



SANGLI DISTRICT

CONTINGENT CROP PLANNING AND AGRO ADVISORY

EDITORS

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1.3	Land use pattern of the district (latest statistics)	Geographical Area	Cultivable area	Forest area	Land under non-agricultural use	Permanent Pastures	Cultivable wasteland	Land under Misc. tree crops and groves	Barren and uncultivable land	Current fallows	Other fallows
	Area (000 ha)	861	506.0	45.1	43.4	15.3	14.7	16.1	36.8	42.5	57.9

(Source: Agricultural Statistical Information, Maharashtra State www.krishi.maharashtra.gov.in)

1.4	Major Soils	Area ('000 ha)
	Shallow black/Red soils	389.4
	Deep black soils	142.7
	Medium deep black soils	63.4

(Source: NBSS & LUP, Nagpur)

1.5	Agricultural land use	Area ('000 ha)	Cropping intensity (Per cent)
	Net sown area	584.7	146.5
	Area sown more than once	131.5	
	Gross cropped area	632.6	

1.6	Irrigation	Area ('000 ha)		
	Net irrigated area		144	
	Gross irrigated area		190	
	Rainfed area		421.6	
	Sources of Irrigation	Number	Area ('000 ha)	Percentage of total irrigated area
	Canals	-----	45.0	25.8
	Tanks	100	0.2	0.1
	Open wells	23167	63.6	36.5
	Bore wells	133	3.4	2.0
	Lift irrigation schemes	680	40.0	22.9
	Micro-irrigation		10.0	5.7
	Other sources (please specify)		11.7	6.7
	Total Irrigated Area		174	100.00
	Pump sets	199567		
	No. of Tractors	4000		
	Groundwater availability and use* (Data source: State/Central Ground water Department /Board)	No. of blocks/ Tehsils	(%) area	Quality of water (specify the problem such as high levels of arsenic, fluoride, saline etc)
	Over exploited	6	60	Good
	Critical	2	20	Good
	Semi- critical	-		
	Safe	2	20	Salty
	Wastewater availability and use	-	-	-
	Ground water quality			

1.7 Area under major field crops & horticulture etc. (2015-16)

1.7	Major Field Crops cultivated	Area ('000 ha)									
		Kharif			Rabi			Summer			Total
		Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	
	Sorghum	-	48.2	48.2	-	148.8	148.8	-	-	197.0	
	Pearlmillet	-	68.4	68.4	-	-	-	-	-	68.4	
	Soybean	-	36.0	36.0	-	-	-	-	-	36.0	
	Sugarcane	74.5	-	74.5	-	-	-	-	-	74.5	
	Groundnut	-	26.6	26.6	-	-	-	-	8.0	34.6	
	Wheat	-	-	-	26.4	-	26.4	-	-	26.4	
	Horticulture crops – Fruits	Total area('000 ha)			Irrigated			Rainfed			
	Grapes		18.1	18.1					-		
	Pomegranate		7.27	7.27					-		
	Mango		1.317	1.317							
	Horticultural crops – Vegetables	Total area('000 ha)			Irrigated			Rainfed			
	Tomato		2.1	2.1					-		
	Onion		1.5	1.5					-		
	Spices										
	Turmeric		8.5	8.5					-		
	Medicinal and Aromatic crops		--	--					--		
	Plantation crops	Total area('000 ha)			Irrigated			Rainfed			
	Others such as industrial pulpwood crops etc (specify)										
	Fodder crops	Total area('000 ha)			Irrigated			Rainfed			
	Total fodder crop area		34.7	34.7					34.7		
	Grazing land		17.7	17.7					--		
	Sericulture etc		--	--					--		

