

KEY TECHNOLOGIES ASSESSED/ REFINED

Agro Climatic Zone	Agro-Ecological Zone	Year and Season	Crop/ Commodity	Micro Farming Situation	Identified Problem	Technology Assessed/ Refined	Detail of Technology	Result	
								Yield	Additional Income
2012-13									
North Western Plateau zone	Medium Rainfall Black brown forest soil (AES-IV)	2012-13, Rabi	Sunflower	Rainfed, Upland	Low yield due to no application of micronutrients	Assessment	Assessment of 'Boron' application in Sunflower	15.5	16900
	High rainfall Black brown forest soil (AES-V)	Rabi, 2012-13	Brinjal	Rainfed, Upland	Low yield of Brinjal due to imbalanced application of nutrients	Assessment	Assessment of INM in Brinjal	310.0	102000
	Medium rainfall Red & Black soil (AES- II)	2012-13, Rabi	Tomato	Rainfed upland	Low yield of tomato due to use of local available variety	Assessment	Assessment of Tomato variety "Utkal Pragyan" in rainfed upland	255.0	70000
	High rainfall Black brown forest soil (AES-V)	Rabi, 2012-13	Vegetable nursery	Rainfed, Upland	No subsidiary income of Farm women	Assessment	Assessment of Improved Nursery Management for Income generation of Farm Women	75.0	16000
	High rainfall Black brown forest soil (AES-V)	2013 Kharif	Rice	Rainfed, Upland	Low yield due to moisture stress in upland	Assessment	Assessment of yield potential of drought tolerant short duration rice variety Sahabhagi rice	31.25	10500
	Medium rainfall Red & Black soil (AES- II)	2013 Kharif	Rice	Rainfed, Upland	Low yield due to no use of biofertilizer	Assessment	Assessment of bio-fertilizer in rice under SRI method	50.0	20000
	High rainfall Black brown forest soil (AES-V)	2013 Kharif	Rice	Rainfed, Upland	Low yield of Rice due to indiscriminate use of nutrients	Assessment	Assessment of Nutrient Management in hybrid rice	60.0	32000

2013-14

	High rainfall Black brown forest soil (AES-V)	2013-14 Rabi	Mustard	Rainfed, Upland	Low yield of mustard due to imbalanced application of fertilizer	Assessment	Assessment of INM in Mustard	11.0	28000
	High rainfall Black brown forest soil (AES-V)	2013-14 Rabi	Cauliflower	Rainfed, Upland	Small curd size	Assessment	Assessment of 'Boron' application in Cauliflower	260.0	160000
	High rainfall Black brown forest soil (AES-V)	2013 Kharif	Onion	Rainfed, Upland	Low income in the rainfed upland from rice	Assessment	Assessment of Kharif Onion Var. Agri Found Dark Red	177.0	162500
	High rainfall Black brown forest soil (AES-V)	2013 Kharif	Vegetable seedling	Rainfed, Upland	Low survival of vegetable seedling in rainy season	Assessment	Assessment of low cost poly tunnel for vegetable seedling raising	4500 seedling in 10 m ² unit area	1050
	Medium rainfall Red & Black soil (AES- II)	2013-14 Rabi	Papaya	Rainfed, Medium land	Low yield of papaya due to imbalanced use of plant nutrients	Assessment	Assessment of Nutrient Management in Papaya	380	110000
	Medium rainfall Red & Black soil (AES- II)	2013-14 Rabi	Chilly	Rainfed, Upland	Low yield of chilly due to use of wilt susceptible local varieties	Assessment	Assessment of Chilly variety Utkal Ava	130.0	117000
	Medium rainfall Red & Black soil (AES- II)	2013 Kharif	Turmeric	Rainfed, Upland	Low yield of turmeric due to unavailability of suitable planting material & lack of knowledge regarding package & practices	Assessment	Assessment of turmeric variety Roma	240.0	310000
	Medium Rainfall Black brown forest soil (AES-IV)	2013-14 Late Rabi	Par boiling unit	Homestead	High drudgery of Farm women in parboiling of rice	Assessment	Assessment of Rice Parboiling Unit for drudgery reduction of Farm women	75kg/ sitting	
	Medium Rainfall Black	2013-14 Late Rabi	Sunflower threshing bench	Homestead	High drudgery of farm women while threshing sunflower	Assessment	Assessment of Sunflower threshing bench to reduce	19.2kg/ hr	

