

Title of OFT	Problem diagnose	Technology details	Recommendations
Assessment of Planting Pattern on Tuber Yield of Potato Cultivation	Poor drainage causes water logging due to flat bed planting. Improper drainage in flat bed causes brown rot and poor tuberization in potato.	T1: Farmers Practices T2 :Ridge & Furrow Spacing 30 cm X 45 cm T3 :Ridge & Furrow Spacing 30 cm X 60 cm	Planting potatoes in plain wide beds may improve water and nitrogen use efficiency due to a reduction in the amount of infiltration in the furrow, beyond the extent of much of the potato root zone.
Assessment of Planting Dates on Yield and Economics of Potato under Ridge & Furrow System	Time of planting is uncertain and aberration in rains causes stresses and Late Blight & Bacterial Wilt in potato	T1: Farmers Practices T2: RFS, Planting Date-15 June following Improved Package of Practices T3: RFS, Planting Date-25 June following Improved Package of Practices	Planting of potato could be done during June third week (June 25 th) with 45 cm row spacing for obtaining higher tuber yield and net returns.
Assessment of Bio- Efficacy of Oxyfluorfen control Of Weeds In Onion	Due to their slow growth (shallow roots and thin canopy), onion seedlings are poor competitors with weeds. In addition, their cylindrical upright leaves do not shade the soil to block weed growth.	T1: Farmers Practices T2:Oxyfluorfen + Drip Irrigation + improved Variety T3: Hand Weeding+ Drip irrigation + Improved Variety	The pre-emergence application of oxyfluorfen (23.5% EC) at 200 g·ha ⁻¹ can keep the weed density and dry weight reasonably at lower level and enhance the productivity of kharif onion resulting in higher economic returns.
Varietal Assessment on Improved Package of practices of Garlic + Drip Irrigation	In garlic, flood irrigation is widely practiced, which results in inefficient use of irrigation water due to losses in deep percolation, distribution and evaporation	T1: Farmers Practices T2 :Flood Irrigation +RDF + Improved Variety T3 :Drip Irrigation +RDF+ Improved Variety	Application of NPK 50:50:50 kg/ha basal and 50 kg N through seven splits for garlic through drip irrigation was adjudged as best treatment in terms

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Assessment of Improved Package of practices Beetroot + Drip irrigation	Lack of quality seed and lack of knowledge about recommended package of practices of Beetroot	T1: Farmers Practices T2 :Drip+ Improved Package of practices Beetroot	of yield and cost: benefit ratio. It could be recommended that drip irrigation was an effective method in sugar beet production for more root and sugar yield and also saving water.
Assessment of Improved Package of practices Cucurbits + Drip irrigation	Low nitrogen use efficiency in conventional method of irrigation is also a major reason for low productivity of crops.	T1: Farmers Practices T2 :Drip irrigation +RDF + Improved Varieties T3: Flood Irrigation +RDF+ Improved varieties	Application of 80 percent irrigation through drip and 80% recommended NPK through fertigation has been found best for cucumber production.
Assessment of Yield and Economics of Potato under Ridge & Furrow System	Indiscriminate use of water through conventional irrigation system with only 60 per cent application efficiency is causing reduction in tuber yield.	T1: Farmers Practices T2: RFS + Drip irrigation + RDF T3: RFS + Drip irrigation	Drip irrigation along with RFS has the potential to increases tuber yield of potato. Therefore, it can be recommended as a useful irrigation water application method for potato crops grown in raised beds with furrows in the areas where irrigation water and water supplies are limited for sustainable potato production.
Assessment of acidifiers in broilers	Lack of knowledge of beneficial effect of acidifier	T1: No use of acidifier T2: Use of acidifier reduce microbial	The use of acidifier mixtures was improve nutrient

