

## OFT-4

1.	Title of on-farm trials	<b>Effect of different doses of plant growth substances on the Fruit yield of Brinjal during Kharif season.</b>
2.	Problem diagnosed	Low yield of Brinjal because of different growth substances deficiency
3.	Details of technologies selected for assessment/refinement	<b>Farmers practice:</b> Farm Yard Manure 5 ton/ ha <b>Technology Option-I:</b> Spraying of Triacantanol0.05% @ 2ml/lit, at 40 &65 DAT <b>Technology Option-II::</b> Spraying of <b>3.5% Alfa NAA(sodium Salt)</b> @ 2.5 ml/lit, 40and 65 DAT
4.	Source of technology	WBSAU
5.	Production system and Thematic area	Horticulture based production system through nutrient management
6.	Performance of the technology with performance indicators	As the plants were sprayed with different growth substances, there was better vegetative growth with more female flowers in the field thus resulting better yield. Among them Tech. Option-2 proves best.
7.	Final recommendation for micro level situation	Yet to come as the OFT just completed 1 <sup>st</sup> year.
8.	Constraints identified and feedback for research	No constraints so far.
9.	Process of farmers participation and their reaction	Farmers participated in collaborative mode.

**Table: Effect of different doses of plant growth substances on the Fruit yield of Brinjal:**

Technology option	No. of trials	Data related to problem addressed			Yield components		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net Return (Rs / ha)	BC Ratio
		Disease incidence (%)	*	**	No. of fruits/plant	No. of Branches/plant					
<b>Farmers' Practice:</b> Application of FYM (farm yard manure) @ 5t/ha	7	35			27	16	250	120773	250000	129227	2.06
<b>Technology Option -1:</b> Spraying of tricontanole 0.05% @ 2ml/lt at 40 and 65 DAS.		11			31	21	280	127854	280000	152146	2.18
<b>Technology Option -2:</b> Spraying of Alfa-NAA 3.5% (sodium salt) @ 5ml/lt at 40 and 65 DAS.		9			36	25	340	148470	340000	191530	2.29
SEm+		0.9			0.7	0.5	4.3	-	-	-	-
CD(P=0.05)		2.0			1.7	1.1	9.4	-	-	-	-

### B. 3. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

**Thematic Area:** Nutrient management

**Problem Definition:** Inadequate profit from brinjal due to low yield

**Technology Assessed:** Efficacy of different growth substances

KVK took up on farm trial on performance of different growth substances under maize-vegetable based production system. As the crop was sprayed with growth substance in different interval, the photo synthetic activities of the crop was better with healthy root systems leading better vegetative growth . The growth regulator particularly alfa-NAA induces more female flowers as well thus resulting better yield. Among them **Tech. Option-2 proves best with 21 % increase** in yield over farmers' practice.