

Impact of farm school: A study of Khowai district of Tripura

■ Dipak Nath* and Dipankar Dey
Krishi Vigyan Kendra, KHOWAI (TRIPURA) INDIA
(Email: spd020@yahoo.co.in)

ARTICLE INFO :

Received : 07.11.2014
Accepted : 30.11.2014

KEY WORDS :

Farm School, IPM

HOW TO CITE THIS ARTICLE :

Nath, Dipak and Dey, Dipankar (2014). Impact of farm school: A study of Khowai district of Tripura. *Adv. Res. J. Soc. Sci.*, 5 (2) : 261-262.

*Author for correspondence

ABSTRACT

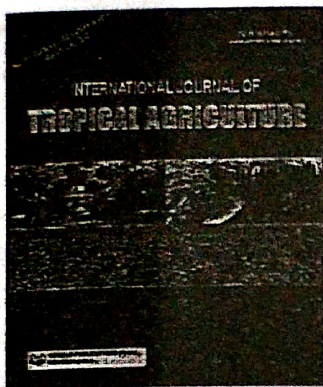
Farm School (FS) on IPM in vegetables was conducted in Kamalnagar village of Khowai district of Khowai with 30 progressive farmers of the village. The study was conducted just after completion of the FS with 60 respondents (30 participants and 30 non participant farmers) to find the knowledge level on IPM technology. The socio personal characteristics like age, educational level and mass media exposure of the respondents were also studied. The study revealed that majority (70.00 %) of the participant farmer had medium level of knowledge followed by 26.67 per cent and 3.33 per cent had high and low level of knowledge on IPM technology, respectively, while in case of non participant farmer majority (86.67 %) of the respondents had low level of knowledge followed by 13.33 per cent medium and no one had high level of knowledge.

Transfer of technology is really a challenging job in present day's context. Although the need for transfer of technology has long been felt with inception of community development programme in 1942, but still today the scenario of technology transfer is not satisfactory (Deka *et al.*, 2014).

There are numerous agricultural 'bright spots' covering crops, fruit trees, farm animals and fisheries in the country. These bright spots are the results of the work of innovative and hard working farm women and men. Farm Schools (FS) are established in the fields of such innovative farmers or farmer achievers who are actually enhancing productivity and profitability in their farms through scientific and sustainable agriculture. Farm School is powerful instrument for participatory research and knowledge management. It is an alternative extension tool and facilitate farmer-to-farmer learning. It also reduces the widening gap between scientific know-how and farmers practices (Nath *et al.*, 2010). KVK, West Tripura has been conducting several Farm School in Khowai and West Tripura district of Tripura under ATMA since 2009- 2010. To find out the success of any programme, a periodic appraisal and evaluation of what is being done is essential, so that suitable changes can be made to make the programme more effective. Keeping this idea, the present study was conducted

with the objective of finding out the impact of FS on enhancing the knowledge level of the respondents.

Farm School on IPM in vegetables was conducted in Kamalnagar village of Khowai district of Khowai under the sponsorship of ATMA, West Tripura where 33 farmers of the locality were participated during April to June, 2013. The study was conducted just after completion of the FS with 30 participants and 30 non - participant farmers. For measuring the knowledge level of the farmers (participant and non - participant) on IPM technology, a knowledge questionnaire on various aspects of IPM were prepared; while preparing the questionnaire, the topics covered in the FS were taken into consideration. In order to find the knowledge level of participant and non - participant farmer knowledge test was conducted with both the groups just after completion of the FS. The knowledge of the participants was measured by assigning score "1" for correct answer and "0" for incorrect answer. The respondents were further categorized into three categories, viz., low, medium and high based on the total score obtained by each of the respondents and percentage were calculated for each group. The socio personal characteristics like age, educational level and mass media exposure of the respondents were also studied.



