

KVK District Profile



KALYANI GORAKSHAN TRUST'S KRUSHI VIGYAN KENDRA, SATARA-I

A/P-KALAWADE. TAL-KARAD. DIST-SATARA.



Satara district is located in the western part of Maharashtra. It is bound by Pune district to the north, Solapur district to the east, Sangli district to the south and Ratnagiri district to the west. Raigad district lies to its north-west. The geographical area of Satara district is 10,480 Sq. Km. which is about 3.4 per cent of the state's total geographical area. Satara district is situated in the river basins of Bhima and Krishna. Satara, Panchgani, Mahabaleshwar, Karad, Wai, Rahimatpur, Mhaswad, Phaltan and, Malakapur are the Statutory towns of Satara District. Historically Satara was the capital of the Maratha kingdom, land of great warriors, saints and great personalities namely Rani Laxmibai, Krantisinha Nana Patil (Patri sarakar), Savitribai Phule and Karmaveer Bhaurao Patil. This land has rich heritage. Mahabaleshwar, one of the most beautiful hill stations of India, is located in this very district. The physical settings of Satara shows a contrast of immense dimensions and reveals a variety of landscapes influenced by relief, climate and vegetation. towns of Satara District. Historically Satara was the capital of the Maratha kingdom, land of great warriors, saints and great personalities namely Rani Laxmibai, Krantisinha Nana Patil (Patri sarakar), Savitribai Phule and Karmaveer Bhaurao Patil. This land has rich heritage. Mahabaleshwar, one of the most beautiful hill stations of India, is located in this very district. The physical settings of Satara shows a contrast of immense dimensions and reveals a variety of landscapes influenced by relief, climate and vegetation.



Google Map-from Karad to KVK

2. DETAILS OF DISTRICT / JURISDICTION AREA OF

Sr No.	Tahsils under KVK	No of Villages
1	Karad	216
2	Patan	343
3	Koregaon	138
4	Man	104
5	Khatav	139
	Total	940

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise	
1	Mahabaleshwar	Agriculture + Horticulture
2	Wai	Sugarcane based (Agriculture) + Vegetable based (Horticulture) + Dairy
3	Khandala	Dry land Farming
4	Phaltan	Agriculture + Dairy + Semi dry land
5	Man	Dry land Farming
6	Khatav	Dry land Farming
7	Koregaon	Agriculture + Horticulture + Dairy
8	Satara	Sugarcane based Agriculture + Horticulture + Dairy
9	Javali	Agriculture + Horticulture + Dairy
10	Patan	Agriculture + Horticulture + Dairy
11	Karad	Sugarcane based (Agriculture) + Dairy + Horticulture

2.2. Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No.	Agro-climatic Zone (Planning Commission)	Characteristics
1	WESTERN GHAT ZONE	Mahabaleshwar and western part of Javali, Patan and Wai lies in this zone. The height is near about 1500 – 1900 meter from sea level. Soils are majorly red lateritic with very shallow soil depth.
2	SUB MOUNTAIN ZONE	Western part of Satara, Patan, Javali and Wai Tahsil are forms this zone. This zone receives 1500 to 2500 mm annual rainfall. Soil type in this zone is light, medium type & well drained.
3	WESTERN MAHARASHTRA PLAIN ZONE	Eastern part of Satara & Wai, Western part of Karad & Koregaon lies in this zone. The Krishna and Koyna river flows in this zone. Black fertile soils.
4	WESTERN MAHARASHTRA SCARCITY ZONE	This zone consists of Khatav, Man, Phaltan, and Khandala & Koregaon Tahsil. This zone receives 500 to 600 mm annual rainfall. Soils majorly medium to deep black cotton soils.

