanism of transfer of technology.	Providing timely & need based infformation to farmers regarding situation specific rice varities, crop management, farm machinaries, nutrient and pest management, post harvest management etc. through rice Xpert App along with traditional existing mechanism of transfer of technology.

Observation parameter (farmers' opinion)	percentage (%)	FP	TO_1	TO_2
Timely availability/delivery of information	%	13.3	26.6	60.3
Suitability of technology	%	20.0	36.6	56.7
Change in knowledge	%	16.6	30.0	53.3
User friendly extension method	%	23.3	46.6	73.4
performance & recommendation	FP + using of "rice Xpert"(TO_2) APP performed better than >TO_1 > FP			

Recomendation: Rice Xpert App is very much useful as a diognostic tool for their rice cultivation