6. Instructional Farm

- a. Location:
- b. **Infrastructure:** such as irrigation facilities (source: well, farm pond, canal, irrigation system: drip, sprinkler etc), water measurement, polyhouse, shednet house, farm equipments, fertigation unit, rain out shelters etc.
- c. Activities: Provide the details such as the different educational, research and demonstration activities that can be performed on the farm
- d. **Photographs:** Photographs of the important facilities preferably with students using those or being demonstrated.
- 7. Research Activities and Achievements (including projects)

: RESEARCH ACHIVEMETS :

Recommendations

Sr. No.	Recommendation					Year			
1.	It	is recommended to use follow	ing weather base	d regression	model for prediction of				
	ve	getative flush emergence in Alp.	honso mango beto	ore three or for	ar weeks by using seven				
	da	sys average temperature from sec	ond fortnight of S	eptember (38 th	met week) and onwards				
	in	orchards managed by using rec	commended technology	ology given by	y Dr. Balasaheb Sawant				
	K	onkan Krishi Vidyapeeth, Dapoli	under Konkan ag	ro-climatic co	nditions.				
	✤ Alphonso mango vegetative flush emergence (3 weeks before)								
		= 31.600+Alphonso mango vegetativ	0.757*TMAX-0.5 e flush emergence	51*TMINI e (4 weeks befo	$R^2 = 0.75^{**}$				
		= 26.848+	1.110*TMAX -0.7	768*TMINI	R ² = 0.64** ** Significant at 1%				
2.	It Sa va	as recommended to sow early, manual Konkan Krishi Vidyapeeth arying climatic condition as sugge	id late and late ric n in Sindhudurg d ested in following	e varieties dev istrict for obta table.	ining stable yield under	2023			
	r.	Sowing period	Forly	Rice var Mid lata	Tetles	2025			
		23 rd meteorological week (04 to 10 June)	Karjat-3 and Phondaghat-1	Palghar-1, Karjat-5 and Karjat-9	Karjat-2 and Ratmagiri				
3.	It	is recommended to sow early, m	id late and late ric	e varieties dev	eloped by Dr. Balasaheb				
	Sawant Konkan Krishi Vidyapeeth in Ratnagiri district for obtaining stable yield under								
	varying climatic condition as suggested in following table.								
	Rice varieties					2022			
	D.	Sowing period	Early	Mid late	Late	2023			
	•	23 rd meteorological week (04 to 10 June)	-	Karjat-5	_				
	•	24 th meteorological week (11 to 17 June)	Ratmagiri-1	-	Ratnagiri-3 and Ratmagi 8				

4.	It is recommended to sow early rice varieties developed by Dr. Balasaheb Sawant Konkan							
	Krishi Vidyapeeth in Palghar district for obtaining stable yield under varying climatic							
	condition as suggested in following table							
	conui	tion as suggested in tonow	ing table.	Γ				
		Sowing period			Early varieties			
	24^{th} to	25 th meteorological week		Karjat-7, I	Karjat-3, Ratnagiri-1 a	nd Phondaghat-1		
	(11 to	o 24 June)						
5.	It is re	ecommended to sow early,	mid late	and late rice	e varieties developed b	y Dr. Balasaheb		
	Sawa	nt Konkan Krishi Vidyar	beeth in l	Raigad dist	rict for obtaining sta	ble yield under		
	varvii	ng climatic condition as su	ggested ir	n following	table.	2		
	Sn	-8	88		Diag variation			
	Sr. No	Sowing period			Rice varieties			
		Sound Politica	E	arly	Mid late	Late		
	1.	23 rd meteorological		-	Ratnagiri-6,	Ratnagiri-8		
		week			Ratnagiri-7, Karjat-			
	2	(04 to 10 June) 24^{th} meteorological	Kariat-7	Kariat-3	5 and Karjat-9			
	2.	week	and Pho	ndaghat-1				
		(11 to 17 June)		e				
6.	It is r	ecommended that, to use 1	:3 row pr	oportion fo	r obtaining higher net	returns and B:C		
	Ratio	under Mustard + Cowpea	a intercro	pping syste	em during rabi-hot we	eather season of	2022	
	Konk	an region.						
7.	In No	orth Konkan coastal zone	of Mahara	ashtra, fodd	ler maize + berseem i	nter-cropping in		
	$2 \cdot 1$ ro	tio is recommended for a	btaining	aignificant	higher proteinous viel	d of fodder and		
	2.1 10			significant	lingher protenious yier	a of founder and	2022	
	net re	turns.						
8.	It is	recommended to grow gr	oundnut	in Konkan	during Rabi –Summe	er season under		
	naddy	straw mulch and be irrig	ated daily	through dr	in irrigation with total	irrigation depth		
	f and							
	of 37	I ha mm and fertigated wi	th 100% .	RDF (25kg	N and 50 kg P_2O_5 ha) through water		
	solub	le fertilizers in five equal	splits of s	six days int	erval to get maximum	yield and more		
	econo	omic returns and water savi	ng.					
	DAS	Source of Fertilizer		Splits	Quantity of Ferti	lizers (Kg/ha)		
	6	1)12:61:0		16:39	22.9	8	2022	
		2) Urea		6:59			2022	
	12	3)12:61:0	-	16:39	22.9	8		
	10	4) Urea		6:59	22.0	0		
	18	5) 12:61:0 6) Urea		10: <i>3</i> 9 6:59	22.9	8		
	24	7) 12:61:0		16.39	22.0	8		
	<u>~</u> +	8) Urea		6:59	22.7	0		
	30	9) 12:61:0		16:39	22.9	8		
		10) Urea		6:59				

