



SCREWWORM ERADICATION IN THE AMERICAS - OVERVIEW

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Screwworms (*Cochliomyia hominivorax*, Coquerel) had long been present in the Americas and recognized as a severe animal pest. However, not until 1933, when screwworms crossed the Mississippi River for the first time into the Eastern United States was it recognized as having a tremendous economic impact on livestock production. At that time the research community became interested in control and eradication measures for this economic pest. Ideas on such measures were being developed when all work was suspended because of World War II. Following the war interest once again turned to screwworm control and eradication and the development of the sterile male technology (SIT). This work culminated in a successful eradication of the Island of Curaçuo in 1954. This success led to the successful program in the Southeastern United States from 1957-1959. The livestock producers in the Southwestern United States watched the eradication efforts in the Southeast with much interest. Following the program in the Southeast a screwworm eradication program was begun in the Southwest United States in 1962 and the U.S. was declared Screwworm-Free in 1966. The plan at that time was to maintain a sterile fly biological barrier, by weekly dispersal of sterile flies, along much of the border between the two countries to prevent the migration of fertile flies from Mexico into the United States. In addition, animals were inspected and dipped before entering the United States from Mexico. However, cases continued to occur. Due to these continued outbreaks and interest of the Mexican livestock producers to extend the eradication program into Mexico, it was decided to move the barrier to the Isthmus of Tehuantepec. This location would be more economical (a 190 km width at compared to 2,400 km at the United States-Mexico border) to maintain and that a barrier farther from the U.S. border would afford more protection for the United States. An agreement was signed on August 28, 1972, to form the Mexico-United States Commission for the Eradication of Screwworms (Commission). The Commission's objective was achieved in 1984. The barrier at the Isthmus of Tehuantepec divided the country, with livestock producers to the south claiming the government was showing favoritism to producers north of the barrier. Further studies showed that there was a much better site for a permanent biological barrier in Panama. This location extending from the Panama Canal to the border with Colombia would require only 40 million sterile flies per week, compared to 150 million per week at the Isthmus of Tehuantepec. Following indications of interest in screwworm eradication from all Central American countries and Panama, a plan was developed in 1985 to extend the Screwworm Eradication Program through Central America and establish a permanent biological barrier in the eastern half of Panama. Mexico was declared Screwworm-Free on February 25, 1991, Guatemala May 20, 1994, Belize May 22, 1994, El Salvador June 19, 1995, Honduras August 6, 1996. Nicaragua is free of screwworm and expected to be declared so in 1998. Screwworms are well controlled in Costa Rica and an eradication program has begun in Panama. All of Central America is expected to be free by the end of the year 2000.