	brown forest soil (AES-IV)						drudgery of Farm women		
	Medium Rainfall Black brown forest soil (AES-IV)	2013-14 Rabi	Mushroom	Homestead	Low yield and non acceptability of oyster mushroom variety p.sajarkaju	Assessment	Assessment of Oyster mushroom variety p.eous	140kg./100bed	9800
	Medium Rainfall Black brown forest soil (AES-IV)	2013-14 Kharif	Gladioli	Homestead	Low income of farm women by cultivating marigold	Assessment	Assessment of Gladioli in Backyard for Income Generation of Farm women	200000 spikes/ ha. + 200000cor ms/ ha.	238000
2014-15									
	High rainfall Black brown forest soil (AES-V)	2014-15 Kharif	Groundnut	Rainfed	Low yield due to Boron deficiency in acid soils of Sundargarh district	Assessment	Assessment of Borax application in Groundnut	14.1	30500
	Medium rainfall Red & Black soil (AES- II)	2014-15 Kharif	Maize	Rainfed	Low yield due to imbalanced application of nutrients	Assessment	Assessment of Nutrient Management in Maize	37.5	28700
	Medium rainfall Red & Black soil (AES- II)	2014-15 Kharif	Colocasia	Rainfed	Low yield of Colocasia due to use of local degenerated varieties (PaniSaru, KujiSaru)	Assessment	Assessment of Colocasia var. Muktakeshi	236	137800
	Medium rainfall Red & Black soil (AES- II)	2014-15 Kharif	Brinjal	Rainfed	Low yield of brinjal due to severe infestation of weeds and manual weeding is highly expensive	Assessment	Assessment of weedicide Pendimethalin in Brinjal	339.6	146469
	Medium rainfall Red & Black soil (AES- II)	2014-15 Late kharif	Potato	Rainfed	High market price and low supply during lean period	Assessment	Assessment of Kharif potato var. Kufri Jyoti	172	149500

	Medium rainfall Red & Black soil (AES- II)	2014-15 Rabi	Tomato	Rainfed	Low yield of tomato due to repeated use of same cultivar and unavailability of better varieties than the existing one	Assessment	Assessment of Tomato var. Swarna Sampad	442	236100
	Medium Rainfall Black brown forest soil (AES-IV)	2014-15 Late Rabi	Mahua seed decorticator	Homestead	High drudgery of Farm women Mahua seed decortication	Assessment	Assessment of Mahua seed decorticator for drudgery reduction of Farm women	9.2kg/hr	
	Medium rainfall Red & Black soil (AES- II)	2013-14 Rabi	Papaya	Homestead	Local varieties give low yield, irregular fruiting and fruit size.	Assessment	Assessment of Papaya var, Red Lady for nutritional garden	594qtl/ha	619000
	Medium rainfall Red & Black soil (AES- II)	2013-14 Rabi	Mushroom	Homestead	No production of paddy straw mushroom during winter which has high market demand	Assessment	Assessment of production of paddy straw mushroom during winter season under low cost poly house	730gm/bed	8600
	Medium rainfall Red & Black soil (AES- II)	2015 Kharif	Cowpea	Rainfed	Low yield of cowpea due to use of local varieties	Assessment	Assessment of suitable cowpea varieties under rainfed upland situation	94	82750
	Medium rainfall Red & Black soil (AES- II)	2015 Late kharif	Vegetable seedling	Rainfed	Different soil borne disease like damping off cause serious damage to vegetable seedlings	Assessment	Assessment of different soil treating elements for nursery raising of vegetables	96 healthy seedlings per sqmt	
2015-16									
	Medium rainfall Red & Black soil (AES- II)	2015-16 Rabi	Tomato	Rainfed	Low yield when the fruit makes contact with ground level, infested due to fruit rot and they also faces the problem of sunburn when fruits	Assessment	Assessment of different staking methods in tomatoes	315	189500

