

## **1. ECOFRIENDLY MANAGEMENT OF INSECT PEST IN PADDY**

### **INTRODUCTION**

Kolasib district has a vast potential in rice cultivation and is among one of the major crops grown within the district. Pest and disease incidence is the most common problem faced by the farmers throughout the cropping season in rice ecosystem. The yield loss due to pests and diseases were estimated from 24% to 41%. Unjudicious use of plant protection chemicals among the farmers leads to pest resurgence and pesticides resistance. Ecofriendly management depends on minimum use of plant protection chemicals, weedicides and fertilizers.

### **KVK INTERVENTION**

KVK, Kolasib district conducted On Farm Trials on Ecofriendly management of insect pest in Paddy in three different villages i.e Chemphai, Buhchangphai and Meidum village by using cultural practices like hand picking, clipping of leaf tips, installation of Pheromone trap and spraying of Neem oil as pest repellent. Surveillance and monitoring was also conducted in farmer's field in order to identify the major pest and disease which caused devastation in farmer's field. Trainings on 'Integrated Pest and Disease Management in Paddy' was given so as to impart knowledge on various plant protection techniques among the farmers. Front Line Demonstration was also taken up in 10 farmers field during 2021-2022 for disseminating the technology.



*Gundhi bug*



*Pheromone trap*

## OUTPUT&OUTCOME

After KVK intervention, farmers started to adopt the new technology by minimizing the use of chemicals and focus more on the ecofriendly management practices which is convenient and easily available in the local market since many people preferred organic products compared to the conventional ones. Installation of pheromone traps and spraying of Neem oil reduce Stem borer incidence to 32% against 52.5% in farmers practice. The results are listed below:

Treatments	Dead heart % for stem borer	Damaged leaves per 10 hills for Leaf folder	Insects per 10 hills for Gundhi bug	Yield (Q/ha)	B:C ratio
<b>Clipping of leaf tips, collection and destruction of egg, larvae, pupae and adults of different insects + Installation of pheromone traps@16-20 traps/ha for yellow stem borer + Spraying of neem oil@3ml/litre at 10 DAT followed by second spray after 20 days interval.</b>	32%	25%	40%	45	2.4:1
<b>Clipping of leaf tips, collection and destruction of egg, larvae, pupae and adults of different insects + Spraying of neem oil@3ml/litre at 10 DAT followed by second spray after 20 days interval.</b>	45%	34%	52%	38	1.9:1
Farmer's Practice	52%	41%	54%	26	1.6:1



### *Ecofriendly pest management in Paddy*



### *Organic Management in Different Crops*

#### **IMPACT**

Farmers are interested in adopting this technology since it proved to be a success. Inputs like Neem oil, Yellow sticky trap and Pheromone traps were supplied from KVK, Kolasib. They are also interested in organic management practices not only in Paddy but also in different horticultural crops.