

HOME

About Journal@rchive

Journal List

Journal/
Society Search

GO

News



Science Links Japan

JST Japan Science and Technology Agency

Japanese journal of crop science

The Crop Science Society of Japan Info Link

[TOP](#) > [Journal List](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN: 1349-0990

PRINT ISSN: 0011-1848

■ Japanese journal of crop science

Vol.66 , No.3(1997)pp.479-487

[\[Full-text PDF \(1007K\) \]](#) [\[References \]](#)**Village-Level Studies on Rice-Based Cropping Systems in the Low-Lying Areas of Bangladesh : III. Expansion of Boro rice cultivation under the chaunia system and farmers' reaction in the Bogra District of the Barind Tract**

Md. Abdur RASHID, Kazuo ANDO, Koji TANAKA and Yoshihiro KAIDA

1) Division of Tropical Agriculture, Faculty of Agriculture Kyoto University

2) CSEAS, Kyoto University

3) CSEAS, Kyoto University

4) CSEAS, Kyoto University

[Received: 1996/10/30]

[Published: 1997/09/05]

[Released: 2008/02/14]

Abstract:

Following the introduction of shallow tube-well (STW) irrigation in the late 1970s, modern Boro rice cultivation was adopted very rapidly. Boro rice growth depends on irrigation and has made farmers more dependent on STW owners, who have taken the opportunity to develop Et land tenancy known as chaunia, under which they rent rice lands and grow Boro rice on a tenancy basis, particularly during the dry season. Under this system, the STW-owner farmers tend to use more chemical fertilizers in terms of volume and kind, but neglect the application of organic manures. Among the chemical fertilizers, extreme use of urea is observed in the chaunia system. This pattern of fertilizer application induces a decrease in the yield of transplanted Aman rice (T.Aman) during the wet season. Farmers suggest that the T.Aman yield has decreased due to the deterioration of soil conditions. Nevertheless, most of them are compelled to follow the chaunia system due to the scattered distribution of paddy plots and the reluctance of STW owners to sell water. Considering the negative effects of chaunia on soil fertility, a few farmers recently began to offer organic manures to STW-owner farmers for application before the planting of Boro rice, because they could not apply sufficient manure during the wet season due to the problem of transportation. This modified pattern of farming management is expected to expand in the study village. The initiative of farmers in modifying farming practice is considered to be significant in order to increase sustainable crop productivity in the Barind Tract.

Keywords:

Barind Tract, Boro rice, Chaunia system, Cropping systems, Fertilizer application, Shallow tube-well irrigation, Soil management

Copyright© Crop Science Society of Japan

[Access Policy](#)

[Privacy Policy](#)

[Link Policy](#)

[Contact](#)

[Amendment Policy](#)

Japan Science and Technology Agency