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		infection, mortality and increase Body weight	digestibility, lower intestinal pH, reduce populations of pathogenic bacteria which significant affect the final live weight, feed intake, weight gain and feed conversion rate of broiler chickens
Assessment of Sowing technique for production of Pigeon pea	Sowing is done in flat bed by broadcasting which is prone to water logging resulting in plant mortality and higher incidence of fusarium wilt and phytophthora blight	T1: Farmers Practices T2: Sowing by Seed Cum Fertilizer Drill T3: Sowing by Zero Till Drill	Planting operation with tractor operated seed cum fertilizer drill was found to be better compared to traditional broadcasting method. The mechanized method of sowing resulted in 50% more depth of sowing compared to broadcasting method.
Assessment of Sowing technique for production of Linseed	Sowing of seed by broadcasting, inadequate plant population and no Use of improved farm Machinery	T1: Farmers Practices T2: Sowing by Seed Cum Fertilizer Drill T3: Sowing by Zero Till Drill	The tractor operated seed cum fertilizer drill/zero seed drill was found to be better compared to traditional broadcasting method and hence recommended for line sowing of Linseed.
Assessment of Sowing technique for production of	Sowing of mustard is generally performed manually by broadcasting of seeds, and that not	T1: Farmers Practices T2: Sowing by Seed Cum Fertilizer Drill	Line sowing using seed drill helps to maintain uniform plant

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Mustard	only consume higher seed rate but also cause uneven distribution of seed at improper depth and moisture, poor germination, unhealthy plants and ultimately lower the yield.	T3: Sowing by Zero Till Drill	population, seeding depth and germination, lesser seed rate, proper fertilizer placement and better intercultural operations.
Assessment of Yield maximization in Mustard	The productivity is quite lower mainly due to suboptimal application of fertilizers and lack of improved variety.	T1: Farmers Practices T2: Use of NPK @ 80:60:40 kg/ha + improved variety with line sowing by seed drill T3: Use of NPK @ 80:60:40 kg/ha and improved variety with broadcast method	Application of NPK @ 80:60:40 kg/ha, planting of improved variety with line sowing by seed drill is beneficial.
Assessment of Yield maximization in Linseed	Low productivity of linseed may be ascribed to many reasons, but inadequate and imbalanced fertilization are the major factor	T1: Farmers Practices T2: 30kg seed/ha +40:30:10NPK/ha with 30 c.m. Row spacing T3: T2+Organic fertilizer (FYM) @ 1ton /ha as furrow application.	Seed rate 30kg/ha +40:30:10NPK/ha with 30 c.m. Row spacing +Organic manur (FYM) @ 0.5ton /ha as furrow application is recommended for linseed cultivation.
Assessment of Use of toxin binder in Broiler	Most of the cereal-based ingredients used in poultry feed are contaminated with different type of toxin which have deleterious effect on health and production of birds	T1: No use of toxin blinder T2: Use of Toxin Binder in the Performance of broiler T3: Proper mixing toxin binder @ 1.5 Kg /T of feed	The addition of the toxin binders to poultry ration reduced the adverse effects of toxin and could be helpful as a solution to the aflatoxicosis problem in young broiler chicks.
Enhancement of growth parameters and	It is extremely difficult to control soil-borne fungi using conventional	T1: No use of bio-control agent for wilt disease	<i>Trichoderma viride</i> is the cost effective bio

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yield components in brinjal using antagonism of trichoderma spp. against fusarium wilt disease	method such as the use of synthetic fungicides. Since their spores are able to survive for many years in the soil, biological control strategies for this pathogen should, therefore, an eco-friendly way instead of using chemical fungicides	T2: Seed treatment @ 6-10 gm /kg & Nursery treatment @ 10-25 gm /100 m2 in nursery bed T3: Seed treatment @ 6-10 gm /kg & Nursery treatment @ 10-25 gm /100 m2 in nursery bed, Foliar Application @ 10 kg/acre	control agents as manifested by the reduction in both disease severity and increase plant growth parameters and fruit yield components.
Assessment of transplanting dates on vegetative growth & bulb yield of kharif onion	Kharif Onion is not a tradition. Thus, determined optimum transplanting dates have a vital role in maximizing growth, bulb yield and quality of onion bulb.	T1: Farmers Practices T2: Transplanting Time with Recommended Spacing (R-15XP-10) T3: Transplanting Time with Recommended Spacing (R-15XP-10)	To obtain higher yield of <i>kharif</i> onion should be planted during mid of August
Varietal assessment of triple disease resistant variety of tomato Arka Rakshak (TOLCV, BW and Early Blight)	Tomato Leaf Curl Disease, bacterial wilt and early blight are the major production constraints in tomato causing considerable yield losses	T1: Farmers Practices T2: F1 Hybrid Arka Rakshak following full Package of Practices T3: F1 Hybrid Arka Rakshak + Stacking following full Package of Practices	Adoption of multiple disease resistant tomato variety / F1 hybrid is the most practical way to combat Tomato Leaf Curl Disease, bacterial wilt and early blight as no chemical application can effectively control them.
Effect of RDF along with boron application in cauliflower	Boron is also an essential plant micro nutrient and deficiency of boron causes abnormal cell division at the points which especially lead to disorder like dead heart rot and hollow stem in cauliflower in acidic soils	T1: Farmers Practices T2: NPK @ 120:80:60 kg/ha along with Borax @ 15 Kg/ha as soil application T2: NPK @ 120:80:60 kg/ha along with Borax @	It can be recommended that 18 kg/ha boron with NPK @ 120:80:60 kg/ha is optimum for cauliflower production

