

A Note on the Jassid Bugs of Paddy.*

Introduction.

PADDY (*Oryza sativa*) is subject to the attack of about three dozen insect pests of which eight or nine, such as the paddy stem borer (*Schœnobius incertellus*, W.), the paddy swarming caterpillar (*Spodoptera mauritia*, B.), the rice bug (*Leptocorisa acuta*, Th.), the rice grasshopper (*Hieroglyphus banian*, F.), the rice case-worm (*Nymphula depunctalis*, Gr.), the paddy gall-fly (*Pachydiplosis oryzae*, W.), the rice Hispa and Leptispa, are major pests. The Jassid bugs of paddy, however, come under the group of minor pests. Normally they do not do much harm to the plant but, in certain years, cause fairly serious damage.

Jassids—What these are.

Jassids are plant bugs belonging to the sub-order Homoptera, order Rhynchota. These have sucking type of mouth parts and two pairs of wings. They have an incomplete metamorphosis. Eggs are laid on the tender portions of the plant and the young ones which hatch out—nymphs—and also the adult bugs suck the juice of the plants and,

* In view of the recent outbreak of *Jassid* pest of paddy in Godavari delta, this account given by Mr. C. Cherian will be of interest (Ed.).

if found in large numbers, the affected portions fade and dry up as a result of the attack.

Species of Jassids affecting Paddy.

Four species have been known to affect paddy in the Madras Presidency. These are the green-spotted Jassid (*Nephotettix bipunctatus*, F.); the white Jassid (*Tettigoniella spectra*, D.); *Erythroneura subrufa*, M., and *Deltocephalus dorsalis*, M. Of these, the first two are found in almost all paddy areas while the third one is commonly noticed in North Malabar and the last in the Northern Circars.

Control Methods.

Collection of nymphs and adults with hand-nets or bags have been found to be successful against the pest. The use of sticky winnows is yet another method advocated in some places. Light traps have also been tried especially against the green-spotted Jassid. The use of tobacco dust mixed with lime has given successful results against nymphs.

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A Note on the Locust Position in North-West India and Baluchistan during the Current Year—1935.

EXPERIENCE gained during the last three years has shown that the multiplication of the Desert locust is entirely dependent on favourable rainfall in its breeding areas. During the winter and spring of 1934-35, early, wide-spread and heavy rains were received throughout the winter-rainfall areas of Baluchistan and Persia, and many of the coastal areas, such as Jask, Gwadar, Pasni and Ormara, recorded more than 10 inches of rain between December 1934 and April 1935. In the wake of such favourable rainfall, the locust was noticed to begin egg-laying early in February, and by April 1935 adult locusts of the new generation were found to have come into existence in fairly large numbers.

In the hinterland of Mekran, two cases of damage to *Jowari* crops by bands of gregarious hoppers were reported in June and

July respectively, and on investigation, it appeared as if the hoppers had come into existence as a result of concentrated egg-laying in the sandy areas close by, by individuals of the first generation, that had been produced in the coastal areas and had, later on, migrated into the interior of Mekran. The adult locusts emerging from the infestations mentioned above are reported to have disappeared after acquiring wings. Since the interior of Mekran becomes an area of high temperatures and low humidity during July, August and September, it is presumed that they flee from such uncongenial conditions in search of better environmental conditions elsewhere.

By about the second week of July, a sudden increment in the numbers of locusts was noticed in several different places almost simultaneously: for example, at