9.	9. It is recommended to grow dibbled rice-sweet corn-green gram cropping system on raised							
	bed or flat bed with silver-black polythene mulch (30 micron) to obtain higher yield and							
	economic benefit by using practices given in following table.							
		-	-					
	Particulars	Raised bed	Flat bed					
	1. Bed size	1.0 m. top and 1.20 m.	4.60 m. in breadth and 20.25 m. in					
		m, in length and 8-10	length					
		cm in height		2022				
	2. Spreading of Polythene	Spread single strip of	Seal the four strip of silver-black					
	mulch	silver-black polythene	polythene mulch together and					
	3. Spacing	Rice : $20 \times 15 \text{ cm}$	spread it on the bed					
		Sweet corn : 40 x 30 cm						
		Green gram : 20 x 15 cm	1. 0. NDV 1					
	4. Fertilizer dose Rice : $100: 50: 50$ NPK kg/ha. Sweet corp : $200: 60: 60$ NPK kg/ha							
	Green gram : 25 : 50 : 0 NPK kg/ha.							
10.	Spraying of pre emergence	herbicide Oxadiargyl 80 9	% WP @ 100 g a.1.ha ⁺ (125 g per ha					
	¹ at (125 ml per ha market pr	oduct) 25 DAS or Oxadia	+ cmommuron – emyr @ 4 g a.i. na argyl 80 % WP @ 100 g a i ha ⁻¹ (125					
	at (125 ml per ha market product) 25 DAS or Oxadiargyl 80 % WP @ 100 g a.i.ha ⁺ (125 g per ha market product) <i>fh</i> 1HW at 30 DAS in dry direct seeded rice during <i>kharif</i> season							
	for effective control of weed	s and for obtaining highe	er yield and net returns under Konkan					
	region is recommended.		-					
11.	It is recommended to grow	elephant foot yam-okra c	rops in sequence under lateritic soils					
	of Konkan region with dr	ip irrigation system and	irrigation should be scheduled on					
	alternate day at 100 % PE ('	Total water applied to ele	phant foot yam 117.54 mm and okra					
	crop 224.17 mm) and 125 %	6 RDF (Elephant foot yar	n-FYM @ 10 t ha ⁻¹ + 100:75:100 kg	2021				
	$N:P_2O_5:K_2O$ ha ⁻¹ and Okra-H	$FYM @ 10 t ha^{-1} + 125$	$65:65 \text{ kg } \text{N:P}_2\text{O}_5:\text{K}_2\text{O} \text{ ha}^{-1}$) through					
	straight fertilizers for obtaini	ng higher system product	ion and economic returns.					
12.	It is recommended that, to g	et higher yield and econo	mic returns from rice based cropping					
	systems, Rice crop be grown	n during Kharif season fo	blowed by Bottle gourd or Brinjal or	2021				
	Groundnut or Okra during R	abi season under North K	onkan Coastal Region.					
13.	It is recommended to apply	170 kg ha -1 Konkan Ani	hapurna Briquette + 5 ton FYM (25%					
	RDN) to <i>kharif</i> rice and 7:	5% RDF (150: 45: 45 k	g NPK ha ⁻¹) to rabi sweet corn for	2021				
	obtaining optimum yield and economic returns in rice- sweet corn cropping system in							
	South Konkan Coastal Zone							
14.	Spinach: Nutrient manager	ment						
	It is recommanded that under	r coastal salina soil of No	rth Konkan region to obtain	2019				
	maximum yield and highest	monetary returns, spinach	variety <i>Pusa Harit</i> be cultivated					

	with application of nitrogen @ 75 kg ha ⁻¹ and 50 kg P_2O_5 ha ⁻¹	
	(Khar Land Research Station, Panvel)	
15.	In North Konkan coastal zone of Maharashtra, rice-fodder maize and rice-berseem food-	
	fodder cropping sequences are recommended for obtaining higher yield and economic	2010
	returns.	2019
	(Agricultural Research Station, Palghar)	
16.	Rabi- summer Groundnut: Nutrient management	
	It is accommon dod to each EVM @ 5 the ⁻¹ and shows here $@$ 50 here he ⁻¹ for tilizen door at	
	It is recommended to apply FYM @ 5 t ha and phosphorus @ 50 kg ha Tertifizer dose at	
	the time of sowing and seed dressing with phosphorus solubalizing bacteria (DGRC 2) $@$	2010
	25 g kg for the maximum dry pod yield and net monetary returns in <i>rabi</i> hot weather	2019
	groundnut in Konkan region.	
	(A C Kendele DD Westmede VV Complement DD Chardene VC Northele	
	(A.S. Kambale, B.D. Wagnmode, V.V. Sagvekar and P.D. Chendage, V.C. Navhale	
17	and N.G. Sonone) Kharif groundput: Use of Poelebutrozol	
17.	<i>Knarty</i> groundhut: Use of Faciobutrazor	
	Foliar spraving of paclobutrazol $@$ 100 ppm at 30 and 50 days after emergence is	
	recommended for obtaining maximum pod vield and monetary returns from <i>kharif</i>	
	cultivation of groundnut cultivar TKG Bold in lateritic soils of <i>Konkan</i> region	2019
	cultivation of groundhut cultivar TKO bold in fateritie sons of Konkan region.	
	(A.S. Kambale, B.D. Waghmode, V.V. Sagyekar and P.D. Chendage, V.C. Navhale	
	and N.G. Sonone)	
18.	Rabi- summer groundnut: Management practices	
	Groundnut variety Konkan Bhuratna be sown with spacing of 30 cm x 10 cm and	
	application of 125% RDF (31.25 kg N and 62.5 kg P_2O_2) ha ⁻¹ along with FYM @ 5 t ha ⁻¹	
	is recommended for obtaining maximum pod yield and monetary returns under lateritic	2019
	soils of <i>Konkan</i> region.	
	(A.S. Kambale, B.D. Waghmode, V.V. Sagvekar and P.D. Chendage, V.C. Navhale	
	and N.G. Sonone)	
19.	Rice: Sowing period and age of seedling	
	It is recommended to grow rice hybrid Sahyadri 3 in kharif season by sowing the	
	nursery during 23rd meteorological week (4 June to 10 June) and transplanting 15 days old	
	seedlings for obtaining higher yield and net returns under south Konkan condition.	2018
	(Dr. M.S. Jadhav, Dr. U.V. Mahadkar, Dr. S.A. Chavan, V.A. Rajemahadik, V.N. Shetye,	
	Dr. S.B. Gangawane, V.M. Kanade, Dr. A.P. Chavan, Dr. V.G. More, Dr. D.N. Jagtap and	
	Dr. S.S. Pinjari)	
20.	It is recommended that rice- groundnut, rice- sweet corn and rice- dolichos bean system be	
	grown under organic package of practices to get higher yield and economic returns from	
	rice based cropping system.	2018
	(RARS., Karjat)	