Source: District Agricultural Information, Sangli District 2015

1.8	Livestock	Male	Female	Total
	Non descriptive Cattle (local low yielding)	-	-	241.7
	Crossbred cattle	-	-	111.56
	Non descriptive Buffaloes (local low yielding)	-	-	421.8
	Graded Buffaloes	-	36.01	36.01
	Goat	-	-	370
	Sheep	-	-	207
	Others (Camel, Pig, Yak etc.)	-	-	-
	Commercial dairy farms (Number)			8.23
1.9	Poultry	No. of farms	Total No. of birds	
	Commercial	212	2125	
	Backyard			
1.10	Fisheries (Data source: Chief Planning Officer)			
	A. Capture			
	i) Marine (Data Source: Fisheries Department)	No. of fishermen	Boats	Nets
	NA		Mechanized	Mechanized (Trawl nets, Gill nets)
			Non-mechanized	Non-mechanized (Shore Seines, Stake & trap nets)
		NA	NA	NA
	ii) Inland (Data Source: Fisheries Department)	No. Farmer owned ponds	No. of Reservoirs	No. of village tanks
		266	392	
	B. Culture			
		Water Spread Area (ha)	Yield (t/ha)	Production ('000 tons)
	i) Brackish water (Data Source: MPEDA/ Fisheries Department)	NA	NA	NA
	ii) Fresh water (Data Source: Fisheries Department)	4098	712	2500

1.11 Production and Productivity of major crops (2011-12,13,14,15,16)

1.11	Name of crop	Kharif		Rabi		Summer		Total Production ('000 t)	Average Productivity (kg/ha)	Crop residue as fodder ('000 tons)
		Production ('000t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)			
Major Field crops										
	Sorghum	50.0	952	146.2	1024	-	-	145.2	988	-
	Soybean	58.3	1443	-	-	-	-	58.3	1443	-
	Sugarcane	---	-	-	-	6994	96000	6994	96000	-
	Pearlmillet	24.8	316	-	-	-	-	24.8	316	-
	Groundnut	22.1	872	-	-	-	-	22.1	872	-
Major Horticultural crops fruits										
	Grape	2360	23200	-	-	-	-	2360	23200	-
	Pomegranate	377	26000	-	-	-	-	377	26000	-
Major Horticultural crops vegetable										
	Tomato	441	21400	-	-	-	-	441	21400	-
	Onion	22.6	12080	-	-	-	-	22.67	12080	-
Spices										
	Turmeric	1.0	1000	-	-	-	-	1.0	1000	-

1.12	Sowing window for 5 major field crops (start and end of normal sowing period)	Sorghum	Soybean	Sugarcane	Pearl millet	Groundnut
	<i>Kharij</i> - Rainfed	15 th to 30 th June	15 th to 30 th June	-	15 th June to 15 th July	15 th -30 th June
	<i>Kharij</i> -Irrigated	15 th -30 th June	15 th -30 th May	Seasonal: Jan 15 th -30 th Pre seasonal: Oct 15 th -Nov 15 th Adsali: Aug 1 st -15 th	-	1 st June to 15 th July
	<i>Rabi</i> - Rainfed	15 th September to 15 th Oct	-	-	-	
	<i>Rabi</i> -Irrigated	30 th September to 15 th Oct	-	-	-	
1.13	What is the major contingency the district is prone to?		Regular	Occasional		None
	Drought		--	✓		--
	Flood		--	✓ (Walawa, Miraj)		--
	Cyclone		--	--		✓
	Hail storm		--	✓ (Rare)		✓
	Heat wave		--	✓ (Rare)		--
	Cold wave		--	✓ (Rare)		--
	Frost		--	--		✓
	Sea water intrusion		--	--		✓
	Pests and disease outbreak (specify)			✓		
	Others (specify)			---		
1.14	Include Digital maps of the district for	Location map of district within State as Annexure I		Enclosed: Yes		
		Mean annual rainfall as Annexure 2		Enclosed: No		
		Soil map as Annexure 3		Enclosed: Yes		