Training need of Potato growers of Tripura

D. Nath, S. Shil, A. Chakraborty and D. Dey

KVK, Khowai, P.O. Chebri, Khowai, PIN 799207

Corresponding author E mail: spd020@yahoo.co.in

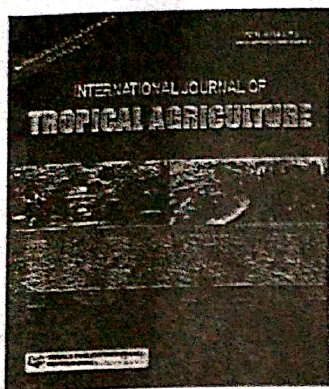
Abstract: The study was conducted in Khowai district of Tripura to find out the training need of potato growers of Tripura. The potato growers in the main areas of training need perceived that plant protection measures as their first and top most required training need indicating its percentage, i.e., 92.50 per cent followed by seed treatment (74.17%) and manures and fertilizer management (67.50%) which received 1st, 2nd and 3rd rank respectively. It was also found that the perceived sub areas by respondents were awareness about use of various insecticide and pesticide as the top most relative need indicating 92.50% with 1st rank followed by cause of spread (84.16%) and identification of major insect pest and disease (81.67%) which received the 2nd and 3rd rank respectively.

Key word: Training need, Potato grower, Potato, Tripura

INTRODUCTION

North east India consists of 8 states, viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Compared to national average of 18.2 t/ha, potato yield in the NE states except Tripura (19.7 t/ha) has been all time low (4.2-8.3 t/ha). The low potato yield in the NEH region could be attributed to many factors. However, per capita availability of potato in the region is higher than the national level. (Singh *et al*, 2003). Potato is one of the important crops grown in Tripura. The

significance of this crop to the rural economy as well as agriculture of the state could be comprehended from the fact that potato occupies more than 5717 thousand hectare of land which accounts for 110 thousand MT productions (FIB, 2008). But though figures are satisfactory then also farmers are facing big loss in terms of yield. The main reasons for the low potato yields are adequate and untimely availability of essential crop inputs like healthy seed, fertilizers, pesticides etc. coupled with poor management practices followed by the growers.



Impact of Certain Agrochemicals on Leafhoppers, *Amrasca biguttula biguttula* (Ishida) (Homoptera: Cicadellidae) in Bhendi, *Abelmoschus Esculentus* (L.) Moench, Ecosystem

Ardhendu Chakraborty^{1*}, Dipak Nath², K. Kumar³, Subhra Shil⁴, Dipankar Dey⁵ and Rahul Saha⁶

^{1,2,4,5}Krishi Vigyan Kendra, West Tripura, Khowai, Tripura – 799207, India

³Department of Entomology, PAJANCOA and RI, Karaikal, U.T. of Puducherry- 609 603, India

⁴ICAR Research Complex for NEH Region, Tripura Centre, Lembucherra, Tripura-799210, India

*Corresponding author. E-mail: imardhendu@gmail.com

Abstract: Two supervised field experiments were conducted in the bhendi during kharif, 2014 and rabi, 2014-15 to study the impact of agrochemicals on leafhoppers population. The agrochemicals used were fertilizer, insecticide and herbicide individually as well as in combinations. It was found that the population of leafhoppers was higher in the untreated check (4.53 to 7.06/plant) while a low population was recorded in the treatment with herbicide + insecticide (1.43 to 2.63/plant) during kharif. In rabi, a higher population was recorded in the untreated check (4.33 to 5.96/plant) while a low population was observed in the treatment with herbicide + insecticide (1.13 to 2.36/plant). It was also found that, the population was higher in the treatment with fertilizer (3.94 and 4.05/plant in kharif and rabi respectively) alone compared to the other treatments in both the seasons. Hence, a need based application of agrochemicals protect the ecosystem with a lesser impact on the insects and natural enemies.

Key words: Leafhoppers, *Amrasca biguttula biguttula*, impact, agrochemicals.

