

FERTILIZER TECHNOLOGY ADOPTION AMONG RICE  
FARMERS IN SELECTED AREAS OF NUEVA  
ECIJA PHILIPPINES


MD. WAJED ALI SHAH  
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Submitted to the Faculty of the Institute of Graduate Studies,  
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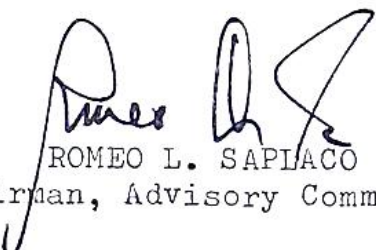
This thesis entitled FERTILIZER TECHNOLOGY ADOPTION AMONG RICE FARMERS IN SELECTED AREAS OF NUEVA ECIJA, PHILIPPINES, prepared and submitted by MD WAJED ALI SHAH in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE (Rural Development) is hereby accepted.

  
ANSELMO B. LAPDAG  
Member, Advisory Committee

3.31.88  
Date Signed

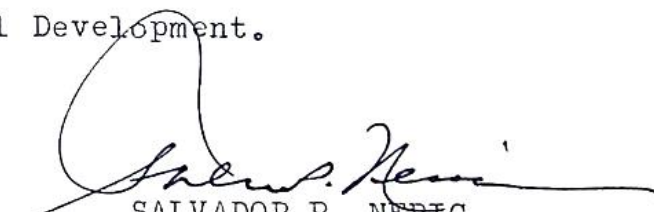
  
ROSITA L. ROSE  
Member, Advisory Committee

3/31/88  
Date Signed

  
ROMEO L. SAPLACO  
Chairman, Advisory Committee

3/31/88  
Date Signed

Accepted as partial fulfillment of the requirements for the degree of Master of Science in Rural Development.

  
SALVADOR P. NERIC  
Dean

4/1/88  
Date Signed

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## ABSTRACT

SHAH, MD WAJED A., Institute of Graduate Studies, Central Luzon State University, Muñoz, Nueva Ecija, Philippines, March 1988. FERTILIZER TECHNOLOGY ADOPTION AMONG RICE FARMERS IN SELECTED AREAS OF NUEVA ECIJA, PHILIPPINES.

Adviser : Dr. Romeo L. Saplaco

The study sought to determine the extent of fertilizer adoption in rice farming during wet season 1987 as influenced by some selected variables. The analysis was based on the primary data collected through personal interviews with 150 farmer-respondents in the selected areas of San Jose City and Muñoz, Nueva Ecija, Philippines. Stratified random sampling was used.

The major findings on the demographic characteristics of farmer-respondents include a mean age of 48.27 years, and mean family size of six members, mean years of schooling of 5.60, and mean farming experience of 27.67 years.

Among the socio-psychological characteristics of the farmer-respondents, the mean awareness of fertilizer technology was moderate and the risk perception or understanding of risk involved in rice farming was partial.

Furthermore, respondents had average farm size of 2.39 hectares of land which were mostly leased. Credit was never available and mean cost of fertilizers was high. The mean annual income from rice farming was ₱55,768.

Respondents had a mean contact with extension workers once in two months and very seldom with neighbors; the mean learning from field demonstration was timely application of fertilizer, and the frequency of listening to radio agricultural programs was seldom.

Fifty percent of the respondents followed the recommended fertilizer technology. Those who "very often" and "often" use it were 13 and 37 percent, respectively. Those "seldom" and "very seldom" followed the recommended technology was 31 and 19, respectively.

The correlation test showed that years of schooling, income from agriculture, credit-availability and perceived cost of fertilizers had significant relationships with the extent of fertilizer adoption. On the other hand, tenurial status, income from agriculture, credit availability and cost of fertilizers had significant relationship with timely application of fertilizers while tenurial status, income from agriculture and cost of fertilizer had significant relationships with methods of fertilizer application.

Chi-square test showed that awareness and risk perception had significant relationships with extent, timeliness, and method of fertilizer adoption. Among the technology transfer mechanism variables, contact with extension agents was found significantly related with extent of adoption and timely application of fertilizers. The contact with neighbors was also found significantly related to three levels of adoption. The field demonstration was found significant with timely application and methods of fertilizer application, while frequency of listening to radio agricultural program was related with timely application of fertilizers only.

The multiple regression analysis showed that extent of adoption (Y1) was significantly predicted by years of schooling, farming experience, farm size, tenurial status and credit availability. Farm size, tenurial status and cost of fertilizer significantly predicted the method of fertilizer application. A unit increase of these variables means a corresponding increase in extent of technology adoption and method of fertilizer application.

Among the problems encountered by the farmer-respondents, the main ones mentioned were the need for capital to purchase production inputs which were found very costly. To solve the problems, the respondents suggested institutional services in the form of better input price support for rice and more credit made available to farmers.

## BIOGRAPHICAL SKETCH

The researcher is the son of Mr. Keramuddin Ahmed (deceased) and Mrs. Aziza Khatun. He was born on February 28, 1951 in Birol, Dinajpur district, Bangladesh.

The researcher received his Secondary School Certificate (SSC) from Birol High School, Dinajpur, Bangladesh. He pursued his Bachelor of Science in Agricultural Economics (Honours) degree from the Bangladesh Agricultural University, Mymensingh, Bangladesh. He also earned his Master of Science in Production Economics and Farm Management from the same University in 1975.

He successfully completed a six-month training on Farming Systems Research in the International Crop Research Institute for Semi-Arid Tropics (ICRISAT), Hyderabad, India. The researcher underwent a four-month Rice Production Specialist Training at BRRI, Bangladesh.

x He pursued his Master of Science in Rural Development at the Central Luzon State University, Muñoz, Nueva Ecija, Philippines from June 1986 to April, 1988 as scholar of Winrock International Institute for Agricultural Development (formerly A/D/C) of USA.

The researcher served as Senior Scientific Officer and Site Coordinator of Farming Systems Research under the Division of On-Farm Research of Bangladesh Agricultural Research Institute (BARI) before coming to pursue graduate studies in the Philippines.

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