



## Mahatma Phule Krishi Vidyapeeth, Rahuri

### Regional Wheat Rust Research Station, Mahabaleshwar

	<b>Name of the Research Scheme</b> : All India Co-ordinated Wheat and Barley Improvement Project( AICW&BIP )
1.	<b>Year of start</b> : 1971
2.	<b>Contact Details</b> : <b>Postal Address</b> : Regional Wheat Rust Research Station, Mahabaleshwar Post Box No.15, Pin – 412 806, Dist. Satara <b>Phone No</b> : 02168- 271069 <b>E mail</b> : <a href="mailto:rwrrsm@rediffmail">rwrrsm@rediffmail</a>
3.	<b>Objectives/ Mandates</b> : <ul style="list-style-type: none"><li>● To maintain pathotypes of stem and leaf rusts of wheat</li><li>● To test wheat genotypes received from Director, IIWBR, Karnal and Wheat Breeders from various parts of the country against stem and leaf rusts of wheat and thereby assist in evolving rust resistant wheat varieties</li><li>● Seedling resistance test against individual pathotypes of stem and leaf rusts of wheat</li><li>● To undertake race specific adult plant resistance test against selective prevalent stem rust pathotypes for genotypes received from ICAR, under glasshouse conditions</li><li>● To multiply and supply viable inoculum of stem and leaf rusts to research workers and centers of Peninsular Zone</li></ul>
4.	<b>Infrastructure</b> : <b>Land ( ha)</b> : 3.18 ha of land of Non -Plan 219 is used for AICW & BIP scheme <b>Irrigation facilities</b> : 3 wells of Non Plan 219 is used for AICW & BIP scheme <b>Laboratories</b> : Laboratory of Non Plan 219 is used for AICW & BIP scheme

5.	<b>Human Resource</b> : <b>Technical Staff</b> :	<table border="1"> <thead> <tr> <th>SN</th> <th>Designation</th> <th>Discipline</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Junior Wheat Pathologist</td> <td>Plant Pathology</td> <td>Filled</td> </tr> <tr> <td>2</td> <td>Junior Plant Pathologist</td> <td>Plant Pathology</td> <td>Filled</td> </tr> <tr> <td>3</td> <td>Senior Research Assistant</td> <td>Plant Pathology</td> <td>Filled</td> </tr> <tr> <td>4</td> <td>Senior Research Assistant</td> <td>Plant Pathology</td> <td>Filled</td> </tr> </tbody> </table>	SN	Designation	Discipline	Remarks	1	Junior Wheat Pathologist	Plant Pathology	Filled	2	Junior Plant Pathologist	Plant Pathology	Filled	3	Senior Research Assistant	Plant Pathology	Filled	4	Senior Research Assistant	Plant Pathology	Filled
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6.	<b>Research Achievements</b> : <ol style="list-style-type: none"> <li>Maintained 17 and 25 pathotypes of leaf and stem rusts, respectively</li> <li>Analyzed leaf and stem rust pathotypes from off-season wheat grown at Wellington during <i>Kharif</i> season and also monitored disease intensity of both the rusts in Maharashtra. From the analysis it is seen that the following races are most prevalent in Peninsular Zone since last 15 years: Stem rust: 11, 42, 40A and 117-6 Leaf rust: 12-4, 12-5, 12-7, 77-1, 77-2, 77-5, 77-9, 104A, 104-2, 162 A, 162-1</li> <li>Purified the pathotypes of both the rusts</li> <li>Seedling Resistance Test: Large numbers of wheat genotypes have been evaluated since establishment of this research station against most virulent individual races of both the rusts.</li> <li>Adult Plant Resistance Test: Large numbers of wheat genotypes have been evaluated since establishment of this research station under field conditions against both the rusts. Of these, 4415 genotypes were found resistant to both the rusts.</li> </ol>																					
7.	<b>Ongoing Research</b> : <ol style="list-style-type: none"> <li>Maintenance of pathotypes of leaf and stem rusts under glasshouse conditions.</li> <li>Seedling Resistance Test of AVT and NIVT wheat entries for leaf and stem rusts under glasshouse conditions.</li> <li>Race specific adult plant resistance testing (APRT) of wheat genotypes under glass house conditions.</li> <li>Adult plant resistance test of wheat genotypes against stem and leaf rust under field conditions.</li> <li>Studies on adult plant resistance in AVT genotypes against stem and leaf rusts by using a mathematical tool AUDPC,</li> <li>A. Establishment of Wheat Rust Trap Nursery at various locations for monitoring the incidence of stem and leaf rusts. B. Survey for recording the incidence of stem and leaf rusts of wheat and collection of samples for pathotype analysis.</li> <li>Multiplication and supply of base inoculi of prevalent stem and leaf rust pathotypes to other network centers,</li> </ol>																					