INTRODUCTION

India is a major vegetable producing and consuming country and vegetables form an important dietary component. Among them okra, (*Abelmoschus esculentus*

(L.) Moench) is one of the popular and commercially cultivated vegetable crops, popularly known as Bhendi or ladies finger and is a potential foreign exchange earner, accounting for 60 per cent of

Perceived Constraints in Adoption of Nutritional Garden in Tripura

D. Nath^{1*}, S.C. Biswas¹, S. Shil¹, A. Chakraborty¹ and D. Dey¹

Abstract: The study was conducted in the operational area of KVK, West Tripura with randomly selected 120 beneficiaries to find out the constraints in adoption of Nutritional garden in Tripura. Majority of the respondents perceived poor irrigation facility (74.17%) under constraints related to input. A technical constraint, viz., lack of knowledge about seed treatment (91.67%) was the major hindrance in successful adoption of nutritional garden. Amongst post harvest constraints, a major constraint was lack of knowledge on preservation and processing of surplus produce (82.50%). High rainfall damages garden during rainy season (65.00%), less priority is given to nutritional garden than other farm activities (50.83%) and high soil pH (46.67%) were general constraints as perceived by the respondents.

Keywords: Nutritional garden, Constraints, Tripura.

INTRODUCTION

Vegetables occupy an important place in our daily life particularly for vegetarians. Vegetables are the only source to increase not only the nutritive values of foods but also their palatability. For a balanced diet, an adult should have an intake of 85 g of fruits and 300 g of vegetables per day according to the dietary recommendation of nutrition specialists. At present, the per capita availability of vegetable in India is about 135 g which is quite less as compared to 300 g as prescribed by the dieticians. (Sharma et al., 2011). With increase in population of our country and improvement in dietary habits, the consumption of vegetable has improved. People have realized the importance of vegetable in their diet as vegetable have high nutritive values which are vital for the body. In the present scenario, the cultivable land is decreasing day by day due to rapid urbanization, industrialization and shrinking land holding. The dietary requirement of vegetable can be easily fulfilled through the concept of nutritional garden as vegetable can be easily raised in small piece of land. Although urban people are quite aware about the benefits of nutritional garden, still

there are few takers of this concept amongst the rural folk. The predominant reasons for the poor adoption amongst rural people may be due to lack of technical know-how, lack of awareness and knowledge regarding vital inputs like seed, water and FYM, plant protection measures, storage and processing etc. Realizing the importance of constraints, an effort was made to identify the major bottlenecks in adoption of nutritional garden.

METHODOLOGY

The study was conducted in the operational area of KVK, West Tripura. A random selection of 120 nos. of beneficiary farmers was made from the undivided West Tripura district of Tripura where demonstration on nutritional garden was conducted during 2014-15 and 2015-16. In the present study, constraint was conceptualized as irresistible force that acts as hindrance in adoption of recommended nutrition gardening techniques. A list of major constraints was prepared in consultation with extension scientist, available literature, field functionaries and progressive vegetable growers. Further, the major constraints were categorized into

Yield evaluation of sesame, *Sesamum indicum* L in acidic soils of Tripura

DIPANKAR DEY, DIPAK NATH, PHANI BHUSAN JAMATIA*

Krishi Vigyan Kendra, Chebri, West Tripura 799207 Tripura, India

*Dept of Agriculture, Govt of Tripura, Agartala 799001 Tripura, India

Email for correspondence: spd020@yahoo.co.in

ABSTRACT

A field study was carried out to evaluate the seed yield potentials of thirteen sesame varieties in the experimental farm of KVK, West Tripura of Tripura state in the Kharif Season of 2014-15. It was aimed at selecting high yielding varieties for cultivation in the district. The varieties under study were Rama, MT-75, RT-346, JLT-408, RT-127, TKG-306, RT-54, Nirmala, JTS-8, AKT-10, PKV-NT-11, GT-10, TKG-55. The experiment was laid out in a randomized complete block design (RCBD) in three replications. Different parameters like days to 50 per cent flowering, number of seeds per capsule, capsule length, capsule width, days to maturity, test weight and yield were taken and analysed. The results indicated significant variation among the varieties in seed yield parameters. Varieties RT-54, Nirmala, JTS- 8, Rama and JLT-408 which showed high seed yield of 968,773, 666, 624 and 616 kg/ha respectively were recommended to farmers in the district.

