EVALUATION OF RICE BLAST MANAGEMENT TECHNOLOGIES IN WESTERN BHUTAN

DORJEE

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
(AGRICULTURE)
IN AGRICULTURAL SYSTEMS

GRADUATE SCHOOL
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Abstract

Rice contributes about 42 percent of the total cereal production in the country. It is the most preferred and indispensable staple food for the Bhutanese. Unlike, the other agroecological zones, vulnerability of the temperate region to rice blast is higher. The unprecedented rice blast epidemic, caused by *Pyricularia oryzae* Cavara (Telemorph *Magnaporthe grisea*) in 1995 in Bhutan prompted the Research and Extension to develop and disseminate technological packages to counteract such threats. Subsequently, many control measures were advocated for the rice farmers. In view of the foregoing backdrop, 158 sample households from two warm temperate districts of Paro and Thimphu, which are prone to rice blast, were selected for evaluation of rice blast management technologies and to determine potential impact of the current farming practices to rice blast; and propound appropriate preventive and curative measures.

The survey found out that growing of resistant variety (87.3 percent) dominated over other management strategies, such as chemical spray (56.2 percent), seed treatment (19 percent), fertilizer management (16.2 percent), water management (2.9 percent), and straw and stubble management (2.9 percent). These technologies were extended through