

Category	: International Rice Research Conference
Select Theme	: Climate change and environmental sustainability
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Keyword 1	: Climate smart agriculture
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Keyword 3	: Adaptation to climate change
Title of Entry	: A critical analysis of rice production constraints in Telangana State-Way forward
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Select only one type of presentation	: 15 minute oral presentation
Abstract	: Agriculture in Telangana is dominated by rice cultivation, which generates direct or indirect economic livelihood for over 75% of the population. Combined efforts of farmers, rice scientists extension personnel and Government of Telangana have raised the rice productivity from yielded 3278 kg/ha (2012-13) to 3902 kg/ha (2016-17). However, considerable variation was noticed in the profitability of the crop from one district to the other. Production oriented surveys (POS) conducted by Rice Research Centre, PJTSAU, Hyderabad for the past 6 years during rainy season (2012-13 to 2017-18) on different aspects of rice cultivation in different districts of Telangana. Among the biotic stresses, insect pests and diseases are the most important and widespread vary widely in intensity making it difficult to manage in the farmers' fields. It was observed that diseases like blast, bacterial leaf blight, sheath blight and insect pests viz., brown plant hopper and yellow stem borer were predominant in tropical environment and regularly occurring. Furthermore, new threats like Erwinia rot and the re-emergence of old diseases such as sheath rot, false smut, stem rot and grain discolouration due climate change impacts is spreading to new geographic areas in Telangana. Among the climatic variables,

temperature and relative humidity are the key factors influencing development of any insect pest and disease of rice. In addition to climatic factors the major factors that have contributed towards changing scenario of biotic stresses are extensive cultivation of high yielding varieties, growing of varieties lacking resistance to major pests, intensified rice cultivation throughout the year providing constant niches for pest multiplication, imbalanced use of fertilizers, particularly application of high levels of nitrogen, non-judicious use of insecticides resulting in pest resistance to insecticides, and resurgence of pests and out breaks of minor pests/diseases. Based on the information generated, ecosystem specific management strategies were devised and implemented to bridge the yield gaps and enhance rice productivity and profitability in Telangana state.

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