2.0 Strategies for weather related contingencies

2.1 Drought

2.1.1 Rainfed situation

Condition		Suggested Contingency measures				Remarks on Implementation
Early season drought (delayed onset)	Major Farming situation	Normal Crop / Cropping system	Change in crop / cropping system including variety	Agronomic measures		
Delay by 2 weeks (June 4 th week)	Shallow Black/Red Soils	Groundnut	No change.	Adopt recommended package of practices	Seed source MSSC, NSC and ARS, K. Digrāj ARS, Karad MPKV, Rahuri	
	Medium deep black soils	Pearlmillet	Pearlmillet (Adishakti, Dhanshakti)	Adopt recommended package of practices		
Deep Black Soils		Soybean	Pigeonpea	<ul style="list-style-type: none"> • Pearl millet + pigeonpea (2:1) • Soybean + pigeonpea (3:1) 	<ul style="list-style-type: none"> • Hoeing at 25 DAS 	
	Sorghum		Kharif fallow	<ul style="list-style-type: none"> • Soybean (Phule Agrani, phule sangam, JS-335) • Soybean (Phule Agrani, phule sangam , JS-335,) + Pigeonpea (Vipula, BDN-708, BDN-711, BSMR-853) (6:2) intercropping 	<ul style="list-style-type: none"> • Prefer early cultivars of Soybean (JS-9305), • Prefer rust tolerant variety of Soybean (DS-228) • Seed treatment with Thiram + Carbendazim 2 g each / kg • Treat pigeonpea seed with trichoderma 5 g per kg of seed 	
				<ul style="list-style-type: none"> • Soybean + Pigeonpea (6:2) intercropping 	<ul style="list-style-type: none"> • As above 	

Suggested Contingency measures					
Condition	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset)	Shallow Black/ Red Soils	Groundnut	Groundnut (JL-286/JL-24/Phue unnati, phule bharti) + pigeonpea (Vipula) (6:2),	<ul style="list-style-type: none"> Two intercultivations 20 and 40 DAS Application of gypsum at the time of 50% flowering @ 250 kg/ha 	Seed source : <ul style="list-style-type: none"> Central campus MPKV, Rahuri, ARS, Mohol ZARS, Solapur NSC MSSC NRCS, Solapur MAU, Parbhani
			Pearlmillet (Adishakti, Dhanshakti, Shanti) + pigeonpea (Vipula) (2:1)	<ul style="list-style-type: none"> Basal application of 25 kg K₂O per ha for pearlmillet, Two intercultivations 30 and 45 DAS As above 	
Delay by 4 weeks July 2 nd week 28MW	Medium deep black soils	Pearlmillet	Pearlmillet (Adishakti, Dhanshakti, Shanti) or Pearlmillet (Shanti) + pigeonpea (Vipula) (2:1)	<ul style="list-style-type: none"> As above 	
		Pigeonpea	Pigeonpea (BDN-708) or Pearlmillet (Adishakti, Dhanshakti, Shanti) + pigeonpea (BDN-708) (2:1)	<ul style="list-style-type: none"> Application of 25 kg K₂O per ha for pearlmillet Opening of conservation furrows in between two rows of sole pigeonpea for water / moisture conservation at 30 DAS, Opening of conservation furrows after harvest of pearlmillet in case of pearlmillet + pigeonpea intercropping 	
	Deep Black Soils	Sunflower	Sunflower (SS-56 / Bhanu/ Phule Bhaskar), Sunflower (SS-56 / Bhanu/Phule Bhaskar) + pigeonpea (Vipula / BDN-708) (2:1)	<ul style="list-style-type: none"> Hoing at 30 DAS, Opening of conservation furrows in between two rows of sole sunflower for water / moisture conservation at 30 DAS Opening of conservation furrows after harvest of sunflower in case of sunflower + pigeonpea intercropping 	
		Sorghum	Fodder Sorghum (Phule Amruta / MP Chari / CSV-21F)	<ul style="list-style-type: none"> Application of 20: 20 N:P₂O₅ kg/ha as basal and remaining 20 kg N per ha at 30 DAS with sufficient soil moisture Take up soil and water conservation practices (like compartmental bunding, ridges furrow, etc.) for <i>rabi</i> crops 	

