

THE SEASONAL OCCURRENCE OF THE RICE STEM BORER IN KUTTANAD (KERALA)

The rice cultivation season of Kuttanad extends from September to March. A major portion of this tract has only one cultivation during the year and at least for some time during the year the field will be completely inundated. The ecological conditions existing in these tracts are thus unique and totally different from those of the other paddy tracts of the State.

Rice stem borer (*Tryporyza incertulas*) is one among the important pests of rice in Kuttanad. There is no information on the seasonal occurrence of the pest in this region. The present studies were hence undertaken at the Regional Rice Research Station, Moncompu, Kerala, to follow the population fluctuations of the insect during the cultivation season. The field population of the rice stem borer was estimated in terms of the moths caught in an Edwards model light trap with a 100 watts electric bulb for four hours following sunset, daily. The data were set out for periods commencing from a new moon day to the next pre-new moon day as it was known that moon light affected the moth catches.

Data of the moth catches in relation to the variations in temperature and rainfall for three years are represented in Figures 1 to 3. It may be observed that in general the population of the moth showed a gradual increase from November, reached peaks during January and February and decreased subsequently. Heavy rains appeared to be inimical to the moths as was evidenced from the moth catches during 1966-67 and 1967-68. The temperature variations were very slight and did not appear to have any relation with the moth populations. An year to year variation in the size of the moth population also was evident. Thus when the moth population in general was of a very high magnitude during 1965-66 it was very low during 1967-68 and of an intermediate magnitude during 1966-67. The climatic factors of temperature and rainfall did not appear to be correlated with these variations and more objective studies are needed to understand the cause of the year to year variations which are of significance in forecasting pest outbreaks.

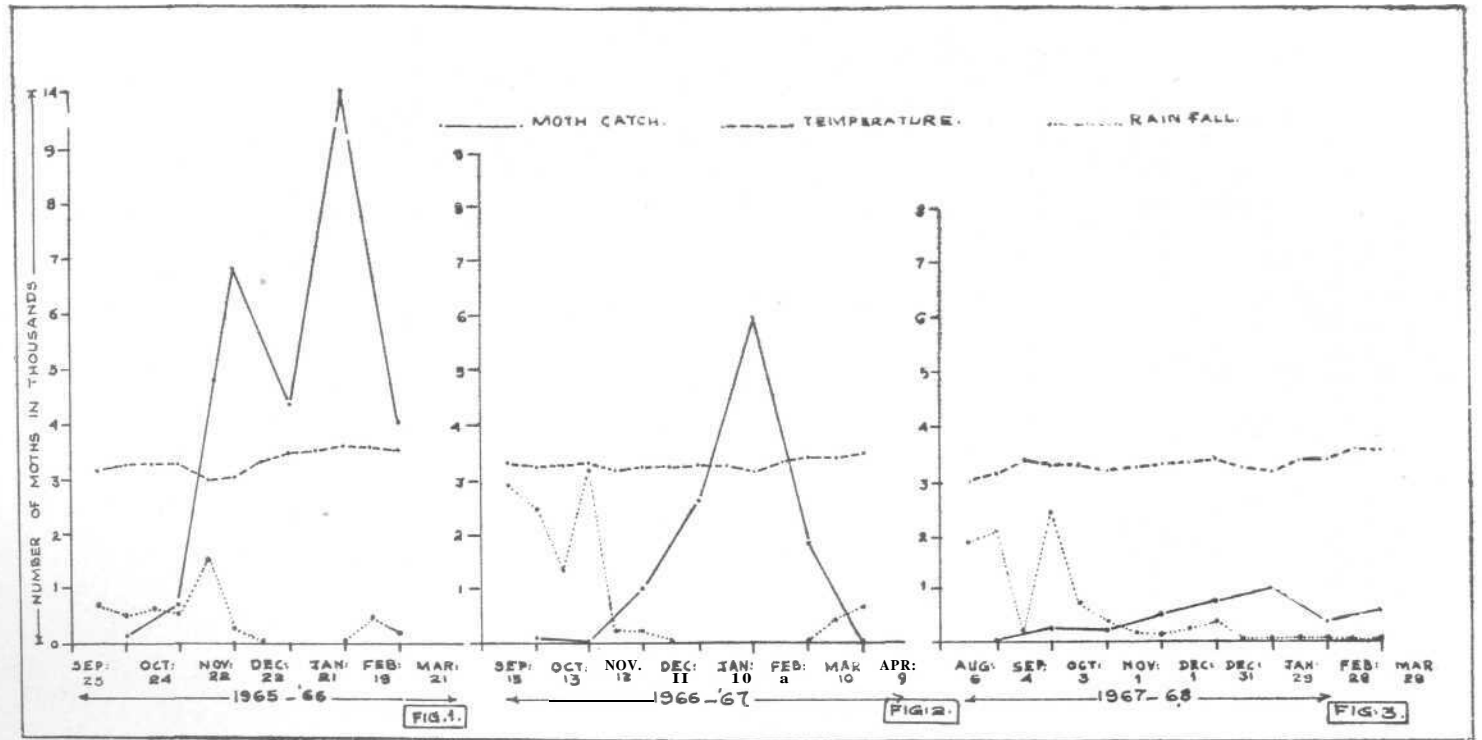
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Fluctuations of stem borer moth catches, temperature and rainfall during 1965-66 (Fig. 1), 1966-67 (Fig. 2) 1967-68 (Fig. 3),