

ABSTRACT

Advance changes in technology, economy and business environment are influencing all sectors including agriculture. Rice as the worlds main dietary food is experiencing a decrease in yield due to the infection of pests and diseases, decreasing level of water sources, the scarcity of suitable land for agriculture and inefficient labour management. Rice Yield losses of approximately 31.5% were attributed to rice plant related diseases. This work describes the development of a connectionist model to predict the rice yield based on the amount of area infected by rice diseases. The Back Propagation learning algorithm were used with 5 input parameters which represents the planting seasons; the plantation district and the 3 main deadly disease recordings from the Muda Agricultural area in Malaysia during various planting seasons from 1995-2001. The output parameter represents the rice yield measured in kilograms per hectare. The result of the model shows that the recorded average mean deviation is 0.053.