21.	Sugarcane: Planting material and media	
	 For obtaining higher yield from sugarcane in South <i>Konkan</i> region, it is recommended to use the seedlings of single bud set grown in the media comprised of coco-peat and vermi-compost in 1:1 proportion along with <i>acetobacter</i> culture @ 5.00 g kg⁻¹. (Dr. M.S. Jadhav, Dr. S.B. Gangawane, Dr. V.N. Shetye, Shri. V.A. Rajemahadik, Dr. S.A. Chavan and Dr. U.V. Mahadkar) 	2018
22.	Establishment techniques in rice	
	In lateritic soil of south <i>Konkan</i> coastal zone it is recommended to grow direct seeded rice by adopting conservation tillage on flat bed system along with the use of <i>Konkan Annapurna</i> briquettes in combination with soil application of zinc sulphate and copper	2017
	sulphate @ 175, 25 and 5 kg ha , respectively for obtaining higher yield and net returns.	
	(Dr. U.V. Mahadkar, M.S. Jadhav, V.A. Rajemahadik, V.N. Shetye, Dr. S.A. Chavan, V.G. Chavan, Dr. H.M. Patil, Dr. S.S. Pinjari and Dr. D.N. Jagtap)	
23.	IFS model for Kharland	
	The different farming components such as crops [rice (0.50 ha), vegetables (0.27 ha)], Horticulture crops [Coconut (0.15 ha), Sapota (0.03 ha) and spices (0.01 ha) on bund], livestock [Fish pond (0.2035 ha) and Poultry (0.0035 ha)] and complementary [Vermicompost (0.0040 ha), Kitchen garden (0.0028 ha)] are recommended in north Konkan Coastal saline soils. B: C ratio increases if size of pond is increased in IFS. (Khar Land Research Station, Panvel)	2017
24.	Rice- rice cropping system: Nutrient management	
	In North <i>Konkan</i> Coastal Zone of Maharashtra, Rice-Rice cropping system be supplied with recommended dose of NPK along with zinc (120:50:50:6 kg ha ⁻¹) to <i>Kharif</i> rice (hybrid variety) rice and recommended dose of NPK (120:50:50 kg ha ⁻¹) to <i>Rabi</i> / Summer (improved variety) rice for obtaining higher yield and economic returns. (RARS., Karjat)	2017
25.	Rice- sweet corn cropping system: Nutrient management	
	To get higher yield and economic returns by sustaining soil fertility and productivity, application of 50 per cent RDF as inorganics and 50 per cent RDN through FYM to Rice – Sweet corn cropping system is recommended. (RARS., Karjat)	2017
26.	Rice- brinjal or Rice- sweet corn cropping system: Resource conservation	
	To get higher yield and economic returns, it is recommended to grow Rice – Brinjal or Rice – Sweet corn system under minimum tillage along with the application of 125 per cent RDF to both the systems and application of rice straw mulch @ 3 t ha ⁻¹ to Brinjal and	2017

Sweet corn for resource conservation.							
(RARS., Karjat)							
IFS Model (1 ha)							
Integrated Farming System Model is recommended for small and marginal farmer of North							
Konkan Coastal Zone of Maharash	itra (Ar	ea- 1.00 ha)	narginar tarih				
Konkun Coustai Zone or Manarashira (Mea- 1.00 na)							
I. Cropping Systems							
Kharif season	Rabi	season					
Сгор	Area	Сгор		Area (ha)			
	(ha)						
Rice	0.20	Brinjal		0.10			
		Water melon		0.10			
Finger Millet	0.05	Cowpea		0.05			
Ground nut	0.10	Field Bean		0.10			
Cucumber	0.10	Sweet corn		0.10			
Fodder crop-Napier Bajara	0.05	Fodder crop-Nap	pier Bajara	0.05			
Hybrid (Perennial)		Hybrid					
		(Perennial)					
Total I 0.50 Tota				0.50			
II. Horticulture							
1 Mango	Ratna, Keshar and	0.20		,			
		Alphonso	0.20				
2. Aonla		Krishna, Kanchan	0.05				
		and Chakayya					
3. Sapota		Kali patti	0.05				
4. Coconut +		Drawt we					
Intercrops		Pratap Pannivur-1					
1. Black pepper		Konkan Tei	0.05				
II. Chillanion jiji Nutmeg		Konkan Sugandha					
		0					
5. Nursery-		Ratna, Keshar and					
Mango grafts		Alphonso	0.05				
Sapota grafts		Kali patti	0.16				
		Total II	0.40				
III. Livestock							
Dairy Animals 3 cows	$\begin{bmatrix} 2 & C_{I} \\ T & T_{I} \end{bmatrix}$	rossbred Jursey + 1	35.75 m ²				
	Loca	1	2 2 2 2 2				
Goat unit (10 F + 2 M)	Konk	an Kanyal	35.75 m ²				
Poultry 3 to 4 batches/year	Girir	aj and	35.75 m ²				
(150 to 200 birds/batch)	Kada	knath	10= 0= 2				
	Total	111	107.25 m ²				

