You just can’t castrate enough flies,” their colleagues said. Edward F. Knipling and Raymond C. Bushland, scientists with the USDA Agricultural Research Service, proposed their “Sterile Insect Technique” for pest control in the late 1930s to skepticism and even ridicule. But their work has since been called “the greatest entomological achievement of the [20th] century.”

In 1954, Knipling & Bushland carried out the first successful test of their technique, eradicating the screwworm fly from the small island of Curacao. USDA, with help from state governments and ranchers themselves, would go on to eradicate the pest throughout the U.S. by 1982 and down to Panama by 2006, where today USDA helps maintain a border zone to prevent reinfestation from South America.

The eradication of the screwworm fly in the U.S. and Central America is estimated to have saved livestock producers and consumers billions of dollars over the past half century. And Knipling’s and Bushland’s Sterile Insect Technique continues to inform ongoing fights against disease-vector and agricultural pests including various species of mosquitos, fruit flies, and the tsetse fly.

Researcher: Dr. Edward F. Knipling
Employment: USDA Agricultural Research Service
Graduate Institution: Iowa State University
Undergraduate Institution: Texas A&M University

Researcher: Dr. Raymond C. Bushland
Employment: USDA Agricultural Research Service
Graduate Institution: Kansas State University
Undergraduate Institution: South Dakota State University
ABOUT THE AWARD

THE BRAINCHILD OF CONGRESSMAN JIM COOPER, the Golden Goose Award recognizes the enormous and often unanticipated impacts that obscure or odd-sounding federally funded research has had on society—from life-saving medical treatments to game-changing social and behavioral insights to major technological advances.

Awardees are announced throughout the year, followed by an award ceremony each fall in Washington, D.C.

The Golden Goose Award is supported by generous donations from professional societies, colleges, universities, and corporations; and enjoys bipartisan support from Members of Congress in the House and Senate.

“Few things are as important as scientific research to building a better future.”

— Rep. Jim Cooper