
EDITORIAL

Pest Control

PRACTICALLY all cultivated crops are susceptible to attack by destructive pests that take heavy toll under conditions favourable to their spread. However, exact extents and nature of crop losses due to pests are hard to assess as many variables and complicating factors are involved. Pest infestations not only depress yields, but also lower the quality of produce and increase their costs of production, by involving the farmer in additional expenditure for the purchase of plant protection materials and equipment.

Development of pest control measures perhaps began with the earliest attempts of man to raise food crops. The practice of making sacrificial offerings to appease deities whose benevolence was considered vital for successful crop production must have been one of the widely adopted forms of crop protection for thousands of years. It is likely that cumbersome mechanical measures were also developed to supplement this practice.

Beginning with the accidental discovery of bordeaux mixture in 1882, an increasing number of chemicals have been employed for effective pest control. However, until the manufacture of calcium arsenate most of the chemicals such as Paris green and London purple, used for pest control, were originally intended for other industrial use. Discovery of their insecticidal properties was more by accident than by design. Early in the present century, however, the development and production of chemicals for the specific purpose of pest control became an established industry and several effective products became available for use in agriculture.

Development of DDT during World War II marked the beginning of a new era in the insecticide industry. Several organic insecticides adaptable to a wide range of crops and insects were soon on the market. These new insecticides have made possible the control of not only several persistent pests insensitive to the older insecticidal materials, but also some pests that appeared to develop resistance to repeatedly used insecticides.

Although the newer insecticides are very effective for pest control their improper and excessive use, and careless handling can make them extremely hazardous, as many of them are highly toxic to man and animals. There is also a school of thought that the cumulative effects of even the apparently harmless insecticides can induce disease conditions in man and animals. Whether or not there is sufficient

justification for entertaining such fears, the development of pest control measures that do not involve the use of materials toxic to man and animals is a laudable achievement.

Today, there is considerable interest in the development of effective pest control measures based on natural controls, so as to use insecticides only in a supplementary role. In the past there have been several notable achievements in regard to the employment of predators and parasites to combat troublesome pests. The use of the pupal parasite, *Trichospilus pupivora*, to control the coconut caterpillar is one such example.

This number of the Tropical Agriculturist carries an article regarding the preliminary attempts made in this country to take advantage of a more recent development in the field of biological control, viz. Microbial Control. As reported in the article, the results are encouraging. However, any definite pronouncements as regards the practicability of microbial control in Ceylon must necessarily await the results of further investigations and trials.