	IV. Complementary enterprise						
					10.00 2		1
	Vermicompost unit	Eise	enia fetida		$\frac{18.00 \text{ m}^2}{10.00 \text{ m}^2}$		1
		Tota	al IV		18.00 m ²		1
	V. Land for other uses						
	Stores, threshing yard, or	perational a	rea, roads, bun	ds, etc.	874.75 m ²		1
	Total V				874.75 m ²		
	Grand Total (I+II+III+IV	/+V)			1.00 ha		
28.	Rice based cropping system	n: Sweet co	rn and brinjal				
	In south Konkan Coastal Zor	ne of Mahar	ashtra, Rice- sw	eet corn and	l Rice Brinjal croj	pping	
	systems are recommended for obtaining higher yield and economic returns						2017
	(ARS., Phondaghat)						
29.	Summer Groundnut: Mule	ching, hydro	ogel and nutrie	nt manager	nent		
	For obtaining higher produc	tion profit	and better water	use efficie	ney with saving o	f 25%	
	water under lateritic soils of	f <i>Konkan</i> in	groundnut, app	lication of	hvdrogel @ 5.0 k	$x^2 = 2570^{-1}$	
	and use of integrated nutrier	nt managem	ent (7.5 t ha ⁻¹ F)	YM + RDF	25:50:00 NPK k	g ha ⁻¹)	2017
	is recommended.					0)	
	(A.S. Kambale, B.D. Wagh	mode, V.V.	Sagvekar and	V.C. Navha	ale)		
30.	<i>Rabi</i> -Summer groundnut:	Plant popul	lation and nutri	ient manag	ement		
				-1.			
	Application of 125% RDF (31.25 kg N +	+ 62.5 kg P_2O_5 h	a^{-1}) along w	ith recommended	l plant	2017
	spacing (30 cm x 15 cm) to	rabi summei	groundnut is re	commende	d to obtain higher		2017
	production and profitability	under laterit	ic soils of Konka	an			
	(A.S. Kambale, B.D. Wagh	mode, V.V.	Sagvekar and	V.C. Navha	ale)		
31.	Organic: Rice based cropp	ing systems	5				
	In North Konkan Coastal Zo	one of Mahai	rashtra, it is reco	mmended t	hat rice – groundi	nut,	
	rice – sweet corn and rice –	Dolichos bea	an systems be gr	own under	organic nutrient	_	
	management using different	organic sou	rces as detailed l	below, to ge	et higher yield and	1	
	economic returns.						
	Source	Kharif		Rabi crop	DS]	
		rice	Groundnut	Sweet corn	Dolichos bean		2017
	FYM (t ha ⁻¹)	5.0	1.5	6.0	4.0		
	Glyricidia green leaves (t ha^{-1})	7.5					
	Neem cake (t ha ⁻¹)	0.5	0.150	0.6	0.4	1	
	Rice straw (t ha ⁻¹)	4				1	
	Vermicompost (t ha ⁻¹)		0.5	2.0	1.3]	
	Two sprays of cow urine and Vermiwash 10 %			50			

	each at 30 and 60 DAS (lit ha ⁻¹)						
32.	Suru Sugarcane: Planting	g geometry an	d intercroppin	g system			
	In <i>Konkan</i> region it is reco sugarcane be planted in par rows of sweet corn at 45 cr (Dr. M.S. Jadhav, Dr. S.B.	mmended that, red rows at 60 n spacing betw Gangawane, I Chavan and	for obtaining h cm X 60 cm – /een paired row. Dr. V.N. Shetye, Dr. U.V. Maha	igher yield a 120 cm and Shri. V.A. I dkar)	nd net returns, <i>s</i> intercropped wit Rajemahadik, Dr	uru h two :. S.A.	2017
33.	Sugarcane: Planting layo	ut and nutrie	nt management	t			
	In lateritic soils of <i>Koni</i> sugarcane, it should be gu irrigation by using single b fertilized with recommend fertilizers. (Dr. M.S. Jadhav, Dr. S and Dr. U.V. Mahadkar)	<i>can</i> region fo cown by paire ud settling rais ed dose of fert .B. Gangawa	r obtaining hiş d row planting sed in soil + FYI tilizers (250: 12 ne, Shri. V.A.	gher yield a on ridges a M in 1: 1 pro 5: 125 NPK Rajemahad	and net returns and furrows with oportion and sho (ha ⁻¹) through st lik, Dr. S.A. Cl	from h drip uld be traight havan	2017
34.	Okra: Nutrient and irrig	ation manager	nent				
	It is recommended to grow 120-45 cm x 15 cm in pair daily by following the give weekly splits through drip	okra in Red F red row under en schedule wit irrigation to ac	Ferrogenous soil drip irrigation v th RDF (100: 50 hieve higher pro	s of <i>Konkan</i> vith plastic 1): 50) throug oductivity ar	region at a spac nulch and be irr h WSF in seven nd economic retu	ing of igated equal irns.	2017
	Crop Period (weeks)	Wa	ter application				2017
		(.	lit/m length)				
	1 to 5		52				
	6 to 9		50				
	10 to 13		75				
25	14 to 17	V	4'/				
35.	form Kharif drilled rice, pre emergence application of pendimethalin @ 1.00 kg./ha (30 EC) followed by one hand weeding at 25 DAS.						2016
36.	Rice- groundnut cropping	g system: Wee	ed management	t			
	In the <i>Konkan</i> region, for or the rice-groundnut croppin application of herbicide na and pendimethalin (PE) @	btaining highe g system, inco mely pretilachl 1.00 kg/ha 2 to	r yield, net return rporation of greator (PE) @ 0.75 (o 3 DAS to <i>rabi</i>	rns and effec en manure (kg/ha 3 to 7 groundnut	ctive weed contro Sesbania rostrata DAT to kharif is recommended	ol in a) and rice	2016