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		18 Kg/ha as soil application	
Assessment of Direct seeding of Paddy by Seed cum Fertilizer drill	No Use of improved Machinery for field preparation/sowing and package of practices	T1: Farmers Practices T2: Summer deep ploughing + cultivator + rotavator. T3: Direct seeding of paddy by seed cum fertilizer drill. T4: Random Transplanting	Direct Seeding Rice Technology will help in reducing the labour shortage, increases the yield , reduces the crop duration, drudgery and cost of cultivation.
Assessment on sowing technique for production of field pea	No Use of improved farm Machinery for sowing and package of practices for field pea	T1:Direct seeding by broadcasting method T2 :Sowing by seed cum fertilizer drill. T3: Sowing by Zero till drill	Use of zero-till drill for sowing of field pea is advantageous in terms of 50-60% saving in time and 40-50% saving in cost of sowing as compared to the conventional practice of seedbed.
Assessment on Seed cum Fertilizer drill/Zero till drill for sowing of Linseed	Sowing of seed by broadcasting and no use of improved farm Machinery	T1: Broadcasting T2: Sowing by seed cum fertilizer drill. T3 : Sowing by Zero seed drill	The tractor operated seed cum fertilizer drill/zero seed drill was found to be better compared to traditional broadcasting method and hence recommended for line sowing of Linseed.
Assessment of Integrated Nutrient Management in Paddy	Low yield of paddy due to imbalanced/indiscriminate use of nutrients	T1 : Soil Test Based fertilizer recommendation for target yield approach T2: Recommended Dose of Fertilizer	Application of soil-test-based fertilizer doses to a crop would help to realize greater response ratio and greater benefit-

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		(N:P:K=100:60:40) T3: Farmer Practice (N:P:K=60:40:20)	cost ratio, as the nutrients are applied in proportion to the magnitude of the deficiency of a particular nutrient in rice.
Assessment of Integrated Nutrient Management in Wheat	Wheat is nutrient exhaustive and had resulted in decline of soil organic carbon and deteriorating soil health in general for sustainability of the system well as the overall soil health.	T1 : Soil Test Based fertilizer recommendation for target yield approach T2 : Recommended Dose of Fertilizer (N:P:K=100:60:40) T3 : Farmer Practice (60:40:20)	Production efficiency of wheat can be increased with Soil Test Based fertilizer recommendation for target yield approach
Assessment of Yield maximization in Mustard	Low yield of mustard due to imbalanced and inadequate use of fertilizers	T1: Soil Test Based fertilizer recommendation for target yield approach T2: Recommended Dose of Fertilizer (N:P:K=100:80:40) T3: Farmer Practice (60:40:20)	Soil test based fertilizer recommendation may be a useful tool for balanced fertilization of nutrients in mustard.
Assessment of chemical herbicide for Weed control in transplanted Rice	Weed competition is one of the most important factors in limiting the yield of rice. Weeds having faster growth rate, accumulate large amount of biomass in a short period, which interferes with the growth of rice plants and ultimately affects the yield of rice crop.	T1 - Farmers are not using chemical herbicide only One hand weeding at 40-45 DAT T2: Application of Pre emergence Herbicide Pretilachlor + Pyrazosulfuron Ethy l@ 615 g ai/ha T3: Application of Pre emergence Herbicide Bensulfuron + Pretilachlor 660g ai/ha	Application of Pre emergence Herbicide Pretilachlor + Pyrazosulfuron Ethy @ 615 g ai/ha is recommended for weed control in paddy.
Assessment of	Improper utilization of	T1: Maize as sole	Maize-legume