a) Topography

S. No.	Agro ecological situation	Characteristics
1	MOUNTAIN ZONE	Mahabaleshwar and western part of Javali, Patan and Wai lies in this zone. The height is near about 1500 – 1900 meter from sea

		level. Undulating topography with light red soils and annual rainfall ranges from 3000-5000 mm. The Paddy, Nagali & Maize is the major crop of region.
2	SUB MOUNTAIN ZONE	Western part of Satara, Patan, Javali and Wai Tahsil are forms this zone. This zone receives 1500 to 2500 mm annual rainfall. Soil type in this zone is light type & well drained. Paddy, Jowar, groundnut, Sugarcane, and vegetables are the major crops of this zone.
3	PLAIN ZONE	Eastern part of Satara & Wai, Western part of Karad & Koregaon lies in this zone. The Krishna and Koyna river flows in this zone. Black fertile soils and 650 mm to 1000 mm annual rainfall are the characteristics of this zone. The maximum temperature is up to 400c in Apr-May and average minimum temperature is 90c in the month of Dec-Jan. Potential area in Kharif season. Black soils to medium light soils with rainfall 650-1000mm. Sugarcane, groundnut, soybean, sorghum, rajma, turmeric ginger and paddy are major Kharif crop and sorghum, wheat & gram are rabi crops. Vegetable crops are also potential crops of this zone
4	SCARCITY ZONE (DPEP)	This zone consists of Khatav, Man, Phaltan, and Khandala & Koregaon Tahsil. This zone receives 500 to 600 mm annual rainfall. Very low rainfall and hot arid temp is typical characteristic. Rainfall observed in two spell mainly in June –July and Sept. Average Maximum temp up to 410c & min temp 14-150c. Evaporation rate 1800mm per year in this area. Soils of this zone are medium to light. Pearl Millet, sorghum and pulses are major Kharif crop in this region while sorghum, gram & wheat are rabi crops.
5	ANNUAL IRRIGATED	South eastern part of Phaltan, Middle arts of Karad along with Krishna Koyna river, Central part of Satara & Wai. Black fertile soils and 650 mm to 1000 mm annual rainfall are the characteristics of this zone. Sugarcane, groundnut, soybean and turmeric are major Kharif crop and wheat, summer groundnut & gram are rabi crops. Vegetable crops are also potential crops of this zone

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black to Deep black	These are found along the belts of the Krishna and Koyna rivers. They are brownish to dark brown in colour. The chemical analysis of the soil shows that the soil is rich in lime. At certain places like Phaltan, a clear band of lime is found at a depth of a few feet in the soil. The nitrogen content of the soil is fairly good and the organic matter content of the soil is high. The soil is rich in clay content and colloidal complex is fully saturated with exchangeable bases. This is due to dry spell of monsoon. Medium black soil is also to be found in Koregaon, western part of Vaduj, Khandala Taluka and in the northern part of the Phaltan Taluka along the Nira River. The soils in the eastern part of the taluka are deep to medium black. Crops like groundnut, wheat, Sorghum (rabi) and, at certain places, where irrigation facilities are available, sugar-cane and turmeric are taken.	42800
2	Lighter soils	Light soil of the district is locally called as malran or murum mal and brown in colour. These are hard and rocky and are commonly found in the planes on the eastern side. These are also to be found on the slopes of the hillocks situated in the eastern side. These soils are well-drained, light in nature and sandy loam in texture. They are rich in lime but shallow in depth. The chemical analysis of the soil indicates that they are deficient in fertility constituents like nitrogen, organic carbon and phosphorus. However, the potash contents of the soils are fairly high. The clay complex of the soils is poor in exchangeable bases. Therefore, the soils in this category yield good produce only if bulky	574000

		manures and heavy fertilizers are applied and proper irrigation is provided. At certain places, where sufficient water is available, paddy crop is also taken. However, the soil is better suited for Pearl Millet.	
3	Lateritic soils	Lateritic soils are red in colour and are mainly found in Mahabaleshwar hills and along the whole mountain range comprising the entire Koyna valley. On account of the red colour of the soil, they are locally known as tambad mati. At certain places blending of the black soils with laterite or red soils has taken place. On account of heavy rainfall in this region, these soils are subjected to heavy leaching and a high degree of erosion. The reason for the red colour of the soil is the high content of Iron Oxides in the sesqui-oxides of these soils. The depth of the soil varies from 1' to 10'. The chemical analysis of these soils indicates that they are rich in clay and clay-loam in texture. They are rich in nitrogen but poor in organic matter. The main crops taken on them consist of the rice and hill millets like ragi, vari and nachni. At certain places, rice is taken by adopting the kumri cultivation. At places with high altitudes, especially around Mahabaleshwar, fruits like strawberries, goose-berries which require cold climate are also grown.	425400