	(Dr. V.B. Newase, M.J. Mane, Y.R. Govekar, Shri. V.M. Kande and Dr. S.B.	
	Gangawane)	
37.	Rabi Groundnut- kharif rice cropping system: Nutrient management	
	It is recommended to apply 25 kg N + 75 kg P_2O_5 ha ⁻¹ to groundnut and 75% RDF (75 kg N + 37.50 kg P2O5 + 37.50 kg K ₂ O ha ⁻¹) to rice for getting higher yield and economic returns from <i>rabi</i> groundnut- <i>kharif</i> rice system under South <i>Konkan</i> Coastal conditions.	2016
38	(V.V. Sagvekai, D.D. Waginhoue, A.S. Kainbale V.C. Navilale)	
50.	In <i>Konkan</i> region, it is recommended to grow <i>kharif</i> groundnut on Broad Bed and Furrow (BBF) at 80 - 20 cm using 7 micron 44 kg ha ⁻¹ transparent polythene mulch for getting higher yield and economic returns.	2016
20	(A.S. Kambale, B.D. Wagnmode, V.V. Sagvekar and V.C. Navnale)	
39.	grown in North <i>Konkan</i> coastal saline soils having 2.5 to 8.5 d Sm ⁻¹ EC with application of 100% recommended fertilizer dose (100:50:50 N, P_2O_5 , K_2O kg ha ⁻¹)	2016
40	(Knar Land Research Station, Panvel)	
	In lateritic soil of <i>Konkan</i> region, it is recommended to grow sweet corn during <i>rabi</i> season under drip irrigations with application of soil test based major fertilizers along with micronutrients viz. Cu, Zn., B and Mn and amelioration with 50% lime requirement for obtaining higher yield and net return and B: C ratio (Dr. U.V. Mahadkar, V.N. Shetye, V.A. Rajemahadik, Dr. R.T. Thokal, Dr. A.S. Kamble, M.S. Jadhav, Dr. S.A. Chavan and V. M. Kanade)	2016
41.	Direct seeded :Seed rate and nutrient management	
	12. In coastal saline soil of North <i>Konkan</i> region to obtain higher grain yield with high net profit from Panvel 1 rice variety under direct seeded method, crop seeded @ 100 kg ha ⁻¹ with application of nitrogen dose @ 100 kg ha ⁻¹ along with basal dose of P_2O_5 and K_2O is recommended	2015
	(Khar Land Research Station, Panvel)	
42.	Cowpea: Zero tillage, irrigation and nutrient management	
	It is recommended to grow cowpea under zero tilled condition during <i>rabi</i> season and two irrigations (at branching and pod filling stage) along with 100% recommended dose of fertilizer (25: 50: 00 N & P kg ha ⁻¹) should be applied below seed for obtaining higher yield and profitability.	2015
	(Dr. U.V. Mahadkar, Dr. V.N. Shetye, V.A. Rajemahadik, Dr. S.A. Chavan, Dr. L.S. Chavan, V.M. Kanade, Dr. S.B. Gangawane, M.S. Jadhav)	

43.	Mango: Weather forecast model	
	Under recommended package of practices given by Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli; the following weather parameters based model is recommended for one week before prediction of flowering during the period of 1^{st} December to 15^{th} January in Alphonso mango under South <i>Konkan</i> coastal agro climatic conditions. Flowering (forecast 1 week early) = $-91.91 + 10.79$ Tmax + 6.05 Tmini – 3.40 RH-I + 0.86 RH-II – 5.04 BSS – 3.48 Rainfall – 12.62 Rainy days $R^2 = 0.79^{**}$	2015
	(Dr. V.G. Chavan, Dr. S.T. Thorat, Dr. S.B. Gangawane, Dr. V.N. Shetye, Shri. V.A.	
4.4	Rajemahadik, Shri. V.M. Kanade, Dr. S.A. Chavan and Dr. U.V. Mahadkar)	
44.	Mango: Weather forecast model	
	Under standard package of practices as per recommendation of Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, the following weather parameter based prediction model is recommended for three week before prediction of emergence of vegetative flush during the period of last week of September to 1 st week of November in Alphonso mango under South Konkan coastal agro climatic conditions. Alphonso mango vegetative flush emergence (3 weeks before) = 49.47 + 0.44Tmax - 0.18 RH-II - 0.03 Rainfall - 1.61 Evaporation $R^2 = 0.94^{**}$	2015
	(Dr. V.G. Chavan, Dr. S.T. Thorat, Dr. S.B. Gangawane, Dr. V.N. Shetye, Shri. V.A. Rajemahadik, Shri. V.M. Kanade, Dr. S.A. Chavan and Dr. U.V. Mahadkar)	
45.	Kharif Groundnut: Resource management	
	It is recommended to give first preference to fertilizer management followed by weed management and plant protection measures, respectively under economical constraints for obtaining higher productivity and profit from Kharif groundnut under lateritic soils of Konkan	2014
	(V.V. Sagvekar, B.D. Waghmode, S.A. Chavan, B.R. Salvi, U.V. Mahadkar and K.E.	
46.	In <i>Konkan</i> region, for obtaining higher yield and net returns from direct seeded Kharif rice, it is recommended conventional tillage be followed and zero tillage be adopted for succeeding rabi lablab bean (purpureus) in combination with two hand weedings to each crop at 20 & 40 DAS. If there is labour scarcity for hand weeding, pre- emergence application of oxadiargyl @ 0.12 kg/ha for both the crops is recommended.	2013
	(Prof. R.R. Khadase, M.J. Mane, Dr. V.B. Newase, Dr. L.G. Pawar, Dr. S.T. Thorat)	
47.	For effective and economical weed management in direct seeded drilled rice and intern its higher productivity under conditions of south <i>Konkan</i> coastal zone, pre emergence application of oxyfluorfen @ 300 g/ha integrated with PoE application of 2,4-D @ 500 g/ha or hand weeding twice (20 & 40 DAS) is recommended.	2013
1	(M I Mane and Dr. V.B. Newase)	