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Maize + Legume intercropping	resources in cultivation of sole crop Maize. Exhausting of nutrient in cultivation of heavy feeder crop Maize.	crop T2: Pigeon Pea as sole crop T3: Maize + Pigeonpea (1:1)	intercropping is recommended under low soil fertility conditions, presumably due to reduced competition for light and possibly enhanced benefits from legumes' ability to fix N ₂ .
Assessment of Yield maximization in Mustard	Inadequate use of organic manure & fertilizers and total dependence on inorganic fertilizers have not only identified as the critical constraints withholding mustard production but also adversely affecting the sustainability of agricultural crops.	T1-Imbalance use of fertilizer @65:40, NP kg/ha 2- local seed with broad cast method T2-Use of NPK @ 80:60:40 kg/ha + improved variety with line sowing by seed drill T 3- Use of NPK @ 80:60:40 kg/ha + improved variety with broadcasting.	Mustard fertilized with NPK @ 80:60:40 kg/ha is to be recommended for mustard production. Use of improved variety with line sowing by seed drill is beneficial.
Integrated Disease Management In Chick Pea	Chickpea diseases may cause yield losses of up to 100% depending on time of infection. Dry root rot and collar rot are emerging as a major threat to chickpea production due to drastic climate change	T1: Farmers Practices T2: Seed treatment with Carbendazim 2gm/kg seed T3: Seed treatment with Carbendazim 2gm/kg seed and Soil application of Trichoderma viride @ 10-12 kg/ha with FYM	Seed treatment with Carbendazim @ 2gm/kg seed and soil application of <i>Trichoderma viride</i> @ 10-12 kg/ha with FYM is recommended for controlling chickpea wilt, dry root rot and collar rot
Performance of Albendazole for control mortality due to parasitic infection in goat kid	Parasite have a great impact on the health condition and growth performance of kids.	T1: Use of 5 ml distil water T2: First dose :Albendazole syrup @ 2-3 ml/10kg of body weight after one week of birth Second and third	This study will inform that albendazole have better effectiveness to the gastrointestinal nematodes.

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		dose: 15 days interval	
Performance of two improved dual purpose color bird of Poultry in growth of semi intensive poultry system .	Low income in backyard poultry	T1: Rearing non descript poultry birds T2: Improved dual purpose color birds of Poultry	Improved dual purpose coloured bird has high body weight gain, higher egg production as compared to local non descript breed.
Assessment of use of oral calcium supplementation in cattle	Hypocalcaemia is a prevalent metabolic problem in dairy cattle . which affect the milk production and reproduction performance	T1: No use of calcium T2: Use of oral calcium supplementation in cattle	Supplementation with oral Ca reduced the incidence and daily prevalence of hypocalcaemia and reproduction abnormality (dystopia, retention of placenta) and increase milk production.
Assessment of Green grass as year round fodder production for milch animal	Non availability of green fodder all the year for good production	T1-Farmer's practise T2-Use of green grass as green fodder mixed with dry fodder improves palatability and digestion.	Use of Green fodder all the year round improves milk production and health of dairy animals.
Assessment of bispyribac sodium for weed management in transplanted paddy	Pre-emergence herbicides such as pretilachlor, butachlor, oxadiargyl and anilofos are being frequently used for the effective management of weeds in transplanted rice but the window of their application is very narrow (1-3 days after transplanting).	T1: Farmers are not using herbicide for weed management T2: Use of bispyribac sodium 10 SC – 200 gm/ha at 25 DAT	Applicaion of bispyribac at 200 g/ha applied at 15-25 DAT could be a suitable herbicide for complex weed flora in transplanted rice.
Assessment of	Low yield of rice due to	T1-NPK @ 75 : 40:	STCR based