2.4. Details of Operational area / Villages

Taluka / Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Patan	Bhairewadi (2020)	Paddy, Finger millet, wheat, Mango, Dairy, Poultry	Low productivity of cost and animals Low yields of paddy finger millet due to use of imbalance nutrients lack of knowledge about Plant Protection Very limited irrigation water for rabi only	Integrated nutrient management in paddy and finger millet Integrated pest management Livestock and poultry management empowerment of rural youth and women
Karad	Rethare kh (2018)	Major crops: Groundnut, Paddy, Sorghum, Soybean, Wheat, Gram, Mango Enterprises: Dairy, Goatary, Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients. Low yield in Groundnut due to use of local variety and disease Low quality of local mango Unemployment	Improving the productivity of Paddy, Groundnut, Wheat Jowar and Red gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram and Rice Livestock and Poultry management Empowerment of Rural Women & Youth, Dissemination of new improved Varieties and technologies

Karad	Nigadi (2018)	Major crops: Soybean, Groundnut, Sorghum, Sugarcane, Wheat, Gram, Ginger, Turmeric Enterprises: Dairy Goatary Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients. Low yield in Groundnut & Soybean due to use of local variety and disease Low yield of Rabi sorghum due use of local variety Water scarcity Unemployment	Improving the productivity of Soybean, Groundnut, Wheat Jowar and gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram & Pigeon pea Livestock and Poultry management Soil and water conservation practices Empowerment of Rural Women & Youth, Dissemination of new improved technologies
Khatav	Kumthe Nagache (2019)	Major crops: Maize, Onion, Sorghum, Wheat, Gram, Pea Enterprises: Dairy Goatary Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients in maize. Low yield of Rabi sorghum due use of local variety Water scarcity Unemployment	Improving the productivity of Maize, Wheat Jowar and gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram & Pigeon pea Livestock and Poultry management Soil and water conservation practices Empowerment of Rural Women & Youth, Dissemination of new improved technologies
Karad	Mundhe (2020)	Major crops: Sugarcane, Soybean, Groundnut, Wheat, Paddy & Gram, Enterprises: Dairy Goatary Poultry	Low productivity of crops, animal, Low yield in soybean & wheat due to Rust and local variety Low yield of sugarcane due to close planting, imbalance fertilizer use & poor drainage. Low yield in Gram due to Pod borer Poor drainage, Unemployment	Improving the productivity of Sugarcane, Soybean, Paddy, Gram, Wheat, Gr. nut Introduce New varieties of Soybean, Wheat and Rabi Jowar. INM in sugarcane Improve soil drainage Livestock and Poultry management Empowerment of Rural Women, Youth, Dissemination of new improved technologies

2.5. Priority thrust areas:

Crop/ Enterprise	Thrust area
SUGARCANE	Use of Integrated Nutrient Management – Trash management in Ratoon, Use of NPK briquette & fertilizers as per STCR
	Use of Biofertilizer& Green Manuring crops (Organic inputs)
	Introduce wide row and single eye bud planting in sugarcane (Nursery management and ICM)
	Use of Drip & Long rows method of irrigation (Micro irrigation)
	Create awareness for maintenance of good quality planting material on its own farm and promote low cost sugarcane nursery techniques (Farm mechanization)
	Create awareness about Pest and Disease management especially with IPM technology (IPDM)
SOYBEAN	Introduction of new moderately rust resistant KDS-726 (Varietal evaluate)
	Create awareness for use of recommended Bio fertilizer for seed treatment, Use of Balance fertilizers & also use of spray grade fertilizer (INM)
	Use of growth retardant like Lihocine in heavy black soils (ICM)
	IPM of Spodoptera leutera and other pests and diseases (IPM)
GROUNDNUT	Introduction of new varieties like KDG-128, JL – 286, & JL-501 (Varietal evaluate)
	Use of BBF method of planting (ICM)
	Use of Integrated Nutrient Management in Groundnut (INM)

