

Perspective



The Insect Menace

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MAN'S GREATEST RIVAL, the insect? It has been said that man's greatest enemy is man, and in these times of international strife and atomic developments such would seem to be the case. Man *vs.* man for spacial requirements, religious and political beliefs, and a few economic products. With the insect, man competes not only for spacial requirements but for all of his food and any products that are of plant or animal origin and also for life itself as controlled by diseases attributable to the attacks of insects. We have but to compare man with the insect to realize that the insect menace is very real indeed and not a figment of the imagination. Man is a comparative newcomer on the earth, since so far as known he appeared only some 500,000 years ago: whereas we know that insects have been present over 500,000,000 years and were in control long before man's arrival. Insects have evolved into many thousands of species while man is but a single species. In order to survive man has either had to modify the environment or change his mode of living. Insects have become adapted to the environment and are thus able to occur successfully in every nook and cranny on the earth's surface. No plants and few if any animals are immune to their depredations. The rate of reproduction in insects is phenomenally greater than that of man. One example: If the descendants of one pair of houseflies all lived and reproduced normally, in one summer season of five months they would give rise to a total of 191,000,000,000,000,000,000 individuals, a number too great to comprehend.

Why then is man not walking knee-deep in the carcasses of insects and starving to death as a result of their depredations? The very feature (adaptability) that makes insects specifically supreme to all other animals often operates to their detriment. Sudden

changes in the climatic and edaphic features in nature result in the mass destruction of billions of individuals. They are constantly being attacked or preyed upon by other insects, animals, plants, and by man. Man has with varying degrees of success waged an uninterrupted battle against insects from the beginning of his history. He has been forced to devote an increasing amount of time and money toward keeping these competitors in check. Even though this has been accomplished with varying degrees of success and with the expenditure of tremendous sums of money, the annual losses caused by insects still run into billions of dollars. The cotton boll weevil for instance is responsible for an estimated \$400,000,000 in annual loss and this is only one of the 600 or more injurious species of primary importance that are known to occur in North America. It is, therefore, no wonder that we have people who advocate the wholesale, complete, and indiscriminant destruction of all insects. Even if this impossible task were to be attempted, man would only be bringing about his more rapid annihilation. Flowering plants that require cross pollination and which make up a large part of our diet would soon disappear from the earth's surface due to lack of fertilization. Our stock animals would die from lack of forage and we would be destroying the beneficial as well as the harmful species.

What then is the solution and the best program to be followed in attacking these incipient masters of the world? A controlled and directed program against specific insect pests utilizing insecticides and encouraging other insects and animals to aid us in the battle. Cultural planning in agriculture and cleanliness around man's habitations does much to alleviate the problem. Like the age-old proverb, we have great difficulty living with the insects, but at the same time we cannot do without them.