FIELD OPERATIONS IN MEXICO

Robert E. Reichard

Co-director, Comision Mexico-Americana para la Erradicacion
del Gusano Barrenador del Gando, Leibnitz No. 20, Mexico, D.F., 06000

This prototype and most successful application of the sterile male technique has led to the eradication of a major livestock pest from most of a continent. What a pleasure it is to join you in celebration of this unique accomplishment.

Those of us who are associated with this program won't lose sight of the fact that the most important factor in the program's success has been the production of consistently high numbers of consistently high quality sterile flies. Nevertheless, other efforts, equally impressive in their scale and complexity, were necessary to get the job done. When Mexico and the U.S. joined forces to eradicate the screwworm to the Isthmus of Tehuantepec in southern Mexico, it was necessary to adapt field program strategies and operations used in the U.S. to fit the different logistical, cultural, geographic and communication realities of Mexico.

This will be a brief summary of the evolution of the strategies which contributed to the success of the screwworm program. There were times when neither fly numbers nor quality were optimal, but because of ever improving and continually better execution of what we will call field operations the program did not falter. For purposes of this presentation we will consider field operations as those activities outside the sterile fly production plant.

Transportation of Pupae

At the beginning of the program, a plan was initiated to use large aircraft that had been specially equipped to deliver this delicate cargo to far flung packaging centers in Mexico. This plan was abandoned when the mechanical problems of operating U.S. Government excess aircraft, combined with weather problems, particularly at the air field near the production plant, made consistent delivery of pupae unreliable. It was then decided to adapt refrigerated trailers for hauling pupae to the different packing centers. Whatever quality loss that the pupae may have suffered because of the increased time under chill was more than compensated for by consistency of delivery.

But there were problems to overcome. Even though hurricanes and landslides interfered with transport trailer movement, the dedication of those whose job it was to "get them there alive" kept losses and even delays to a minimum. When refrigeration units failed en route, ice was loaded on to keep pupae chilled.

Fly packaging centers—some as far away as Hermosillo, Sonora (2430 km. from the production facility)—soon were able to depend on regular delivery of pupae. The Methods Development department confirmed that quality suffered little because of the long trip. During the peak years of the program there was never any time when Commission pupae-haul trailers were not on the road, 24 hours a day.

Packaging Centers

At packaging centers, pupae were taken out of chill, machine distributed into boxes, and placed under temperature control to assure near 100 percent adult emergence by the time boxed pupae ultimately reached dispersion bases sometimes referred to as "distribution subcenters". A fleet of temperature controlled refrigerated trailers then took the pupae from the packaging centers to dispersion bases under a constantly changing regimen of programming.

Normally the tractor-trailers traveled at night so as to arrive early the next morning with flies that had just emerged. Dispersion flights were programmed for shortly after dawn when the weather was usually the most favorable. Because of bad weather, road problems, aviation gas shortages or other circumstances, itineraries would often change, sometimes at the last minute. Flies might have