	Control of Tikka, Rust and other diseases in Kharif Groundnut by following IDM technology (IPDM)
RICE	Use of Four Fold Rice planting method (Resource conservation technology)
	Use of Integrated Nutrient Management by promoting use of Urea DAP & NPK Briquette. (IPM)
	Proper management of water & use of IPM technique control of disease pest. (Water management)
WHEAT	Use of correct planting method with recommended seed rate and timely sowing.(ICM)
	Use of Integrated Nutrient Management in Wheat. (INM)
	Introduction of new rust resistant and high yielding varieties like Trimbak, Samadhan, MACS-6222 (Varietal evaluate)
	Biological control Wheat aphids and rust management.(Biological control of pest and disease)
RABI SORGHUM	Introduction of new varieties as per soil type like PhuleVasudha, PhuleAnuradha, PhuleRevati, PhuleSuchitra etc. (Varietal evaluate)
	Create awareness for in situ water conservation & provide two protective irrigations. Zero tillage sowing for water conservation and more yield. (Resource conservation technology)
	Use of Integrated Nutrient Management in Rabi Jowar (INM)
	Management of Shoot fly and smut diseases.(IPM)
GRAM	Use of new varieties like Digvijay& Vijay (Varietal evaluate)
	IPM in Gram for control of pod borer and wilt (IPM)
	Change the existing method of planting with ridges & furrow and BBF sowing, use of Sprinkler irrigation method. Create awareness for proper water management in Gram (ICM)
	Use of Integrated Nutrient Management, use potash with FYM and foliar nutrient application (INM)
Redgram	Introduction of new high yielding improved varieties like Vipula (Varietal evaluate)
	Use of Integrated Pest Management and promote Red gram intercropping in other crops (IPM)
BANANA	INM, Foliar spray with PDH and 00:00:50 and Bunch feeding technique for increase bunch weight, Proper Fertigation technique, Management of pest and diseases, Banana Marketing etc (ICM)
Mango	INM, ICM, IPM (Rejuvenation of old orchid)
Potato & PEA	Seed treatment, INM (IPDM)
Poultry, Dairy and goatery	Impart the knowledge regarding Dairy &Goatary farming, introduction of Giriraja and vanraja poultry breeds in backyard and supply of day old chicks. (Poultry management, goat and sheet management)
GENERAL	Improve drainage by use of Mole plough (Reclaimaty of problematic solution)
	Reclamation of Problematic soils. Balance use of Fertilizers on the basis of soil test report. Judicial use of water for Irrigation
	Recycling of Organic Farm Waste & Vermicompost production (Vermicompost production)
	Use of different weedicides & cultural practices for weed control and to overcome labour shortage problem (INM)
	Adoption of recommended crop rotation practices (IFS), crops diversification
	Improve quality and quantity production in greenhouse
	Integrated pest management especially Biological control (IPM)
ENTERPRISE	Promote use of Zero tillage and BBF sowing, Groundnut Decorticator, Groundnut stripper, twin wheel hoe, vaibhav sickle, Laxmi sickle, Okra mitten, and maize sheller like Location specific Drudgery Reduction technology.
	Improve the self employment by imparting skills through vocational training.

3. TECHNICAL ACHIEVEMENTS

Operational areas details during 2023

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	Sugarcane	Faulty inter culturing operations in ratoon sugarcane. No sett treatment. Lack of knowledge of INM, IPM		Nigadi (Karad)	FLD, training on zero tillage ratoon management
		Low yield due to improper nutrient management Loss of organic matter Less nutrient use efficiency Low yield		Mundhe (Karad)	OFT- 7ssessment on sugarcane
2	Gram	lack of awareness about Varieties, INM, IPM, INM and latest technologies		Targaon (Koregaon)	FLD on ICM Package, Training on Improved production in Gram
		1. Heavy attack of pod borer <i>Helicoverpa armigera</i> and Gram wilt caused by <i>Fusarium oxysporum</i> f.sp. <i>ciceri</i> 2.. Unawareness about the IPM practices		Mundhe (Karad)	Training programme on IPM and FLD on Trichoderma seed treatment for wilt management
		Storage losses because of stored grain pests			Training on Stored grain pest management
		1.Imbalance use of fertilizer 2.Less tillering and improper grain filling 3.Low use of fertilizers.		Nigadi (Karad)	FLD on Nutient Mangement in Gram