Keywords: Sesame; varieties; seed yield

INTRODUCTION

Sesame (Pedaliaceae) is one of the most ancient crops grown for its oil-rich seeds. Africa and India have been reported as areas of its origin (Bedigan 2003). It is a crop of the tropical and subtropical areas. Good yield has also been recorded from sesame grown in the temperate climate (Blair 2008). Bulk of sesame in the world is grown in the semi-arid regions with little rainfall which is an indication that sesame is a drought tolerant crop and sometimes susceptible to high moisture. However some

varieties obtained from the wet areas have been shown to be susceptible to drought conditions (Langham and Weimers 2002). China is the world's highest producer of sesame followed by India and Myanmar. Sudan, Uganda and Nigeria rank 4th, 5th and 6th in that order. The problem of low seed yield has been attributed to the cultivation of poorly yielding dehiscent types, yield loss during threshing, lack of agricultural inputs such as improved varieties, fertilizers, pesticides and other agrochemicals, poor management and lack of appropriate breeding programme in



Integrated Crop Management in paddy – maize cropping sequence doubled the farmers income of North Pulinpur ADC village of Tripura, India with sustainable natural resource management – a case study

Dipankar Dey^{1*}, Ardhendu Chakraborty¹, Dipak Nath², Golab Sing Yadav²,
Anup Das³, Sankar Prasad Das³ and Lord Litam Debbarma³

¹Krishi Vigyan Kendra, Khowai, Chettri-799207, Tripura

²Central Agricultural University, College of Agriculture, Imphal-756004

³ICAR Research Complex for NEH region, Tripura Centre, Lembucherra-799201

*Corresponding Author's email: ddey611@gmail.com

Abstract

North Pulinpur with GPS location 23°52.836' N, 91°36.275' E and elevation 45m is one of the drought prone tribal inhabited ADC village of the Khowai district of Tripura. The total geographical area of the village is 950 hectare with cultivable area of about 250 hectare only among 816 farm families. So, most of the families are holding either small or marginal farms. There are no perennial streams, rivers, ponds and other irrigation facilities in the village. Temperature of village areas ranges from 16°C to 37°C. Annual rainfall ranges from 2050 to 2550 mm, but almost entire amount goes out to neighboring lower elevated village. Agriculture is the mainstay of the people, about 85 percent of them engage in agriculture and its allied activities. Farmers earned their livelihood from rainfed rice based mono-cropped cultivation. Moisture stress during Kharif due to dry spell and winter season which lead to rice based mono-cropping system. Under the National Innovations in Climate Resilient Agriculture (NICRA) Project KVK, Khowai has constructed and rejuvenated 22 water bodies from 2011-12 to 2018-19 at North Pulinpur ADC village, all of which provided life saving irrigation during rabi season through Nano Pumps installed nearby Farm Ponds. After the intervention, approximately 26187 ft³ rainwater /pond/ year has been harvested and with this harvested water, maize (DA-61A) was introduced after rice in a cluster approach with integrated crop management in collaboration with ICAR research complex for NEH region Tripura Centre. The results indicated that significant increase has been observed in productivity of paddy as well as maize in the demonstrated plots whereas farmer's income could also get doubled in the demonstrated plots due to the high price obtained with paddy seed production as well as high price obtained from submergence Production.

Keywords: North Pulinpur, Paddy, Tripura, Maize

Introduction

Maize is one of the most important food grains grown in Tripura after rice. In Tripura, maize generally cultivated from decades, mainly in jhumlands but it has been observed that area and production of maize has been increased tremendously almost 5 times as compare to the year 2005-06. It is due to the promotion of this crop through various centrally sponsored schemes like National Food Security Mission. Maize is mostly consumed by the tribal communities of Tripura. Although production and productivity of Maize in Tripura is in increasing trend, still there is an immense scope to promote maize with scientific interventions.