Suggested Contingency measures					
Condition	Major Farming situation	Normal Crop / Cropping system	Change in crop / cropping system including variety	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset) Delay by 6 weeks (July 4 th week) 30MW	Shallow Black /Red Soils	Groundnut	Pearlmillet ((Adishakti, Dhanshakti, Shanti / Shanti / Shraddha / Saburi)	<ul style="list-style-type: none"> Basal application of 25 kg K₂O per ha for pearlmillet Two intercultivations 30 and 45 DAS 	Seed source : <ul style="list-style-type: none"> Central campus MPKV, Rahuri, ARS, Mohol ZARS, Solapur NSC MSSC NRCS, Solapur MAU, Parbhani
		Pearlmillet	As above	<ul style="list-style-type: none"> As above 	
	Medium deep black soils	Pigeonpea	Sunflower (SS-56 / Bhanu/Phule Bhaskar)	<ul style="list-style-type: none"> Hoeing at 30 DAS Opening of conservation furrows in between two rows of sole sunflower for water / moisture 	As above
Deep Black Soils		Soybean	As above	As above	As above
		Sorghum	Fodder Sorghum (Phule Amruta / MP Chari / CSV-21F)	<ul style="list-style-type: none"> Application of 20: 20 N:P₂O₅ kg/ha as basal and remaining 20 kg N per ha at 30 DAS with sufficient soil moisture 	
		<i>Kharif</i> fallow	--	<ul style="list-style-type: none"> Take up soil and water conservation practices (like compartmental bunding, ridges furrow, etc.) for <i>rabi</i> crops 	

Suggested Contingency measures		
Condition	Major Farming situation	Normal Crop/cropping system
Early season drought (delayed onset) Delay by 8 weeks August 2 nd week		
		Not Applicable for this district

Condition	Suggested Contingency measures				Remarks on Implementation
	Major Farming situation	Normal Crop/cropping system	Crop management	Soil nutrient & moisture conservation measures	
Early season drought (Normal onset) Normal onset followed by 15-20 days dry spell after sowing leading to poor germination/crop stand etc.	Shallow Black/Red Soils	Groundnut	--	Weeding and Hoeing	Seed source : <ul style="list-style-type: none"> • Central campus MPKV, Rahuri, • ARS, Mohol • ZARS, Solapur • NSC • MSSC • NRCS, Solapur • MAU, Parbhani
		Peartmillet	--	As above	
	Medium deep black soils	Pigeonpea	Gap Filling with seed priming	<ul style="list-style-type: none"> • Spray 2% urea or DAP • Hoeing/weeding 	
		Soybean	In case of less than 30 % germination take up resowing with wider spacing of 45 cm with sufficient soil moisture.	<ul style="list-style-type: none"> • Hoeing/weeding 	
	Deep Black Soils	<i>Kharif</i> fallow	Resowing with sufficient soil moisture.	<ul style="list-style-type: none"> • Opening of conservation furrows • Protective irrigation • Hoeing and weeding <p>Take up soil and water conservation practices (like compartmental bunding, ridges furrow, etc.) for <i>rabi</i> crops</p>	

Suggested Contingency measures					
Condition	Major Farming situation	Normal Crop/cropping system	Crop management	Soil nutrient & moisture conservation measures	Remarks on Implementation
Mid season drought (long dry spell, consecutive 2 weeks rainless (>2.5 mm) period)	Shallow Black /Red Soils	Groundnut	Give protective irrigation	<ul style="list-style-type: none"> • Hoeing/Weeding • Use of 8 % kaolin spray • 2 % urea spray, • As above 	
		Pearlmillet	Give protective irrigation		
At vegetative stage	Medium deep black soils	Pigeonpea	Protective irrigation and thinning	<ul style="list-style-type: none"> • Hoeing/Weeding • Use of 8 % kaolin spray • 2 % urea spray, • Opening of conservation furrows in between two rows of pigeonpea 	
		Soybean	Protective irrigation	<ul style="list-style-type: none"> • Use of 8 % kaolin spray • 2 % urea spray, • Hoeing and weeding 	
		Sorghum	Protective irrigation	<ul style="list-style-type: none"> • Use of anti transpirants @ 8 % kaolin, • Postpone N dose, • Hoeing and weeding • Thinning of every third row and apply as mulch 	
		Deep Black Soils	<i>Kharif</i> fallow	--	

