

# Spatial rice decision support system for effective rice crop management

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Rice, a widely grown crop all over the world provides food security to millions of people. The average productivity of rice in India is still low due to diversified environments under which it is being cultivated. Prediction and assessment of rice yields needs simplified precision models. A spatial rice decision support system (SRDSS) was designed by integrating ClimGen climate model and Oryza2000 crop model with soil and weather layers. This DSS facilitates input model parameters and geo-referenced maps to predict rice yield at polygon/pixel level. SRDSS is useful to researchers and planners not only in estimating rice yield but also to estimate optimum crop sowing dates and management practices to achieve target yield for the selected location. Further, SRDSS will be integrated with weather sensors to generate real time advisories to farmers at each level of decision making and to plan and achieve the targets of doubling the farmer's income by 2022.

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