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IPNM based STCR in Rice	imbalanced and inadequate use of fertilizers	10 kg / ha T2-NPK as per STCR equation (NPK @ 90 : 50: 30 kg / ha, ZnSO ₄ 10 kg/ha) ,FYM 3 trolley)	fertilizer and manures application i.e. NPK @ 90 : 50: 30 kg / ha, ZnSO ₄ 10 kg/ha and FYM 3 trolley not only increase the growth and yield of rice but also improved and sustained the soil fertility
Assessment of clodinfop + metsulfuron methyl for weed management in wheat	Competition of weeds for nutrients may results in such obvious responses as dwarfing in plant size, nutrient starved conditions, wilting and actual dying out of wheat.	T1: Farmers are not caring weed management practices T2: Use of clodinfop + metsulfuron methyl @ 400 g/ha at 25-30 DAS	Application of Clodinafop Propargyl 15% + Metsulfuron Methyl 1% WP @ 400 g ha ⁻¹ as post emergence at 25-30 DAS is recommended for controlling weed in wheat
Assessment of integrated nutrient management in wheat	Wheat is nutrient exhaustive and had resulted in decline of soil organic carbon and deteriorating soil health in general for sustainability of the system well as the overall soil health.	T1: NPK @ 50 : 40: 10 kg / ha. T2: NPK as per STCR equation (NPK @100:45:50 kg/ha, ZnSo ₄ 10kg/ha	Application of NPK as per STCR equation (NPK @100:45:50 kg/ha, ZnSo ₄ 10kg/ha) is effective as it serves the purpose in getting the higher yield and maintains the soil health and fertility
Assessment of Indira Chilli against leaf curl disease in chilli	Leaf curl infected plants produced very few fruits when infected within 20-30 days after planting and resulting up to 90 per cent yield loss.	T1:Use of susceptible varieties (Local Variety-Dhaan Mirch) T2: Improved Variety-Indira Chili - 1	Indira Chilli-1is tolerant to sucking pest i.e. white fly and mites. This variety could be demonstrated for planting
Assessment of improved variety of cowpea-	Poor yield may be due to unavailability of high yielding	T1: Use of local varieties T2: Improved Variety- Gomati	Cultivation of Gomati Variety under rainfed situation

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Gomati	improved variety of cowpea along with appropriate advance agronomic management practices.		appropriate for enhancing the yield.
Assessment of improved variety of Potato- Kufri Aanand	Cultivar selection is very important for growers trying to market quality product. The farmers need varieties that show high performance for yield and other essential agronomic traits having reliable superiority.	T1: Use of local/ unidentified varieties. T2: Improved Variety – Kufri Aanand	Kufri Anand is a prolific yielder and has resistance to late blight and tolerance to frost. It has a medium maturation rate and it also performs well as a main-season cultivar and hence recommended for planting.
Assessment of chemical fungicide for the control of early and late blight of potato	Early blight is occurring almost every year primarily due to the soil-borne survival of the fungus, local over wintering/over summering of inoculums, cultivation of susceptible varieties and favourable environmental conditions.	T1: Farmers are not caring disease management practices T2: Use of Redomil MZ @750gm/ha	Application of Redomil MZ @750gm/ha is found suitable to control the infestation of early and late blight
Assessment of improved variety of Tomato- Nirupam against leaf curl virus	Low yield due to heavy infestation of leaf curl virus in local variety	T1: Local var. T2: Improved Variety-Nirupam	Local variety of tomato can be replaced by improved variety Nirupam which shows resistance against leaf curl virus
Assessment of improved dual purpose color breed for poultry	Desi non descript poultry bird have low egg production and body weight gain	T1: desi breed T2: Improved dual purpose color breed of poultry (Dlam red)	Improvement in performance such as egg production and weight gain has been derived from the application of improved Dlam Red gain poultry breed