Suggested Contingency measures					
Condition	Major Farming situation	Normal Crop/cropping system	Crop management	Soil nutrient & moisture conservation measures	Remarks on Implementation
Mid season drought (long dry spell)	Shallow Black/Red Soils	Groundnut	Protective irrigation,	Use of anti transpirants @ 8 % kaolin, Mulching	
		Pearlmillet	As above	<ul style="list-style-type: none"> • Use of 8 % kaolin spray • 2 % urea spray, 	
At flowering/ fruiting stage	Medium deep black soils	Pigeonpea	As above	<ul style="list-style-type: none"> • Hoeing/Weeding • Use of 8 % kaolin spray • 2 % urea spray, • Opening of conservation furrows in between two rows of pigeonpea 	
		Soybean	As above	---	
	Sorghum	As above	As above		
	Deep Black Soils	-	Take up soil and water conservation practices (like compartmental bunding, ridges furrow, etc.) for <i>rabi</i> crops		

Suggested Contingency measures					
Condition	Major Farming situation	Normal Crop/cropping system	Crop management	Rabi Crop planning	Remarks on Implementation
Terminal drought (Early withdrawal of monsoon)	Shallow Black/Red Soils	Groundnut	Protective irrigation or harvest at physiological maturity	No rabi crop	
		Pearlmillet	Protective irrigation, In case of poor grain filling harvest for fodder	No rabi crop	
	Medium deep black soils	Pigeonpea	Protective irrigation	No rabi crop	
		Soybean	As above	Chickpea (Vijay / Digvijay) / Safflower (Bhima) / Sunflower (SS-56 / Bhanu)	
		Sorghum	Protective irrigation, In case of poor grain filling harvest for fodder	Chickpea (Vijay / Digvijay) / Safflower (Bhima) / Sunflower (SS-56 / Bhanu)	
	Deep Black Soils	Kharif fallow	Adopt soil moisture conservation measures like ridges and furrows in kharif	Rabi sorghum (M-35.1/ Phule Vasudha / Phule Anuradha / Phule Chitra / CSV-18 / Phule Yashoda / PKV Kranti) / Chickpea (Vijay / Digvijay) / Safflower (Bhima) / Sunflower (SS-56 / Bhanu)	

2.1.2 Irrigated situation

2.1.2 Drought - Irrigated situation

Condition	Major Farming situation	Normal Crop/ cropping system	Change in crop/ cropping system	Suggested Contingency measures		Remarks on Implementation			
				Agronomic measures	Remarks on Implementation				
Delayed release of water in canals due to low rainfall	<i>Kharif</i> and <i>rabi</i> cropping under canal irrigation	Sugarcane	No change	Paired row planting Alternate furrow irrigation from available sources Mulching					
		Soybean	Short duration varieties viz., JS-9305, JS 9560	Wider row spacing of 45 cm, give one supplemental irrigation at flowering stage					
		Wheat	Trimbak, Tapovan	Irrigate at critical stages CRI and flowering stage					
		Turmeric	Salem, Rajapuri, Phule swarupa	Adopt raised bed planting, adopt drip irrigation					
Condition	Major Farming situation	Normal Crop/ cropping system	Change in crop/ cropping system	Suggested Contingency measures		Remarks on Implementation			
				Agronomic measures	Remarks on Implementation				
				Sugarcane	No change		Paired row planting Alternate furrow irrigation from available sources Mulching		
				Soybean	Short duration varieties viz., JS-9305, JS9560		Wider row spacing of 45 cm , give one supplemental irrigation at flowering stage		
Limited release of water in canals due to low rainfall	<i>Kharif</i> and <i>rabi</i> cropping under canal irrigation	Wheat	Trimbak, Tapovan	Irrigate at critical stages CRI and flowering stage					
		Turmeric	Salem, Rajapuri, Phule swarupa	Adopt raised bed planting, adopt drip irrigation					