48.	48. <i>Rabi</i> Groundnut: Nutrient management			
	For obtaining higher productivity and profit from <i>rabi</i> summer groundnut in Lateritic soils of <i>Konkan</i> it is recommended to apply 100 % RDF (25 Kg N + 50 Kg P2 O5) at the time of sowing and 50 % RDF (12.5 Kg N + 25 Kg P2O5) as top dressing at one month after sowing.	2013		
10	(V.V. Sagvekar, B.D. Waghmode, V.N. Shetye, S.A. Chavan, U.V. Mahadkar)			
49.	 <i>Kharif</i> Groundnut: Micronutrient management It is recommended to grow groundnut with the soil application of 20 kg ZnSO₄ ha⁻¹ along with recommended dose of fertilizer (25 kg N + 50 kg P₂O₅) for obtaining maximum yield with higher net returns during Kharif season under South Konkan conditions. (V.V. Sagvekar, B.D. Waghmode, V.N. Shetye, S.A. Chavan, U.V. Mahadkar) 	2013		
50.	Groundnut: Weed management			
	For effective and profitable weed control in rabbi summer groundnut under south Konkan conditions, pre emergence application of Pendimethalin @ 1 kg ha ⁻¹ combined with one hand weeding at 30-35 days after sowing is recommended. If hand weeding is not possible, pre emergence application of Pendamethalin @ 1 Kg ha ⁻¹ be combined with post emergence application of either Quizalofop ethyl @ 50 g ha ⁻¹ or Imazethapyr @ 75 g ha ⁻¹ (V.V. Sagvekar, B.D. Waghmode, V.N. Shetye, S.A. Chavan,	2013		
	U.V. Mahadkar)			
51.	Sweet corn: Irrigation and nutrient management It is recommended to grow sweet corn crop (Variety- Sugar 75) in lateritic soil of <i>Konkan</i> region under inline drip irrigation system and irrigation should be scheduled on alternate day at 7.4 to 19.0 lit plant ⁻¹ from January to April (total water 46.3 ha-cm) with 80% of recommended dose RDF (160: 48: 48 kg ha ⁻¹ , N: P: K) through WSF to get higher production, better quality and benefit. (Dr. R.T. Thokal and Dr. T.N. Thorat)	2013		
52.	Green chilli: Irrigation and nutrient management			
	It is recommended that, in lateritic soil of <i>Konkan</i> region, the green Chilli (<i>Cv. Konkan kirti</i>) crop should be grown under micro-sprinkler irrigation system and irrigation should be scheduled on alternate day with 100% PE (total water 60 cm) should be applied with recommended dose (150: 50: 50, N: P: K) of fertilizer to get maximum production.	2013		
52	(Dr. K.1. Thokal and Dr. T.N. Thorat)			
53.	Banana: Micro irrigation It is recommended to grow banana crop (cv <i>Safed velchi</i>) in lateritic soil of <i>Konkan</i> region, with microjet irrigation and be irrigated on alternate day 13 to 15 lit. plant ⁻¹ during October to January and 18 00 to 21 00 lit. plant ⁻¹ during February to onset of monsoon (Shri V A	2013		

	Rajemahadik, Dr. V.N. Shetye, Dr. S.A. Chavan, Dr. U.V. Mahadkar, Dr. R.T.	
	Thokal, Shri. M.S. Jadhav, Shri. V.G. Chavan, Shri. V.M. Kanade and Dr. S.B.	
	Gangawane)	
54.	Rice- rice cropping system: Nutrient management	
	It is recommended that for yield maximization in hybrid rice – hybrid rice system, the crop	
	be fertilized	
	@ 150: 100: 150: 0.8: 10: 6 kg N, P ₂ O ₅ , K ₂ O, B, Fe, Zn ha ⁻¹ during <i>kharif</i> and @	2012
	150:100:150 kg N, P ₂ O ₅ , K ₂ O ha ⁻¹ during <i>rabi</i> season under North Konkan Coastal Zone of	
	Maharashtra.	
	(RARS., Karjat)	
55.	Lablab bean: Weed management	
	It is recommended that for effective control of Cuscuta on lablab bean, the field be	
	ploughed and <i>Pendimethalin</i> @1.0 kg ha ⁻¹ as pre- emergence with sand mix be applied to	2012
	obtain higher yield and net returns.	
	(Dr. L.G. Pawar, Dr. V.B. Nevase and M.J. Mane)	
56.	White Onion: Nutrient and weed management	
	It is recommended that onion local cultivar Alibag White be fertilized with 150 kg N + 75	
	kg $P_2O_5 + 25$ kg K_2O has and for effective weed control oxyfluorten @ 0.176 kg a.i. has	
	be applied 4 days after planting followed by one hand weeding at 50 days after planting.	2012
	Under the scarcity of labourers, the crop be supplied with the same fertilizer dose and for	
	effective weed control oxyfluorten $@ 0.176 \text{ kg a.i. ha}^{\circ}$ be applied 4 days after planting to	
	get higher yield and net returns under the condition north Konkan coastal zone.	
	(Prof V N Khada and M I Mana)	
57	Pice brinial cropping system	
57.	Rice- orinjar cropping system	
	In North Konkan Coastal Zone, it is recommended to follow Rice-Brinial Cropping	
	sequence as most profitable proposition	2011
	(RARS., Karjat)	
58.	1. Under Konkan conditions, Kharif rice be established in uplands by system of rice	
	intensification (SRI) at 25 cm X 20 cm spacing and for effective weed	
	management hoeing by rotary weeder be carried out for obtaining higher yield	2011
	and net returns.	2011
	(Dr. L.G. Pawar and Dr. V.B. Newase)	
59.	Under conditions of Konkan, direct seeded dibbled rice be sown in uplands before	
	onset of monsoon and for effective weed management pretilachlor-with safener (50	
	EC) be applied as pre emergence 0.5 kg ha^{-1} for obtaining higher yield and net returns.	2011
	(Dr. L.G. Pawar and Dr. V.B. Newase)	
60.	Banana: Intercropping and irrigation management	2011