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Assessment of regular De-worming with broad spectrum fenbendazole drug	Infection with helminths impacts on the growth production and reproduction performance of livestock.	T1: Do not follow up the regular de-worming schedule. Only take local available treatment T2: Follow up the regular de-worming schedule with broad spectrum drugs (Fenbendazole @ 7.5mg /kg b.w)	Fenbendazole as anthelmintics has a clear beneficial on the growth production and reproduction performance of livestock
Assessment of Ambika Paddy Weeder in line sowing of Rice	In rice cultivation, manually weeding is one of the time and energy consuming operation and also labour cost increasing tremendously from last decade.	T1: Farmers Practices T2: Weeding done by Ambika Paddy Weeder	Ambika Paddy Weeder accounted 25-30 % more yield as compared to traditional practice of rice cultivation and where as energy saved 35-40MJ/ha in inter-cultural operation practice and hence recommended.
Assessment of weed management in transplanted paddy crop	Manual weeding is although effective and most common method, however, scarcity and high wages of labour particularly during peak period of agricultural operations make this method uneconomic.	T1: No use of chemical weed control T2: Use of Bispiribek Sodium 200g ha ⁻¹ at post emergence application at 20-22 DAT	Use of Bispiribek Sodium 200g ha ⁻¹ at post emergence application at 20-22 DAT
Assessment of improved variety of Kodo Millet “JK-48”	Low yield due to use of local variety	T1:Local variety T: Improved Variety JK -48	Planting of improved and high yielding variety JK- 48
Assessment of weed management in wheat crop.	The competition of weeds for nutrients may results in such obvious responses as dwarfing in plant size, nutrient starved conditions, wilting and actual dying	T1: Farmers Practices T2:Use of Clodinafop Propargyl 15% + Metsulfuron Methyl 1% WP @ 400 g	Use of Clodinafop Propargyl 15% + Metsulfuron Methyl 1% WP @ 400 g ha ⁻¹ at post emergence application at 25-

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	out of plants.	ha ⁻¹ at post emergence application at 30-35 DAS	30 DAS is effective against weed management in wheat
Assessment of STCR based nutrient management in Wheat	Wheat is nutrient exhaustive and had resulted in decline of soil organic carbon and deteriorating soil health in general for sustainability of the system well as the overall soil health.	T1: Use of NPK @ 50 : 40: 10 kg / ha. T2: Balance use of fertilizer on the basis of STCR.	integrated use of NPK fertilizer with FYM based on STCR approach not only gives higher wheat yield but also improve and sustain the soil fertility
Assessment of performance of deworming on milk yield.	parasitism is responsible for reduced weight gain, milk production and reproductive performances .	T1: No use of deworming T2:Supplementation of dewormer to animal after calving till 4 month. albendazol tablet.	Routine anthelmintic treatment of cattle is essential to get better growth and milk production.
Assessment of performance of VanRaja & RIR Poultry Birds	the production and reproduction performance of local Indigenous birds are poor	T1: Rearing of desi bred T2: Performance of Vanraja & RIR Birds in semi intensive poultry farming system	Performance of RIR and Vanaraja were comparatively better than local Indigenous birds in terms of body weight, egg production and egg weight
Assessment of bacterial wilt resistant Variety of Brinjal Pant Rituraj	Bacterial wilt (BW), caused by Ralstonia solanacearum, is a major limiting factor for eggplant (Solanum melongena) production The pathogen is difficult to control because it is soilborne and has a wide host range	T1: Local variety T2:Improved Var. - Pant Rituraj	Planting resistant variety- Pant Rituraj is the most efficient and simplest method of disease control.
Assessment of Integrated Nutrient Management in Tomato	The majority of tomato growers do not produce good quality fruit at high yield due to lack of knowledge regarding	T1: Farmers Practices T2:Recommended Dose of fertilizer NPK @ 150:100:75	Application of 10 t FYM and NPK @150:80:60 kg ha' followed with root dip of

