

Category	: International Rice Research Conference
Select Theme	: Sustainable and equitable farming systems
Endorsement email	:
Keyword 1	: Nutrient management
Keyword 2	: Soil and soil health
Keyword 3	: Decision support tools
Title of Entry	: Farmers participatory Rice -Wheat Crop Manager on farm evaluation in rice - wheat systems of Eastern India
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Select only one type of presentation	: 3-5 minute flash talk
Abstract	: Rice–wheat (RW) is the most important cropping system of the Indo-Gangetic Plains, of India which approximately contributes about 40% of the country’s total food grains. Better fertilizer & crop management strategies have potential to improve crop productivity, degrading soil health and environment. Rice–Wheat Crop Manager (RWCM) is a web- based decision support system tool developed by International Rice Research Institute (IRRI) using principles of Site-specific nutrient management (SSNM). This tool provides fertilizer and improved weed management recommendation to the farmers based on a specific yield target, specific to a field have a potential to improve fertilizer use efficiency through balanced and timely fertilizer application to match the demand of the crop. The present investigation was carried out in 3 districts of Eastern UP, India with the objective to evaluate RWCM for increased productivity and profitability, and endorsement of RWCM recommendation in rice -wheat cropping systems. Altogether 153 farmer’s participatory on-farm trials were conducted during kharif on rice (77) and during rabi on wheat (76) in 2014-15 to 2016-17 in Ballia, Ghazipur and Chandauli district of Eastern UP, India, The on-farm trials consisted of four treatments for rice and wheat i.e. Farmers fertilizer practice (FFP), State fertilizer recommendation (SFR), Fertilizer recommendation as per soil test value (STVR) and Rice -Wheat Crop Manager (RWCM) based fertilizer recommendation. Pooled mean data of 3years indicated increase in grain yield of rice was associated with RWCM (5.67 t ha-1) to the tune of 10.5, 7.2 and 2.5 per cent over FFP (5.13 t ha-1), SFR (5.29 t ha-1) and STVR (5.53 t ha-1) respectively. Whereas, increase in wheat yield by RWCM (4.23 t ha-1)

was observed to the tune of 10.0, 7.4 and 3.94 over FFP (3.81 t ha-1), SFR (3.947 t ha-1) and STVR (4.07 t ha-1) respectively. Based on these results, it is concluded that nutrient application based on Rice-Wheat Crop Manager Recommendation have potential to achieve better crop growth, efficient nutrient management and higher yield, system productivity and system profitability in rice-wheat system of Eastern UP, India.

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