

**ADOPTION OF LEAF COLOR CHART BY RICE FARMERS
IN NUEVA ECIJA PROVINCE**

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**MASTER OF SCIENCE
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ABSTRACT

MALONZO, OFELIA CAMPANO, Institute of Graduate Studies, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines. November 2007. **ADOPTION OF LEAF COLOR CHART BY RICE FARMERS IN NUEVA ECIJA PROVINCE.**

Adviser: **DR. TEODORA T. BATTAD**

The study determined the adoption of Leaf Color Chart (LCC) by the rice farmers in Nueva Ecija with 128 rice farmers as respondents (64 trainees and 64 non-trainees). They represented 14 municipalities of Nueva Ecija.

Data were obtained using the interview schedule. These were tabulated and analyzed using frequency counts, percentages, means, ranks, range, standard deviation, and Pearson's correlation coefficient particularly pair-wise deletion technique.

Findings of the study showed that the mean age of the farmers was 50 years; reached high school and college, and have been into rice farming for 20.5 years. They have devoted 4.08 hectares of their farm to rice farming during the dry season and 3.89 hectares during the wet season. More (50.72%) of the farmer respondents did not avail of rice production loan than those who did from individual and private sources (49.22%). Moreover, 42.97 percent relied on extension workers for rice information and technologies, 28.9 percent relied on PhilRice, 23.44 percent relied on farmers and their own experiences, and 4.69 percent relied on private companies.

Prior to the introduction to and use of LCC by the respondents in 2004, farmers devoted 4.08 and 3.89 hectares to rice during the dry season and wet season, respectively. Majority (80.48%) claimed they used quality seeds at an average seeding rate of 85.75 kilogram per hectare. The varieties they plant are PSBRc82, PSBRc18, PSBRc14, NSICRc122, and SL8-H. Their mean yield is 114.81 cavans per hectare (cav/ha) during the dry season and 92.15 cav/ha. during the wet season. The farmers apply fertilizer at NPK rate of 103-39-33 and correspondingly spend ₱5,488.50 on fertilizer. Only one farmer asserted using organic fertilizer.

Moreover, this study showed that 59.38 percent of the respondents were knowledgeable about LCC while 40.62 percent were not. They showed favorable attitude on LCC in terms of its relative advantage, complexity, triability, and observability. However, in terms of compatibility, farmers claimed non-conformity of their existing practices. They said that the use of LCC entails a new approach of nutrient management that is totally different (but not against) from their existing practices.

Furthermore, adoption of LCC was low among the respondents at only 32.82 percent. In all stages of the technology diffusion process, interpersonal channels of communication were preferred by the farmers.

Highly significant relationship of variables were found. These were between knowledge and attitude, knowledge and adoption, attitude and adoption, and adoption and yield.

Meanwhile, both the adopters and non-adopters apply lower Nitrogen (N), Phosphorous (P), and Potassium (K) rate during the dry season than the recommended

rate in Nueva Ecija. However, the non-adopters apply higher N than the recommended rate during the wet season. The adopters yield 12.17 cav/ha. more than the non-adopters contributing additional income of ₱5,745.50 in commercial rice production and ₱45,475.00 in certified rice seed production.

Among the identified problems encountered in using LCC, the inappropriateness of the LCC for some rice varieties were identified as the most pressing. As such, PhilRice may establish a critical level for varieties with intrinsically lighter or darker leaves than most of the rice varieties.

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