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	improved production technologies including use of proper inorganic and organic fertilizers . Farmers use imbalance inorganic fertilizers in order to harvest good yield.	kg/ha + Culture (5kg/ha)	seedling in Azotobacter chroococum solution @ 1% for 15 min or 5 kg/ha is recommended for tomato cultivation
Assessment of improved high yielding variety of potato	Poor yield due to use of local variety	T1: Local variety T2:Improved high yielding variety – Kufri Jyoti	Kurfi Jyoti var. of potato is recommended with improved package and practices in Korea district
Assessment of Integrated Nutrient Management in potato	Potato being a high yielding and highly nutrient exhaustive crop needs higher quantities of nutrient.	T1:Farmers Practices T2:Recommended Dose of fertilizer NPK @ 150:100:75 kg/ha + Culture	Application of recommended Dose of fertilizer NPK @ 150:100:75 kg/ha + Culture brought paramount of improvement in growth and tuber yield of potato and hence recommended for potato
Assessment of seed drill for line sowing of Rice	Paddy is largely grown traditionally by manual transplanting. Manual transplanting requires a lot of labours besides involving drudgery and is also very expensive. Scarcity of labours is another major problem.	T1: Farmers Practices T2:Line sowing of paddy by Seed drill	Sowing of paddy using tractor operated seed drill was found to be more economical for the farmers as it reduced the cost of production and give higher yield compared to conventional method of paddy transplanting and hence recommended for line sowing of rice.
Assessment of	traditional animal drawn	T1: Puddling	It is evident

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rotavator for puddling operation in Rice.	country plough requires more time in puddling and also not so efficient	operation done by cultivator . T2: Puddling operation done by Rotavator .	that the puddling done by Rotavator have a significant effect on the yield of the crop and hence recommended for rice cultivation
Assessment of seed drill for line sowing of wheat.	1. Low plant population in rabi crops due to broadcasting 2. Low grain yield of rabi crops 3. Lack of knowledge about tractor operated sowing equipments	T1: Broadcasting method T2: Line sowing of wheat by Seed cum Fertilizer drill	Tractor operated seed cum fertilizer drill can be acceptable machine for the farmers for sowing of wheat after paddy harvesting since it gives higher yield compared to traditional broadcasting method.
Assessment of improved variety of paddy "Karma Masuri" suitable for rainfed condition.	Moisture stress at flowering due to scanty rainfall greatly reduced the yield of upland rice under rainfed condition.	T1: Local variety T2: Improved Variety "Karma Masuri"	Improved high yielding rice variety karma mahsuri suitable for planting under rainfed condition
Assessment of improved variety of Potato "Kufari Lalima"	Cultivar selection is very important for growers trying to market quality product. The farmers need varieties that show high performance for yield and other essential agronomic traits having reliable superiority.	T1: Local variety T2: Improved var. "Kufari Lalima"	Plating of improved high yielding potato variety Kufari Lalima.
Assessment of <i>Trichoderma viridae</i> to control the wilt in Gram	Fusarium wilt in chickpea is the major soil-borne fungus affecting crop. Fusarium wilt epidemics can devastate crops and	T1: Framer's practice T2: <i>Trichoderma viridae</i> @ 6-8 g/kg of Seed	Seed treatment with <i>Trichoderma viridi</i> 1% WP @ 6-8 gm/kg seeds can be effectively

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	cause up to 100% loss in highly infested fields and under favorable conditions		used in the management of chick pea wilt caused by Fusarium oxysporum.
Assessment of rainfed resistant variety of Paddy Indira Barani Dhan-1	It is often found that upland rainfed crop suffered due to soil moisture stress at critical crop growth stage including drought, are responsible for low productivity of rice in upland areas.	T1: MTU – 1010 T2: Indira Barani - 1	This variety is suitable for rainfed shallow lowland and highly resistant to bacterial leaf blight, brown spot and stem borer disease and insect pest and hence recommended for rainfed conditions.
Assessment of improved variety Chattisgarh Sarson.	Poor yield of mustard due to local variety and non availability of variety for late sowing conditions.	T1: Local variety T2: Improved variety Chhattisgarh Sarson.	The Chattisgarh Sarson. variety suitable for late sowing condition
Assessment of quality and yield parameter of Seed Spices under drip irrigation and management practices	Irrigation and fertilizers are costly and scarce inputs for crop production. Availability of irrigation water is limited and therefore, it should be utilized most efficiently by adopting latest irrigation technologies.	T1: Farmer's practice T2: Flood+ Flat Bed System Ridge and furrow method T3: Drip irrigation+ Fertigation +R&F	Irrigation through drip and fertigation with 100 per cent of recommended NPK is recommended for fennel cultivation.
Assessment of Yield and Quality Traits in Brinjal (<i>Solanum melongena</i> L.) under Fertigation	In brinjal production water and nutrients are two most critical and costly inputs and are interrelated in their effects on plant growth and yield. Their efficient management is most important for improving productivity.	T1: Flood+ Flat Bed System T2: Ridge and furrow method T3: Drip irrigation+ Fertigation + R&F	For saving irrigation water and increasing WUE, surface irrigation and fertilization with 100 per cent of recommended NPK of brinjal crop should be replaced with drip irrigation and

