

Praphaphan Phanpakdee 2010: Decision Supporting System for Rice Diagnosis in Central Region of Thailand. Master of Science (Agricultural Information Technology), Major Field: Agricultural Information Technology, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Supaporn Thaipakdee, Ph.D. 93 pages.

The objectives of this research were to create a decision support system for the diagnosis of rice in the central region of Thailand and to study a user's satisfaction on decision support system for rice diagnosis in the central region on network. The process of research was gathering information on the rice disease in the central region totally 16 types : Rice Blast, Sheath Rot, Sheath blight, Narrow Brown Spot, Brown Spot, Dirty Panicle Disease, Bacterial Leaf Streak, Akiochi, Ragged Stunt Disease, Orange Leaf Disease, Leaf Scald, Yellow Orange Leaf, Red Stripe Disease, Yellow Dwarf Disease, Grassy Stunt Disease, and Gall Dwarf Disease. Then the data of disease were used for creating the inference mechanism in order to providing diagnosis in the form of information systems on the network or website.

The study of user's satisfaction on the decision support systems for rice diagnosis in the central region of Thailand was another objective which was useful for developing system. Because the effective evaluation information would be used for program development to meet the needs of the user. From the study of user's satisfaction found that they were satisfied at the high level ($\bar{X} = 3.69$).

The decision support systems were another option to help rice farmers sustain and prevent rice disease, which was the main crop of Thailand, by utilizing information from diagnosis. Besides decision support systems could be developed and used for other plants or related fields in agriculture.

Student's signature

Thesis Advisor's signature