

Contribution of Mathematical Model for the Development of Sustainable Agriculture

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ABSTRACT

This paper briefly describes the contribution of mathematical science in the development of rice growth model and outlines the potential uses of this kind of model for sustainable agricultural development. The model is a mechanistic model that simulates rice growth based on the interactions amongst rice characteristics and the various underlying environmental conditions. The model is very useful to researchers, extension workers and policy makers in their works. In research, it enables researchers to integrate knowledge with various disciplines in a quantitative manner thereby helping in understanding the complex behavior of agricultural systems on the basis of underlying processes. In field, it may be used to support problem-solving and decision-making processes. To policy maker, the model helps to predict the future outcomes based on the proposed current set of scenarios.