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			fertigation with 75 percent of recommended NPK.
Assessment of integrated pest and disease management for leaf curl disease in chilli	Chilli leaf curl caused by chilli leaf curl virus transmitted by whiteflies is one of the major limiting factors in cultivation of the crop.	T1: Farmers Practices T2: Yellow sticky trap@15 per acre spray of neem based insecticide @5ml per litre of water 2-3 times at 10 days interval T3: Spraying of Imidachlorpid 17.5SL @2.5 ml per litre of water	Yellow sticky trap@15 per acre spray of neem based insecticide @5ml per litre of water 2-3 times at 10 days interval has been recommended for leaf curl disease management.
Assessment of sowing techniques on yield attributes and yield of chickpea	The major problem in chickpea sowing under no tillage is the frequent choking of the furrow opener of no-till drill due to long loose straw of paddy lying in the recommended management practices for rice-chickpea cropping system.	T1 -Broad Casting T2-Line sowing T3-Sowing with system of Chickpea intensification	Planting seeds in rows or straight lines by drilling or dibbling at 2cm x 25 cm spacing enhances yield potential in chickpea
Assessment of paddy straw substrate for button mushroom production	Huge quantities of biomass are generated after harvest of paddy and wheat and farmers have the practice of burning it in the field itself. This residue can be exploited for mushroom cultivation.	T1-Paddy straw+ wheat substrate (1:1) T2-Wheat straw substrate T3-Paddy straw substrate	Wheat: paddy (1:1) straw substrate is suited best as substrate for button mushroom production
Assessment of Chickpea + Coriander intercropping on yield attributes and yield of chickpea and coriander	The primary reason for prehistoric multi-cropping probably had more to do with the needs of the farmer's family, rather than any recognition that inter cropping was a good idea. Correct estimation of irrigation	T1-Farmers Practice T2-Drip Irrigation Chickpea + Coriander (2:1) T3-Drip Irrigation (Fertigation)	Planting of two row of coriander between two row chickpea is recommended for chickpea pod borer insect suppression.

Title of OFT	Problem diagnose	Technology details	Recommendations
	efficiency of surface irrigation is difficult as compare to drip irrigation.		
Assessment of Bed Preparation Techniques for different Solanaceous Crops	No use of Machinery for field preparation of brinjal. Raised beds are necessary to avoid problem of water logging in heavy soils.	T1-Control(farmer practices) T2-Ridge and Furrow system T3-Flat bed system	A ridge width of 0.50 m or a ratio of ridge to furrow of 0.30 m is recommended for planting of different Solanaceous Crops
Assessment of Bed Preparation Techniques for Seed Spices Crops	The broadcast method produced taller plants than all other sowing methods. It might have been due to less plant spacing resulting in greater competition and reduction in seed yield.	T1-Broadcasting T2-Ridge and Furrow system T3-Flat bed system	Planting of seed spices in flat bed of 1 m width is recommended for fennel cultivation.
Assessment of Vitamin E and Selenium effect on growth performance of Sirohi goat	Nutrient deficiency in feed resources is important factor contributing to low animal production in arid and semi-arid regions in the world	T1:Injections 1ml normal saline, T2:Injections 90 mg Tocopherol acetate (Vitamin E), T3:Injections 100 mg tocopherol acetate and 1.97 mg sodium selenite	Vitamin E and selenium supplement beneficial effect on live weight gain, FCR, PCR,birth weight of kids, milk yield of does and growth rate
Assessment of Vit E and Selenium effect on reproduction performance of Black Bengal goat	Nutrient deficiency in feed have negative effect on reproduction performance .	T1:Injections 1ml normal saline, T2:Injections 90 mg Tocopherol acetate (Vitamin E), T3:Injections 100 mg tocopherol acetate and 1.97 mg sodium selenite	Vitamin E and selenium supplement beneficial effect on services per conception, litter size, birth weight of kids



