

STERILE INSECT TECHNIQUE A PROVEN TOOL FOR COMBATting NEW WORLD SCREWORM



New World screwworm (NWS) is the larvae of the NWS fly (*Cochliomyia hominivorax*), which causes the painful condition NWS myiasis in warm-blooded animals, including livestock, wildlife, and humans. NWS was successfully eradicated from the United States in 1966 using a proven combination of surveillance, animal movement controls, sterile insect releases, and public outreach.

STERILE INSECT TECHNIQUE

The sterile insect technique (SIT) is a proven tool for combatting the spread of NWS and protecting American agriculture and natural resources. Female NWS flies mate only once in their lives, so if they mate with a sterile male, they lay unfertilized eggs that don't hatch. Releasing sterile flies just outside of affected areas helps ensure flies traveling to new areas will encounter only sterile mates and will not be able to reproduce.

According to the USDA, releasing sterile flies is safe, environmentally friendly, and offers a sustainable, non-toxic alternative to chemical pesticides. It poses no risk to wildlife, livestock, or people. SIT, when paired with surveillance, movement restrictions, and education and outreach, is an effective tool for controlling and eradicating NWS.

DYED FLIES

To help officials distinguish between sterile and wild NWS flies, USDA dyes the sterile pupae, and the dye transfers to the sterile flies when they hatch. The fluorescent dye glows under UV light and may also be visible to the naked eye. If a sterile fly is captured in a trap, the dye allows animal health officials to quickly rule out the fly as a threat. If you spot a suspicious fly in areas where dispersals are occurring, it's likely a sterile fly that is beneficial to eradication efforts.

PRODUCER GUIDANCE

Sterile NWS flies in an area do not cause infestations and are a safe tool for reducing NWS egg production that may lead to infestations. The dispersal of sterile flies may not be noticed in day-to-day operations, but targeted dispersal of sterile insects and other tools are essential components of an effective strategy to fight NWS.

Monitoring animals on a regular basis for wounds and potential infestations is a critical complement to the SIT. Avoid creating unnecessary wounds, clean and treat any wounds, check for signs of myiasis, and report suspicious wounds or infestations to the New Mexico Livestock Board at 505-841-6161 as soon as possible.

LEARN MORE

For all accurate information from New Mexico agencies leading the response to New World screwworm, visit ScrewwormNM.org.

NMDA is coordinating with USDA-APHIS, New Mexico Department of Wildlife, New Mexico Department of Health, the New Mexico Livestock Board and NMSU Cooperative Extension Service to raise awareness, increase surveillance, and be prepared for rapid response.