The traditional method of pest control, which gave way to insecticides, depended on natural factors like weather changes, insect-eating birds, and insect parasites. The use of man-made insecticides, although effective, has caused a disturbance of natural balance and the loss of many natural predators.

An important breakthrough in efforts to reduce drastically or to eliminate insecticide use—and thereby reduce environmental pollution—came with the radiation-sterilized-insect-release method. In this "sterile-male technique," the pest is mass produced in the laboratory, exposed to just enough radiation to render it sterile, and then released in infested areas. The sterile pest competes effectively with its wild counterpart and mates but produces no offspring, thus the population dwindles. In the Southeast applications of the technique have virtually eliminated the screwworm that infests livestock.

A similar campaign directed by the U. S. Department of Agriculture is under way in the Southwest. A so-called "factory" at Mission, Tex., produces and sterilizes screwworm flies in an around-the-clock operation. These flies are released in areas where the pest has been identified. The technique has drastically reduced the livestock damage by the screwworm, which used to total many millions of dollars each year. Although success is not so complete as in the Southeast, eventual eradication of the screwworm in the Southwest is expected.

The sterile-insect-release technique—or as it is frequently called, the sterile-male technique—is now being used in efforts to eliminate or control other insects that threaten livestock and crops. Particularly promising are the preliminary results in control of certain fruit flies.

The Department of Agriculture is working hard with these methods to knock out the codling moth apple pest in the Northwest; the pink bollworm, which attacks cotton in the Southwest and in California; and, the most destructive of all agricultural pests, the earworm, which affects both corn and cotton. If we could avoid using insecticides on cotton alone, we would reduce by one-third the total amount of insecticides used in this country.

Overseas hundreds of millions of dollars damage is done each year to citrus and other fruit by the Mediterranean fruit fly, which lays its eggs in the fruit. The sterile-insect-release technique has achieved