Condition	Major Farming situation	Normal Crop/cropping system	Change in crop/ cropping system	Suggested Contingency measures	
				Agronomic measures	Remarks on Implementation
Non release of water in canals under delayed onset of monsoon in catchment	<i>Kharif</i> and <i>rabi</i> cropping under canal irrigation	Sugarcane	Pigeonpea, Sunflower, Chickpea, Sorghum	Wider row spacing of 45 cm , give one supplemental irrigation at flowering stage from available sources	
		Soybean	Short duration varieties viz., JS-9305, JS 9560	Wider row spacing of 45 cm , give one supplemental irrigation at flowering stage	
		Wheat	Chickpea (Digvijay, Vijay) Safflower (Bhima)	Irrigate at critical stages CRI and flowering stage	
		Turmeric	Soybean, Short duration varieties viz., JS-9305, JS9560 Chikpea (Vijay, Digvijay)	Wider row spacing of 45 cm , give one supplemental irrigation at flowering stage	
Condition	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Suggested Contingency measures	
Lack of inflows into tanks due to insufficient /delayed onset of monsoon	<i>Kharif</i> and <i>rabi</i> cropping under lift irrigation	Sugarcane	No change	Paired row planting	
		Soybean	Short duration varieties viz., JS-9305, JS 9560	Wider row spacing of 45 cm , give one supplemental irrigation at flowering stage	
		Wheat	Trimbak, Tapovan	Irrigate at critical stages CRI and flowering stage	
		Turmeric	Salem, Rajapuri, Phule swarupa	Adopt raised bed planting, adopt drip irrigation	
				Not applicable	

Condition	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Suggested Contingency measures	
				Agronomic measures	Remarks on Implementation
Insufficient groundwater recharge due to low rainfall	Bore well / Open dug well Irrigated situation	Grapes	--	Mulching around tree basin, adopt drip irrigation, As above	
		Pomegranate	--	As above	
	Tomato	--	Mulching with plastic film		
	Capsicum	--	As above		

2.2 Unusual rains (untimely, unseasonal etc)

Condition	Suggested contingency measure				
Continuous high rainfall in a short span leading to water logging	Vegetative stage	Flowering stage	Crop maturity stage	Post harvest	
Pearlmillet	<ul style="list-style-type: none"> Drain out excess water, Give second dose of N at optimum soil moisture 	<ul style="list-style-type: none"> Drain out excess water, 	<ul style="list-style-type: none"> Harvest at physiological maturity stage 	<ul style="list-style-type: none"> Harvest & dry in drying shade 	
<i>Kharif</i> Sorghum	As above	As above	As above	As above	
Soybean	<ul style="list-style-type: none"> Drain out excess water, 	As above	As above	As above	
Groundnut	As above	As above	As above	As above	
Pigeonpea	As above	As above	As above	As above	
Rabi sorghum	As above	As above	As above	As above	
Horticulture					
Pomegranate	<ul style="list-style-type: none"> Drain out excess water, Staking 	<ul style="list-style-type: none"> Drain out excess water, Staking 	-	<ul style="list-style-type: none"> Immediate harvesting & marketing 	
Grape	As above	As above	As above	As above	
Vegetable crops	As above	As above		As above	

