



## Mahatma Phule Krishi Vidyapeeth, Rahuri

### Agricultural Research Station, Niphad State Non Plan Scheme No. 187

1.	<b>Year of Start</b>	: 1932
2.	<b>Contact Details</b>	:
	<b>Postal Address</b>	: Wheat Specialist, Agricultural Research Station, Niphad Dist- Nashik 422 303 Maharashtra, India
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3.	<b>Objectives/Mandates</b>	: <b>Crop Improvement</b> i) Organize, coordinate and monitor multi-locational and multidisciplinary research for developing superior wheat varieties having better quality and tolerance to biotic and abiotic stresses for Rainfed, Restricted Irrigation, Timely sown Irrigated conditions and bread wheat varieties for late sown irrigated condition. ii) Collect, evaluate, catalogue, maintain and use working germplasm collections of wheat with an aim to identify suitable donors for yield components, biotic and abiotic stresses and quality traits. iii) Undertake strategic research for a major advance in genetic yield potential, quality, and durable disease resistance through the utilization of genetic resources and genetic enhancement. iv) Mobilize genetic diversity from National and International sources for developing new genetic stocks. v) Coordinate and organize nucleus and breeder seed production. <b>Crop Production</b> i) To develop new fertilizer doses for irrigated and rainfed wheat crop. ii) To study the different cultivation practices for wheat and wheat based cropping systems. iii) To study the organic farming and INM practices in wheat. iv) To study constraints between farmers and scientist regarding wheat cultivation and to conduct FLD'S of new varieties on farmers' fields. v) To disseminate improved technology of wheat among farmers. <b>Crop Protection</b> i) To screen different genotypes against different diseases and pests under co-ordinated and state programme. ii) To undertake studies on effects of environmental factors on incidence of diseases and pests on wheat varieties.

4.	<b>Infrastructure</b> :				
	<b>Land</b> :	19.99 ha			
	<b>Laboratories</b> :	Soil Science Laboratory & Plant Pathology Laboratory			
	<b>Advanced facilities</b> :	Meteorological observatory (Auto Weather Station) Plant diseases diagnosis laboratory, Seed processing unit, farm mechanization equipments			
5.	<b>Human Resource</b> :				
	<b>Technical Staff</b> :				
		SN	Designation	Discipline	Remarks
		1	Professor	Agril Botany 01	Filled
		2	Professor	Plant Pathology	Filled
		3	Professor	Agronomy 01	Vacant
		4	Professor	Plant Physiology 01	Vacant
	<b>Non-Technical Staff</b> :	Nil			
6.	<b>Research</b> :	Varieties : 18			
	<b>Achievements</b> :	Recommendations : 10			
7.	<b>Ongoing Research</b> :	<b>A) Wheat Breeding</b> i) State Multilocation Trials (TS & LS) ii) University Multilocation Trials (RI, TS & LS) iii) Station trials viz. RRT, PRT (RI, TS & LS) iv) Screening of wheat genotypes for high temperature tolerance <b>B) Agronomy</b> i) Effect of weed control treatments on weeds and yield of wheat and its effect on succeeding soybean crop ii) Effect of planting geometry and seeds per hill on production potential and economics of wheat under irrigated conditions iii) Organic farming in wheat <b>C) Soil Science &amp; Agril Chemistry</b> i) Assessing Effect of Micronutrient Foliar Sprays on Wheat ii) Management of lodging in wheat by Plant Growth Regulators iii) Compensation of major nutrients through foliar nutrition in wheat under limited irrigation iv) Response of NPK foliar sprays on wheat under water stress condition v) Standardization of fertilizer dose for newly released wheat variety vi) Effect of zinc application on yield and quality of wheat vii) Enhancing iron content in bread wheat ( <i>Triticum aestivum</i> ) <b>D) Plant Pathology</b> i) Determination of resistance in wheat genotypes developed at ARS, Niphad promoted in co-ordinated trials against leaf blight disease under artificial epiphytotic conditions. ii) Determination of resistance in wheat genotypes developed at ARS, Niphad and promoted in co-ordinated trials against foot rot disease under artificial epiphytotic conditions. iii) Monitoring occurrence of major diseases of wheat at different sowing dates iv) Evaluation of fungicides for management of leaf rust disease in wheat (filar trial) v) Evaluation of fungicides for management of leaf blight disease in wheat (filar trial)			

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|  | <p>vi) Studies on formulation of consortia of <i>Azotobacter</i>, PSB and potash mobilizing bacteria in wheat crop. (BNF Scheme, Pune).</p> |
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**E) Entomology**

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|  | <p>i) Screening of early generation breeding materials (MLT, PRT and RRT)</p> <p>ii) Screening of SMVT- TS and LS trials of wheat pests</p> <p>iii) Development of IPM module for management of insect-pests on wheat.</p> <p>iv) Development of weather based forewarning module against the outbreak of important pests of wheat.</p> <p>v) Survey of pest infesting wheat and their natural enemies.</p> <p>vi) Screening of various wheat entries for foliar wheat aphids, root aphid and shoot fly</p> |
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