	It is recommended that, in lateritic soil of Konkan region, the Banana (cv. Grand Naine)	
	should be grown as inter crop in Arecanut plantation for first three years under drip	
	irrigation system and water should be applied @10-12 lit day ⁻¹ plant ⁻¹ from November to	
	January and 15-18 lit day ⁻¹ plant ⁻¹ from February to May to get additional benefit from	
	inter cropping.	
	(Dr. R.T. Thokal and Dr. T.N. Thorat)	
61.	1. Paired row planted dibbled hybrid rice under upland conditions may be grown	
	(15x15-30 cm) in a single way skipping pattern and the crop may be manured 7	
	WAS either with 7.5 tons <i>Glyricidia</i> green leaves or in situ grown <i>S. rostrata</i> crop	
	in skipped rows @ 6 t ha ⁻¹ For effective weed management in such a crop hoeing	
	with Languese hoe 2 4 and 7 WAS should be integrated with a manual weeding 6	2010
	WAS	
	WAS.	
	(Dr. I. C. Derror and Dr. S.T. Thorast)	
()	(Dr. L.G. Pawar and Dr. S.1. Thorat)	
62.	Rice-rice cropping system: Nutrient management	
	In North Konkan Coastal Zone of Manarashtra to improve soil fertility and sustain	
	productivity of rice under rice- rice cropping systems, 50 per cent of RFD (50: 25: 25 kg N,	
	P_2O_5 and K_2O ha ⁻¹) as inorganics should be integrated with rest 50 kg N of RFD in the	2010
	form of either FYM (10 t ha ⁻¹) of Glyricidia green leaves (10 t ha ⁻¹) during <i>Kharif</i> and 100	
	per cent RFD as inorganics (120: 50: 50 kg N, P_2O_5 and K_2O ha ⁻¹) should be applied during	
	rabi-hot weather season.	
	(RARS., Karjat)	
63.	Weed control in rice	
	For effective and economical weed control in rice crop, in case of rice-rice cropping system	
	in medium black soils of Raigad district, pre-emergence application of pretilachlor @ kg	
	ha ⁻¹ to kharif rice under drained condition be followed. For rabi hot weather rice, pre-	
	emergence application of butachlor @ 1.25 kg ha ⁻¹ plus combination product of	2008
	metsulfuron methyl 10% + chlorimuron ethyl 10% WP i.e. Almix @ g.a.i. ha ⁻¹ 3 days after	
	transplanting be followed. However, whenever field draining is not practically feasible	
	two hand weddings to kharif rice at 25 and 45 days after transplanting and one hand	
	weeding to <i>rabi</i> rice at 40 days after transplanting be followed.	
	(Dr. L.G. Pawar and M.J. Mane)	
64.	Organic farming: Varieties	
	Sahyadri-3, Sahyadri-4, Sahyadri-5, Karjat-3, Karjat-5, Karjat-8 and Ratnagiri-3 rice	
	hybrids/ varieties are recommended to grow under organic package for getting higher yield	
	and economic returns during <i>kharif</i> season.	
	Groundnut varieties Konkan Gauray, TG 26 and JL 776 are recommended to grow	
	under organic package for getting higher yield and economic returns during $rahi$ – hot	
	weather season.	
	woulder souson.	
	(RARS., Kariat)	
1	(AN ARNOW ARNOUTH)	