					are not shaded by foliage				
	Medium Rainfall Black brown forest soil (AES-IV)	2015-16 Rabi	Chilli	Rainfed	Low yield due to unbalanced use of nutrients	Assessment	Assessment of integrated nutrient management in chilli	106	74750
	Medium Rainfall Black brown forest soil (AES-IV)	Rabi, 2015-16	Potato	Rainfed	Cultivation of Potato Varieties LalPatni	Assessment	Assessment of Potato varieties Irrigated medium land of Plateau ecosystem	229	92150
	High rainfall Black brown forest soil (AES-V)	2015-16 Summer	Mahua seed decorticator	Home stead	Decortication of Mahua seed by traditional beating method is time consuming, laborious and poor keeping quality	Assessment	Assessment of Mahua Seed Decorticator For Drudgery Reduction Of Farm Women	9.8kg/hr	
	Medium Rainfall Black brown forest soil (AES-IV)	2015 Kharif	Baby corn	Home stead	Low income from conventional maize cultivation	Assessment	Assessment of baby corn for income generation of farm women	5200	263400
	Medium rainfall Red & Black soil (AES- II)	2015 late kharif	Papaya	Home stead	Low yield from Papaya due to unavailability of quality seeds and poor management practices	Assessment	Assessment of Papaya Varieties in Kharif under rainfed upland / rainfed medium land	23.6kg/tree	3290
	Medium rainfall Red & Black soil (AES- II)	2015-16 Rabi	<i>Mushroom</i>	Home stead	No production of paddy straw mushroom during winter but has high market demand and price	Assessment	Assessment of production of paddy straw mushroom during winter season under low cost poly house	730gm/bed	8600
	Medium rainfall Red & Black soil (AES- II)	2016 Kharif	Cowpea	Rainfed upland	Low yield of cowpea due to local varieties	Assessment	Assessment of different cowpea varieties	KashiKanchan-110	81250
	Medium rainfall Red & Black soil (AES- II)	2016 Kharif	Vegetable seedling like Tomato	Rainfed upland	Incidence of soil borne disease in vegetable seedling in late kharif	Assessment	Assessment of suitable soil treating chemicals for	Treatment with Bavistin-364	89/ Sqm

							vegetable nursery raising	seedlings/s qm	
2016-17									
	Medium rainfall Red & Black soil (AES- II)	2016-17 Rabi	Tomato	Rainfed upland	Ground contact of Tomato fruit affecting the yield and Fruit quality	Assessment	Assessment of Different staking method in Tomato	Staking in Trellis-365	37390
	Medium rainfall Red & Black soil (AES- II)	2016-17 Rabi	Rice-Chickpea/ Field pea	Rainfed medium land	Low income due to non-adoption of any suitable crop in Rice-fallow	Assessment	Assessment of Chickpea and Field pea in Rice fallow	Rice + Field pea- 15.5 qtl	15100 + 30000 = 45100
	Medium rainfall Red & Black soil (AES- II)	2016-17 Rabi	Chilli	Rainfed medium land	Low yield of chilly due to imbalance application of Nutrients	Assessment	Assessment of Nutrient Management in Chilli	114	74950
	Medium rainfall Red & Black soil (AES- II)	2016 Kharif	Supplementation of calcium and mineral in the diet helps in egg laying which is otherwise reduced due to poor feeding practices	Homestead	Irregular egg laying due to nutritional deficiency	Assessment	Assessment of Calcium syrup and mineral supplement during egg laying period in backyard poultry	1380 eggs/10 birds	6580
	High rainfall lateritic soil (AES- III)	2016-17 Rabi	When the atmospheric temp reduces below 15 degree C , production of the oyster mushroom of varieties HypsizygusUlmariosus (Blue Star) is high	Homestead	Reduction in the productivity of oyster mushroom during low temperature in mid of winter season	Assessment	Assessment of different strains in Oyster Mushroom	120kg/ 100beds	11150

	High rainfall lateritic soil (AES- III)	2016-17 Rabi	The temperature inside the poly house (size 20.10.9ft) is around 8-10 degree high .hence paddy straw mushroom can be produced during winter season	Homestead	Non availability of paddy straw mushroom during winter season but market demand and price is high	Assessment	Assessment of production of paddy straw mushroom during winter season under low cost poly house	120kg/ 100beds	9290
	Medium Rainfall Black brown forest soil (AES-IV)	2016-17 Rabi	Preparation of tamarind sauce increases self-life and it has good acceptability in the market	Homestead	Selling of raw tamarind fetches very low price	Assessment	Assessment of income generation by Value Addition to Tamarind	60kg from 100 kg of raw tamarind	4300