

VOA Special English Agriculture Report

RESEARCHER EDWARD KNIPLING

This is Bill White with the VOA Special English Agriculture Report.

A leading American research scientist died last month at his home in Virginia. Edward Knipling was 91 years old.

Mr. Knipling was a world famous expert in the study of insects. Most of his work was done for the Agricultural Research Service, the chief research agency of the United States Department of Agriculture.

During his lifetime, Mr. Knipling received many awards, including the National Medal of Science and the World Food Prize. Last year, Progressive Farmer magazine named him among 21 scientists who most influenced American agriculture in the past 100 years.

Mr. Knipling developed effective ways to control insects without using harmful chemicals. His efforts resulted in the disappearance of the wild screwworm population from North America. This has helped to prevent hundreds of millions of dollars in losses to farmers around the world.

The screwworm fly lays its eggs in cuts in the skin of cows and other farm animals. When the young insects are born, they feed on the living tissue of the animals and cause serious wounds. Unless treated, an adult cow can die within a few days.

Mr. Knipling and another American researcher, Raymond Bushland, developed a method to stop the spread of the insects. They used radiation to make male screwworm flies

unable to reproduce. Then they released the treated males to mate in the wild with fertile female flies. The eggs from the females could not become fertilized and did not produce young screwworm flies. As a result, the number of the insects dropped sharply.

This method is now used worldwide to kill other insects harmful to agriculture, such as Mediterranean fruit flies. In Africa, the method is used to control the tsetse fly, which spreads sleeping sickness.

Mr. Knipling also helped develop the idea of using some kinds of insect enemies to control harmful insect populations. Some harmful insects are more easily treated with biological controls than with chemical ones.

This idea has grown to include other methods that do not harm the environment. They include interference with the mating of insects and the use of natural substances to control insects.

This VOA Special English Agriculture Report was written by George Grow. This is Bill White.

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