There is a tremendous potential in promotion of scientific maize cultivation under Tripura Condition especially during the Kharif season as majority of lands remain fallow after harvest paddy cultivation. At present the productivity of maize is low under Tripura Condition as compare to the majority of the maize growing states of the country. There is also immense scope for maize based small scale entrepreneurship development in the state. Maize based cropping system can lead to the development of small scale enterprises within a short period. Among the major problems

Impact of custom hiring centre among the tribal farmers of Tripura under NICRA project

Dipak Nath and Dipankar Dey

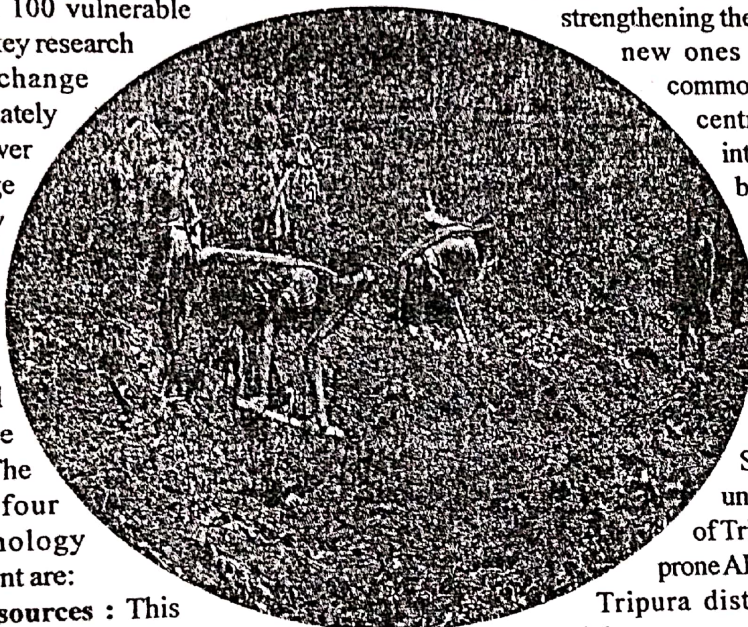
Krishi Vigyan Kendra, Chebri, KHOWAI (TRIPURA) INDIA

(Email: spd020@yahoo.co.in)

NICRA is a network project of the Indian Council of Agriculture Research (ICAR) launched in February, 2011. The project aims to enhance resilience of Indian agriculture to climate change and climate vulnerability through strategic research and technology demonstration. The output of the project is selection of promising crop genotypes and livestock breeds with greater tolerance to climate stress; Existing best bet practices for climate resilient demonstrated in 100 vulnerable district, Infrastructure at key research institutes for climate change research strengthen adequately trained scientific manpower to take up climate change research in the country and empowered farmers to cope with climate variability with the outcome to enhanced resilience of agricultural production in vulnerable region of the country. The intervention cover four modules under technology demonstration component are:

Module I: Natural resources : This module consist of interventions related to *in-situ* moisture conservation, water harvesting and recycling for supplemental irrigation, improved drainage in flood prone areas, conservation tillage where appropriate, artificial ground water recharge and water saving irrigation methods.

Module II: Crop production : This module consist of introducing draught/ temperature tolerant varieties, advancement of planting dates of *Rabi* crops in areas with terminal heat stress, water saving paddy cultivation methods (SRI, direct seeding), frost management in horticulture through fumigation, community nurseries for delayed monsoon, custom hiring centre for timely planting, location specific intercropping system with high sustainable yield index.



Module III: Livestock and fisheries : Use of community lands for fodder production during draught / floods, improved fodder/feed storage methods, preventing vaccination, improved shelters for reducing heat stress in livestock, management of fish pond/tanks during water scarcity and excess water, etc.

Module IV: Institutional intervention : This module consist of either of institutional interventions either by strengthening the existing one or initiating new ones relating to seed bank, commodity groups, custom hiring centre, collective marketing, introduction of weather index based insurance and climate literacy through a village level weather station.

About the village : KVK, West Tripura has been implementing the project in North Pulinpur ADC village; a 100 per cent ST populated village of undivided West Tripura district of Tripura. It is one of the drought prone ADC villages of undivided West Tripura district of Tripura where no perennial streams or rivers are present. Cropping system is mainly rice based and purely rainfed. Water scarcity and unavailability of irrigation facility force farmers towards practice of *Jhumming* which leads to high rate of erosion with rapid loss of top soil.

Name of the village	: North Pulinpur ADC village
District	: West Tripura
Total No. of household	: 806
Total cultivated area	: 250 ha
Major soil types	: Red loamy to sandy loam
Mean annual rain fall	: 2035 mm
Major crops	: Rice, chillies and maize
Climate vulnerability	: Water scarcity and cyclone