Heavy rainfall with high speed winds in a short span - Not applicable

Outbreak of pests and diseases due to unseasonal rains			
Soybean	<p>Root rot/collar rot- Treat seed with carbendazim + mancozeb (2 g each/kg) or Phule Trichoderma 5 g/kg or Thiram 3g/kg</p> <p>Spodoptera/Hairy caterpillar:/Semilooper Installation of Pheromone traps</p> <ul style="list-style-type: none"> Dust Methyl parathion 2% or Quinolphos 1.5 % or Carbaryl 10% dust @ 20kg /ha. Spraying of Indoxacarb 15.8 EC 6.6 ml or Dichlorvas 76 EC 5.6 ml or Chlorantraniliprol 18.5 SC 2 ml per 10 Ltr of Water 	<p>Rust –</p> <ul style="list-style-type: none"> Early sowing in last week of may Use of disease resistant variety Phule Agrani Spraying of Propiconazole @ 0.1% <p>Spodoptera/Hairy caterpillar: Semilooper Installation of Pheromone traps</p> <ul style="list-style-type: none"> Dust Methyl parathion 2% or Quinolphos 1.5 % @ 20kg /ha. Spraying of Indoxacarb 15.8 EC 6.6 ml or Dichlorvas 76 EC 5.6 ml or Chlorantraniliprol 18.5 SC 2 ml per 10 Ltr Of Water 	--
Pigeonpea	<p>Wilt/Root rot - Treat seed with carbendazim + mancozeb (2 g each/kg) or Phule Trichoderma 5 g/kg.or Thiram 3g/kg. Insect pests</p> <p>Leaf roller : Destruction of rolled leaves Spraying of quinolphos @ 2 ml /L</p> <p>Diseases:</p> <p>Wilt/ Root rot - Treat seed with carbendazim + mancozeb (2 g each/kg) or Phule Trichoderma 5 g/kg.</p> <p>Helicoverpa : Spray 5 % NSE. Spraying of HaNPV and Need base spray of Chlorantraniliprol @ 2 ml per 10 lit of water</p>	<p>Pod borer : Spraying of HaNPV and Need base spray of Chlorantraniliprol @ 2 ml per 10 lit of water</p> <p>Installation of pheromone traps, spraying of chloropyriphos / Qinalphos @2 ml/L</p> <p>-</p> <p>Helicoverpa : Installation of Pheromone traps Spray 5 % NSE followed by HaNPV spray.</p>	-
Chickpea	<p>Diseases:</p> <p>Wilt/ Root rot - Treat seed with carbendazim + mancozeb (2 g each/kg) or Phule Trichoderma 5 g/kg.</p> <p>Helicoverpa : Spray 5 % NSE. Spraying of HaNPV and Need base spray of Chlorantraniliprol @ 2 ml per 10 lit of water</p>	<p>-</p> <p>Helicoverpa : Installation of Pheromone traps Spray 5 % NSE followed by HaNPV spray.</p>	-
Sorghum	<p>Insect pests</p> <p>Shootfly: Installation of fishmeal traps Spraying of Chlorpyriphos 20EC ml /L</p> <p>Stem Borer: Spraying of Quinalphos 1.5 ml /L,</p> <p>Trichocards</p> <p>Aphids/Jassids- Spraying of dimethoate 1 ml/L</p>	<p>-- Diseases</p> <p>Charcoal rot – Mulching</p> <p>--</p> <p>Stem Borer: Spraying of chloropyriphos 2ml /L, Use of trichocards @ 5 /ha</p>	--

