New World Screwworm Sample Collection Protocol

This guideline is provided to assist veterinarians and animal health personnel in California with the safe collection, preservation, and submission of suspected New World screwworm (*Cochliomyia hominivorax*) specimens for official laboratory identification. Suspected detections must be reported to the California Department of Food and Agriculture (CDFA) and to the United States Department of Agriculture (USDA).

Supplies	• Disposable gloves • Forceps • 70% ethanol (preferred) or isopropyl alcohol for preservation • Coating-free, shatterproof vial or leak-proof specimen container (e.g., screw cap vials or red top tubes) • Sealable secondary packaging and absorbent material (e.g., zip-top bag with paper towels) • Sturdy cardboard shipping box (no envelopes or FedEx boxes) with two sides at least four inches long • VS Parasite Submission Form 5-38
Collection Procedures	1. Contact a State Animal Health Official (SAHO) to obtain a Foreign Animal Disease (FAD) number, a VS Parasite Submission Form 5-38, and a shipping label. 2. Using forceps, gently remove multiple larvae of different sizes from several areas of the wound(s), including the deepest, most active portion. 3. Each infested animal must have their own labeled vial. 4. Place a minimum of 10 larvae directly into a vial containing 70% ethanol (or isopropyl alcohol) so they are fully submerged. *Do not use formalin*. 5. Label the vial(s) clearly with permanent ink. 6. Seal vial cap(s) with tape, place vial(s) in a sealable secondary packaging with absorbent material, then place into a sturdy shipping box. 7. Include VS submission form 5-38 inside of box and outside of the zip-top bag. 8. Ship samples to NVSL (CDFA or APHIS VS will provide a shipping label): NATIONAL VETERINARY SERVICES LABORATORIES 1920 Dayton Avenue Ames, IA 50010 Telephone: 515-337-7514 **Note:** adult flies may also be collected—place them in a coating-free vial and submit them **dry** (no ethanol or isopropyl alcohol added). If fewer than ten larvae are present, submit all of them.

Documentation & Photos	• If possible, take clear photographs of the wound(s) and larvae before collection. • Complete the VS Submission Form 5-38 thoroughly, with as much history and information as possible. Images via CDC/DPDx
Reporting Suspected Cases of NWS	• Report fly larvae infestations immediately to the CDFA Animal Health Branch: - **Headquarters:** (916) 900-5002 - **Redding District:** (530) 225-2140 - **Modesto District:** (209) 491-9350 - **Tulare District:** (559) 685-3500 - **Ontario District:** (909) 947-5932 • You may also report suspected infestations to your state's USDA APHIS VS AVIC: ○ Animal Health Contacts
Resources & References	• USDA-APHIS NVSL — Parasite submission instructions (VS Form 5-38) • USDA SOPs for suspected NWS detections • Foreign Animal Disease Investigation Guide: New World Screwworm • CDFA NWS Fact Sheet