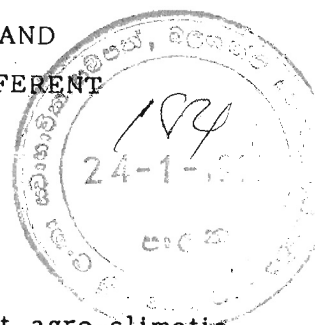


## SUMMARY

# IDENTIFICATION OF INSECT PESTS OF STORED PADDY AND STUDY OF THEIR POPULATION BUILD-UP PATTERN IN DIFFERENT ACRO-CLIMATIC ZONES OF SRI LANKA

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Identification of insect pests of stored paddy in different agro-climatic zones, namely, dry zone, intermediate zone, mid country wet zone and low country wet zone was carried out and population build-up pattern of identified insect species was studied for the storage period of twelve months. Eight farm level stores and two commercial level stores were randomly selected to collect samples of stored paddy at intervals of 30 days during the entire storage period of one year.

Nine species of insects were identified in paddy collected from different agro-climatic zones. Rhizopertha dominica, Sitotroga cerealella and Sitophilus granarius were considered to be major insect species of stored paddy and insect species, namely, Sitophilus oryzae, Tribolium castaneum, Oryzaephilus surinamensis, Acarus spp and Liposcelis spp were considered to be minor insect species of paddy stored under different agro-climatic conditions. Rhizopertha dominica was a dominant insect species in all agro-climatic zones through out the total storage period of twelve months. The secondary insect species of T. castaneum, O. surinamensis, Cryptolestes spp became evident only after six months of storage, usually after infestation by primary insect species, namely, R. dominica, S. cerealella and Sitophilus spp. The Acarus and liposcelis species appeared in stored paddy only after eight months of storage, usually after infestation by other insects.

Infestation of S. cerealella was observed only in fresh paddy and during high humid conditions where the moisture content of paddy was more than 14.0% w.b. There was no considerable effect of temperature and relative humidity that prevailed in four agro-climatic zones during the storage period of 12 months on the population of R. dominica, Sitophilus spp and minor insects except Acarus species.