Groundnut	Diseases Leaf spot & Rust – Spray Mancozeb 75 WP 0.25 % or Carbendazim 50WP 0.1 %	Diseases Leaf spot & Rust – Spray Mancozeb 75 WP 0.25 % or Carbendazim 50WP 0.1 %	--	Proper drying for control of <i>Aspergillus</i>
	Insect pests Thrips & Jassids: Spraying of Dimethoate 1 ml/L or Methyl demeton 1 ml/L	Leaf Roller: Spraying of Quinolphos 25 EC 2 ml/L	--	--
Sugarcane	Stem Borer and white grub Soil application of 10 G Phorate 20 kg/ha or 20% Chloropyrifos 5 lit through 1000 lit of water through water,	Top shoot borer: Soil application of 10 G Phorate 20 kg/ha or 20% Chloropyrifos 5 lit through 1000 lit of water through water, White wooly aphid: Phorate 10G 15 kg/ha, or spray Methyl dematon 25 EC 1.5 ml/L or Dimethoate 30% 1.5ml/L	--	--
Horticulture	--	--	--	--
Grape	Downy mildew- Spray 0.4 to 1.0 % Bordo mixture or Metalaxyl-mancozeb 0.2 % or Cymoxanil mancozeb 0.2 %. Anthracnose- Spray Mancozeb 75 WP 0.25 % or Carbendazim 50 WP 0.1 %	Downy mildew- Spray 0.4 to 1.0 % BM or Metalaxyl-mancozeb 0.2 % or Cymoxanil mancozeb 0.2 %. Powdery Mildew: Penconazole @ 0.05 to 0.1 % 4 times. First spray 15 day after October pruning & subsequent sprays at interval of 15 days	Botrytis rot- Spray Carbendazim 50 WP 0.1 %	
	Mealy bugs: Use of sticky traps on trunks and girdles and spraying of Dimethoate or Malathion @ 1.5 ml/L	Mealy bugs: Use of sticky traps on trunks and girdles and spraying of Dimethoate or Malathion @ 1.5 ml/L	Mealy bugs- use of sticky traps on either side of berry bunches	-

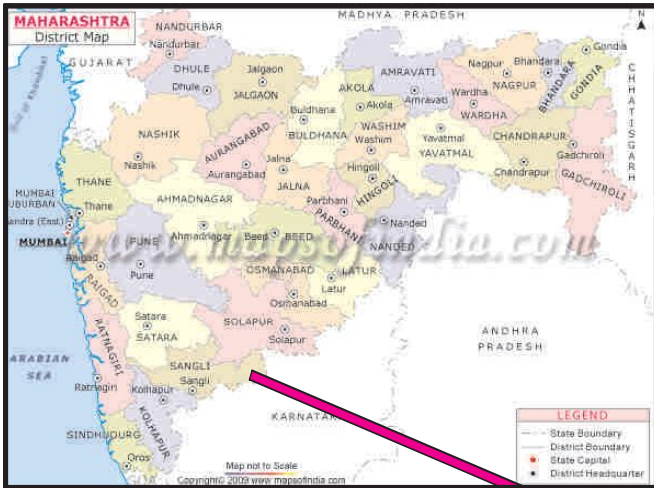
2.3 Floods

Condition	Suggested contingency measures			
	Seedling / nursery stage	Vegetative stage	Reproductive stage	At harvest
Transient water logging/ partial inundation				
Soybean	Resowing Sowing on ridges and furrows	Removal of excess water Spring of 2% urea or 1% Potassium Nitrate	Removal of excess water	Removal of excess water
Sugarcane	As above	As above	As above	As above
Ground nut	As above sowing on BBF	As above	As above	As above
Horticulture				
Grapes	Removal of excess water	Removal of excess water	Removal of excess water	Removal of excess water
Continuous submergence for more than 2 days				
Soybean	Resowing	Prepare for next <i>rabi</i> season		
Ground nut	As above	As above	-	
Sugarcane	Removal of excess water Gap filling	Removal of excess water	Removal of excess water	-
Horticulture				
Grapes	Removal of excess water Provide need based plant protection measures	Removal of excess water Provide need based plant protection measures	Removal of excess water Provide need based plant protection measures	Removal of excess water Provide need based plant protection measures

2.4 Extreme events: Heat wave/Cold wave/Frost/Hailstorm/Cyclone : Heat wave and cold wave are rare in appearance and do not warrant any contingency measures

2.5 Contingent strategies for Livestock, Poultry & Fisheries : Separate Chapter given (Animal Component for All District)

**Annexure-I
Location Map**



**Annexure-II
Soil Map of Sangli District**

