

Strategy Management of Soybean (*Glycine max L.*) for Dealing with Extreme Climate through the Use of Cropsyst Model

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Abstract : The aims of the research are: (1) to verify the cropsyst plant model of experimental data in the field of soybean plants and (2) to predict planting time and potential yield soybean plant with the use of cropsyst model. This research is divided into several stages: (1) first calibration stage which conducted in the field from June until September 2015.(2) application models stage, where the data obtained from calibration in the field will be included in cropsyst models. The required data models are climate data, ground data/soil data,also crop genetic data. The relationship between the obtained result in field with simulation cropsyst model indicated by Efficiency Index (EF) which the value is 0,939.That is showing that cropsyst model is well used. From the calculation result RRMSE which the value is 1,922%.That is showing that comparative fault prediction results from simulation with result obtained in the field is 1,92%. The conclusion has obtained that the prediction of soybean planting time cropsyst based models that have been made valid for use. and the appropriate planting time for planting soybeans mainly on rain-fed land is at the end of the rainy season, in which the above study first planting time (June 2, 2015) which gives the highest production, because at that time there was still some rain. Tanggamus varieties more resistant to slow planting time cause the percentage decrease in the yield of each decade is lower than the average of all varieties.

Keywords : soybean, Cropsyst, calibration, efficiency Index, RRMSE

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