



## Karjat-184, an early rice variety for Konkan region of Maharashtra state

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### ABSTRACT

The rice variety Karjat-184 was evolved from the cross between T(N)1 and Kolamba 540 using former parent as female through pedigree method of selection. It is early in duration (105-120 days in *Kharif*), dwarf (80-85 cm plant height) with medium slender and translucent kernel. The variety showed 21.50 per cent higher yield over the checks in adaptive trials. It showed excellent milling (75.0 %), head rice recovery (55.6 %) and good cooking qualities. It has been observed moderately resistant to bacterial leaf blight and blast, tolerant to brown plant hopper and white backed plant hopper at endemic sites with an average yield potential of 3.0 to 3.5 t/ha. Therefore, the rice variety Karjat-184 was released for commercial cultivation in Konkan region of Maharashtra state in the year 2009.

**KEY WORDS :** Karjat-184, Early, Yield, Medium slender and resistant

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### INTRODUCTION

Rice (*Oryza sativa* L.) occupies pivotal place in Indian agriculture, as it forms the staple food for more than 70 per cent of the population, providing 20 to 25 per cent of agricultural income. Rice occupies largest area among all food crops in India. Rice is grown on 44.6 million hectares in India, which is largest in the world among all the rice growing countries with annual production around 90 million tonnes. The present production level of 93 million tonnes of rice needs to be increase up to 140 million tonnes by the year 2020 to meet the demand of increasing population and maintain self- sufficiency from the available land, water and human resources.

In Maharashtra rice is the second important crop of the people, which is grown over an area of 14.74 lakh hectares with an annual rice production of 25.97 lakh tones. The average productivity of the state is stable around 1.76 tonnes per ha which is low as compared to other rice growing states. There was a need for fine and early duration rice variety for Konkan region with higher yield and superior grain quality. The Karjat 184 rice variety is popular among the farmers since 1971. This variety was not notified, therefore, it did not come under seed

production chain. Looking in to the heavy demand for seed and popularity of this variety, efforts were made to test this variety in different trials and again released during 2009 for Konkan region of Maharashtra and submitted for notification.

### MATERIALS AND METHODS

A cross was made between T(N)1 and Kolamba 540 using T(N)1 as female parent at Regional Agril. Research Station, Karjat. The selections were made for fine and high yielding progenies from the segregating generations of above cross. Among the several selections in segregating populations of above cross, a promising pure line KJT-184 was further tested in various trials on station, state and national co-ordinated trials at various locations in the state and country during 2002-2007. The culture was screened for resistance to various insect pests and diseases at endemic sites and quality parameters. The yield data of various trials were statistically analyzed according to Panse and Sukhatme (1967). Based on yield data of various trials, superior grain quality, disease and insect pest reactions and stable yield performance at various test locations, Karjat-184 rice variety was released for commercial cultivation in Konkan region of Maharashtra state during the year 2009.

### RESULTS AND DISCUSSION

The yield performance of Karjat-184 (IET-19265) rice variety in various trials conducted during 2002 to 2007

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