

कृषि विज्ञान केन्द्र, नगीना (बिजनौर)

प्रक्षेत्र परीक्षण

OFT-1

Crop/Enterprises	Mango
Title	Canopy management of mid-age mango orchards (>25 years) through centre opening with management of nutrients, disease & insect
Thematic area	Resource conservation
Major Problems	Low productivity of mango varieties Dashaheeri and Langra due to highly dense mango orchards and heavy infestations of wilt & Mango mealy bug
Major Cause	<ul style="list-style-type: none">• Low light interception• Low photosynthesis• Highly dense tall trees with intervening branches• Use of imbalance dose of nutrients• Incidence of Mango mealy bug and wilt
Name of interventions	T1-Farmers practice-No pruning + Application of 2 kg DAP in the month of October T2-Centre opening + COC-2kg + FYM, N, P, K, B, Zn and CuSO ₄ @50 kg, 1000, 750, 750, 250, 250 and 250 gm/tree/year & management of Mango mealy bug & wilt
No. of farmers	05
Area	05 plant/location=25 plants
Cost of input	Rs 6000/-
Source of Technology	ICAR-CISH, Lucknow
Critical Input	COC, Boron, Zinc and CuSO ₄
Observation to be recorded	<ul style="list-style-type: none">• Days to flowering after pruning• Days to fruit set after pruning• Size of fruit• Fruit yield• Incidence of disease & insect

OFT-2

Crop/Enterprises	Sugarcane
Title	Assessment of IPM module for the management of shoot borer, top borer in sugarcane (Variety CoS - 13235)
Thematic area	Integrated Pest Management
Major Problems	Loss in cane yield (10-24%) of the crop leading to reduction in farmer's income
Major Cause	<ul style="list-style-type: none"> • Low quality cane production and reduction in crop productivity due to heavy infestation of shoot borer, top borer. • Reduction in height and weight of cane due to such common borer infestation • High residual effect in bi-products of sugarcane due to non-judicious use of pesticides to control borer • Increase in infestation rate due to excess use of nitrogenous fertilizer.
Name of interventions	<p>T1- Farmers practice- Furadan 3G @ 30 kg/ha and Chlorantranilprole 18.5 SC @ 375 ml/ha</p> <p>T2-</p> <ul style="list-style-type: none"> • Preference to the single bud method of sugarcane cultivation. • For the ease of Seed treatment: Chlorpyriphos 20 EC @40 ml and Carbendazim @50g /10 lit water • Soil application: Fertera 0.4 G @22.5 kg/ha at planting and drenching of Chlorantranilprole 18.5 SC @375 ml/ha in 700 lit. of water at 60 DAP • Installation of Trichocard @7.5 card/ha (@50000 parasitoid/ha) at 45,60,75 (at two weeks), 150 and 180 DAP (5 times during peak of egg laying) • Pheromone traps @ 27/ha at 45 DAP (lure change at an interval of 45 days) 10 meter distance from boundary & 20 meter distance between 2 trap should be maintain.
No. of farmers	05
Area	2.0 hectare (0.4×5= 2.0)
Cost of IPM modules	Rs. 9038.00/acre (Total Rs. 45190/- for 2.0 ha area)
Source of Technology	ICAR-IISR, Lucknow
Critical Input	Chloropyriphos 20 EC, Carbendazim 50WP, Fertera 0.4G, Chlorentniliprole 18.5% SC, Trichocard and Pheromone trap with lure
Observation to be recorded	<ul style="list-style-type: none"> • Germination percent & No of tillers/5*2 m² • Height (m) of healthy and infected cane. • Cane girth (cm) of healthy and infected (5 cane each insect). • Infestation % of shoot borer & top borer. • Weight (g) of healthy and infested cane • Infestation of other insect-pest • Yield (t/ha), B:C ratio & Meteorological data for crop period