		4. Unawareness of irrigation and spraying.			
3	Wheat	Shattering, small grain size and low yield. Problems observes in existing Trimbak variety		Vihe (Nigadi)	OFT Demonstration of P. Samadhan, training on GAP
		Infestation of aphids, jassids and Pink stem borer in early stage of crop growth		Tondoshi (Patan)	FLD and training for effective management of Wheat aphids, jassids and stem borer
		1.Imbalance use of fertilizer 2.Less tillering and improper grain filling 3.Low use of fertilizers.		Nigadi (Karad)	FLD on Nutient Mangement in Wheat
4	Groundnut	Low plant population & poor drainage, aeration and land preparation and use of more N fertilizers		Mundhe (Karad)	FLD and Training on BBF Method of planting and INM
		1. Incidence of Collar rot, stem rot Tikka and Rust diseases in Kharif Groundnut 2. Lack of Knowledge and management practices 3. Lack of seed treatment			OFT Assessment on Seed treatment in groundnut Training on IDM in Kharif Groundnut
5	Soybean	lack of awareness about Varieties, INM, IPM, and latest technologies		Vihe (Patan)	OFT on Phule Sangam, Cluster FLD on ICM Package
6	Nagli (Finger Millet)	1. Incidence of blast. 2. Lack of Knowledge of symptoms and management of the diseases..		Bhairewadi (Patan)	FLD and Training
		Nutrient deficiency and nutrient loss leads to low yield		Bhairewadi (Patan)	OFT Use of NPK Briquettes

7	Onion	Incidence of Thrips and Blotch		Khatav	FLD and Training
		Less use of N fertilizers Low yield due to imbalance nutrient management		Kumthe (khatav)	FLD on Onion STCR
8	Paddy	Use of local variety. Imbalance use of fertilizer		Dhoroshi (Patan)	OFT on improved variety Training and FLD on Four Fold Technology and INM
		Losses in yield due to incidence of caseworm		Bhairewadi (Patan)	OFT assessment and training
		Low yield due to improper method of planting, use of old varieties and improper water management & loss of nutrient by leaching		Bahirewadi (patan)	Training on four fold method of rice planting, & FLDs on INM with Briquette
9	Sorghum	Lack of Knowledge about new varieties, no in-situ moisture conservation, imbalance fertilizer and close spacing		Nigadi (Karad)	OFT on intercropping of Sorghum + Bengal gram (3:3 row) Training on Rabi crop production in Sorghum FLD Demonstration of ICM package, Training on Sorghum production technology
10	Maize	Low yield due to improper nutrient management. Informal and uneven size and shape of cob.		Surupkhanwadi (Man)	OFT- Assesment on Maize and training
11	Ginger	1. Lack of knowledge about IPM		Nigadi (karad0	OFT assessment and Training on IPM of white grub
12	Okra	1. Lack of knowledge of new virus resistant		Mhopre (Karad)	OFT assessment and

		variety			training
13	Tomato	Less use of nitrogenous fertilizers and lack of knowledge of balanced use of fertilizers		Kimthe (khatav)	OFT assessment on STCR
14	Poultry	Rearing of deshi poultry birds which have low egg production, less weight gain than improved poultry bird		Bhairewadi (Patan)	FLD, training
15	Dairy cows	Use of local and low quality feed and fodder. Poor health and low productivity		Rethare (Karad)	FLD, training, Method Demonstration
16	Goat	Lack of management		Nigadi (Karad)	Training
17	Feed and fodder technology	Unavailability of green fodder all round the year			Training