65.	Sweet corn: Irrigation and nutrient management				
	 In <i>Konkan</i> region on the newly developed terraced land, it is recommended to irrigate <i>rabi</i> sweet corn (var. <i>Madhu</i>) with 50 mm irrigation depth at 10 days interval for obtaining higher yield. The fertilizer dose of 30 kg N (Urea) along with 18 tones of FYM per hectare is also recommended. (Dr. R.T. Thokal and Dr. T.N. Thorat) 	2008			
66.	Cabbage: Pressurized irrigation and nutrient management				
	 In <i>Konkan</i> region under lateritic soil it is recommended to irrigate <i>rabi</i> Cabbage (var. Golden Acre) by micro sprinkler irrigation with 13 mm irrigation at 3 days interval for obtaining higher yield. The fertilizer dose of 120: 60: 60 kg NPK (Urea, SSP, MOP) ha⁻¹ is also recommended. 	2008			
	(Dr. R.T. Thokal and Dr. T.N. Thorat)				
67.	ECF project Due to ECF scheme employment had increased 21.31 per cent and income has increased by 84.13 per cent over non beneficiaries. It is recommended that for effective transfer of recommended agricultural technologies ECF scheme be implemented on cultivators field on large scale by the extension agencies and scientists of the University.				
68	(KARS., Kaljal)				
00.	Konkan Jalkund - A micro rain water harvesting technique for horticulture crops on hill slopes of Konkan				
	Relevance				
	• Micro rainwater harvesting technology on hill slopes for newly planted mango and cashew grafts where farmers do not have access of water source.				
	Key features of the technology				
	\checkmark Dimension: Pit size 4 x 1 x 1m or 2 x 1 x 2 m				
	✓ Capacity:4000 lits. per structure				
	✓ Lining & cushioning: HDPE, Silpaulin(200GSM) + paddy straw				
	✓ Silpaulin paper size: $7 \times 4m$ or $7 \times 6m$ as per pit size				
	✓ Number of pits (ha): Mango-10 pits & Cashew-20 pits				
	 Percent survival of grafts: 85-87 % Construction cost: Ba 6 400/ 				
	Construction cost: Rs.0,400/- \checkmark Cost of rain water harvested: Rs.0,35-0,40 / lit				
	Monetary gains (0.5 ha area)				
	District Mango Cashew				

	Ratnagiri	Rs.41, 600/-	Rs.30,800/-				
	Sindhudurg	Rs. 43,500/-	Rs.32,900/-				
	TSP programme Raigad & Palghar (Year 2013-14 to 2016-17)						
	 Area enhancement under mango & cashew: 52.7 ha Beneficieries: 264 						
	• Water stored: 2108 meter cube						
	Resolution for allocation of grants by Maharashtra Govt.: Rs.40 crores						
	State Govt. grant allocations as subsidy : Rs. 2 crore 60 lakh (DistRatnagiri) and Rs. 2						
	crore 82 lakh (Dist-	Sindhudurg)					
69.	Under lateritic soil crop should be sown	conditions of Konk two weeks after or	an region, it is recommended that the bitter gourd uset of monsoon for getting highest fruit yield.	2005			
70.	Under lateritic soil cucumber crop be so	l conditions of sou	uth Konkan region, it is recommended that the ter onset of monsoon.	2005			
71.	For effective and ec two hand weedings whwewnever man weeding, pre emerg with hand weeding of	onomical weed com one at 20 DAS and power is not avail gence application of once at 45 DAS.	trol in dolichos bean during rabi hot weather season d another at 45 DAS should be followed. However lable for manual operations like hoeing or hand c oxydiargyl @ 0.1 kg a.i. ha ⁻¹ be integrated given	2005			
72.	Agril. Meteorology In lateritic soil of K of monsoon (24 th M	onkan region, bitter W, 11-17 June) for	guard crop should be sown immediately after onset getting highest fruit yield.	2004			
73.	For effective weed of plant incorporation	control in <i>rabi</i> chilli followed by 1 hoein	, fluchloralin @ 1 kg a.i. ha ⁻¹ may be applied as per g one month after transplanting.	2004			

d. Completed Research Projects/Programmes/Schemes

Title: UR Nos.: Objectives: Name of PI/ Co-PI Sponsoring Agency: Duration: Total Outlay: Summary of Achievements: Relevant Photographs:

- e. **Ongoing Research Projects/Programmes/Schemes:** Only provide the name of the on going Research Projects/Programmes/Schemes. The details of the on going Research Projects/Programmes/Schemes will have to be provided by the concerned in charge in the separate format provided for this purpose. The link will be provided here with those details.
 - 8. Repository of abstracts of the theses: Provide here the years wise details of the abstract of the theses/projects approved by the Department/Section for Bachelor, Masters and Doctoral theses in following format

Name of the candidate:

Degree for which the thesis/project report submitted:

Year of submission:

Name of the Guide/Co guide:

Abstract:

9. Extension Activities

a. The training programmes organized

Title:

Sponsorer:

Date and duration:

Participants: (Nature of the participation for eg. Farmers, Govt official, Academician etc and no. of participants)

Schedule of the training programme:

Special feature of the training programme: for eg training programme was especially for the women participant

One photograph

b. Seminar/Symposia/Conference/Workshop Organized

Title:

Sponsorer:

Date and duration:

Participants: (Nature of the participation and no. of participants)

Schedule of the Seminar/Symposia/Conference/Workshop:

Key Note Speakers along with their topic of speech

No. of papers presented

Whether papers published in abstract/full length form? If so provide the details in bibliographical format.

One photograph

c. Farmer Melawa Organized

Title:

Sponsorer:

Date and duration:

Participants: (Nature of the participation for eg. Farmers, Govt official, Academician etc and no. of participants)

Name of the speakers along with their topics One photograph

- d. **Radio/TV Talks delivered by the staff members of the Department/Section:** Provide the relevant details such as name of the person, topic, where and when delivered etc.
- e. **Farmer-Scientist Forum:** The name of the form along with the in charge of the forum, members of the forum (name, address and phone number) and activities of the forum be provided here.
- f. **Other Extension Activities:** Provide the details of any other notable extension activities performed by the Department/Section
- g. **Publications:** Provide the details of the following publications published by the Department/Section in bibliographical form

Books
Booklet/bulletin
Folders
Souvenir/Proceedings of Seminar/Symposia/Conference/Workshop
Organized
Training manuals of the training programme organized
Journal Research papers
Full length research papers published in Proceedings of Seminar/Symposia
/Conference/Workshop

10. Details of other activities (for e.g. seed production, production of other commodities etc)

11. Contact Information

Name of the Head Name of the Department Postal Address Landline Number Mobile Number Fax Email

12. News and Events