OFT-3

Title	Weed Management in transplanted Rice through chemical method.
Problem diagnosed	Rice is one of the major crops in the district during <i>Kharif</i> season covering more than 0.55 lakh ha area. Heavy infestation of weeds (<i>Echinochloa colona</i> , <i>Echinochloa crusgalli</i> , <i>Fimbristylis milliacea</i> , <i>Cyprus rotendus</i> , <i>Cyprus difformis</i> , <i>Marsilea quadrifolia</i> etc.) causes competition with main crop and reduces the crop yield drastically.
Micro farming situation	Irrigated condition with Medium land under Rice-Wheat cropping system.
Thematic area	IWM (Variety PB-1885)
Details of technology identified for solution	T1: Bis-pyribac Sodium 10% @ 200-250 ml/ha T2: Trifamone 20%+Ethoxysulfuron10%WG @ 90g/ha. T3: Bispyribac Sodium 38% + Chlorimuron Ethyl 2.5% + Metsulfuron Methyl 2.5%(w/w) WG @ 100g/ha
Source of Technology	ICAR-DWR, Jabalpur
No. of farmers	05
Area	(10 x 800) = 8000 sqm
Critical inputs	Weedicide
Total Cost	Rs. 4000.00/- approx.
Performance Indicator	
Technical	<ol style="list-style-type: none"> 1. Weed density at 30 and 45 DAT (No. of weeds/m²). 2. Number of different weeds species (Number/m²). 3. Total weed dry weight (g/m²) 4. Major weed flora. 5. Number of effective tillers per plant (Number/m²).
Economical	<ol style="list-style-type: none"> 1. Grain Yield (q/ha). 2. Straw Yield (q/ha). 3. Cost of Cultivation (Rs./ha) 4. Net Return (Rs./ha) & Cost Benefit Ratio (C:B Ratio)
Social	<ol style="list-style-type: none"> 1. Adoption Rate. 2. Suitability of Technology. 3. Feedback of farmers

OFT-4

Crop/Enterprises	Sugarcane (Zaid-2024)
Problem diagnosed	Low yield of sugarcane
Major cause/Title	Imbalance use of fertilizers testing without soil moisture
Thematic Area	ICM (Variety CoS - 13235)
Details of technologies selected for assessment	T1: Farmer's practice (flood irrigation + 400K urea + 130 kg DAP + 0 kg potash per kg) T2: Use balanced fertilizer as per soil testing value and irrigate on the basis of soil moisture indicator
No. of farmers	05
Replications	03 (Area – 0.4 * 3 = 1.2 ha)
Critical inputs	<ul style="list-style-type: none"> • SMI (Soil Moisture Indicator) • Balanced fertilizer NPK
Source of technology	ICAR-IARI, New Delhi
Observations to be recorded	<ul style="list-style-type: none"> • Pest build up (insect, disease infestation and weed population per m) • No. of irrigation and fertilizer saving • Cost of cultivation • Yield q/ha • B:C ratio

OFT-5

Crop/Enterprises	Wheat (Rabi 2025-26)
Problem diagnosed	Low production in late sown wheat under sugarcane-wheat system
Major cause	Sowing of traditional variety in late sown condition through broadcasting method
Thematic Area	ICM (Variety HD-3298)
Details of technologies selected for assessment	T1: Farmer's practice – Use of old variety (DBW-173) and application of 100:60:0 kg NPK T2: Line sowing of wheat variety HD-3298 + application of recommendation dose of fertilizer @ 80:60:40 and Zinc (on the basis of soil testing)
Source of technology	ICAR-IARI, New Delhi
No. of farmers	05
Critical inputs	Seed + balanced fertilizer

Plot size & sowing time	800 sq. m per farmer & between 15-30 Dec.
Observations to be recorded	<ul style="list-style-type: none"> • Seed rate • Plant population per m² at 20-25 days & at harvesting • No. of effective tillers (60 DAS) • Days taken to maturity • Yield 10 m² area (randomly from 4-5 places) per q per ha • B:C ratio

फसल	शीर्षक एवं उपचार	प्रदर्शनों की संख्या	क्षेत्रफल (है०)
जायद 2026 गन्ना	गन्ना की रोगरोधी एवं अधिक उपज क्षमता वाली प्रजातियों का मूल्यांकन टी-1 :को 0238 टी-2 :कोशा 19231	5	1.0
खरीफ 2026 धान	सुगन्धित धान की उन्नत प्रजातियों का मूल्यांकन टी1: पूसा बासमती 1 टी2:पूसा बासमती 1882	5	1.0
रबी 2026-27 गेहूँ	समय से वुवाई की दशा में गेहूँ की रोगरोधी एवं अधिक उपज क्षमता वाली प्रजातियों का मूल्यांकन टी-1 :डी0वी0डब्लू 17 टी-2 :डी0वी0डब्लू 372 / पी0बी0डब्लू0 872	5	1.0