ANSC-PU-480
June 2026

The New World Screwworm (NWS) Threat to Swine Producers

Jeffrey Wiegert[1], Guilherme G. Verocai[2], Sonja L. Swiger[3], Phillip E. Kaufman[3]

Various livestock species, including pigs, are at risk of infestation in New World screwworm (NWS)-endemic areas. Myiasis due to NWS can impact general health and well-being of pigs and is potentially fatal depending on anatomic location, severity of infestation, and timing from diagnosis to proper treatment.

Introduction – The NWS Threat to Swine Producers

The New World screwworm (NWS), *Cochliomyia hominivorax*, is a parasitic fly whose larvae feed on living tissues of warm-blooded animals. Larval infestations (myiasis) can occur in any broken or damaged skin and cause rapidly progressing, painful wounds that can lead to serious injury or death.

Myiasis due to *Cochliomyia hominivorax* in a pig showing numerous maggots. *Courtesy Dr. Josue Lemuz, SENASA, Honduras*

In 1966, the NWS was successfully eradicated from the United States. This was done through the mass release of sterile male flies (sterile insect technique).

Producers can take several steps to stay ahead of the pest as NWS emerges in U.S. livestock production.

Various livestock species, including pigs, are at risk of infestation in endemic areas. Data from the current outbreak in Mexico shows that pigs are the third most affected species, after cattle and dogs. Swine kept in both outdoor and indoor production systems may be at risk.

Myiasis due to NWS can impact general health and well-being of pigs and is potentially fatal depending on anatomic location, severity of infestation, and timing from diagnosis to proper treatment.

Monitoring and Surveillance

Any break in the skin should be considered a potential risk site for myiasis when adult flies are active in an area. Therefore, swine should be inspected daily for the presence of potential wounds and clinical signs, at least until the wound site heals fully.

Signs of an NWS infestation on animals can include, but are not limited to:

- Wounds with abnormal appearance that progressively worsen
- Wounds with the smell of rotting tissue
- Head shaking and biting, licking, or rubbing at wounds
- Irritated or depressed behavior, including loss of appetite
- Visible fly larvae in wounds
- Wounds with bloody discharge

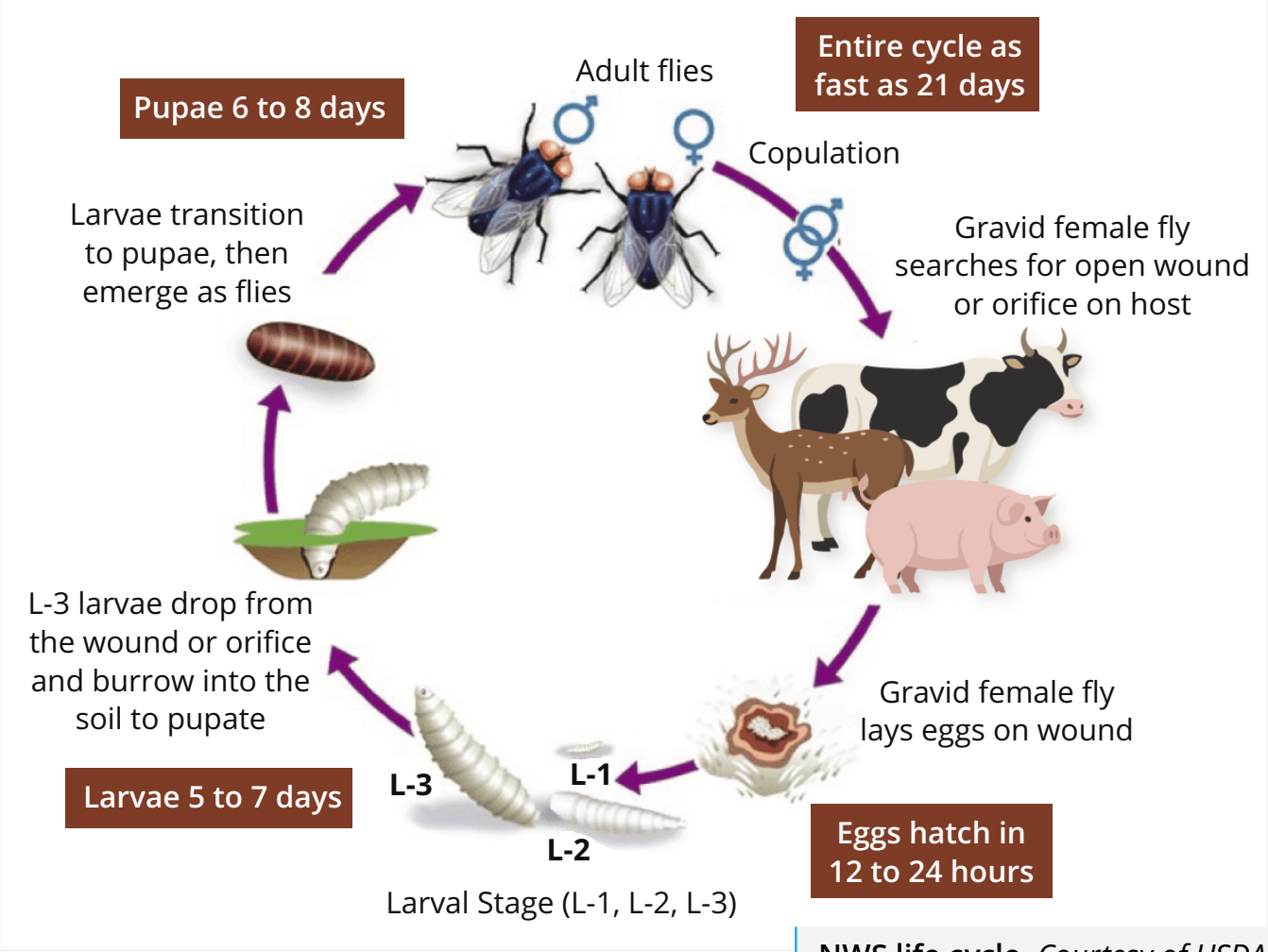
Management Practices and Risks

Various factors, including both routine management practices and pig injuries, can cause breaks in the skin and increase the risk of myiasis and should be considered when assessing potential exposure:

- Piglet processing, including ear notching or tagging, castration, tail docking, tattooing, or needle teeth clipping
- Sow/boar adult animal management, including vaccination, ear tagging, or animal introductions
- Any needle injection, regardless of the size of the needle or route of administration
- Umbilical sites in newborn piglets

- Skin abrasions or wounds from shoulder sores, fighting behavior, group mixing, rough flooring, sharp or broken feeders, pen structures, water drinkers, etc.
- External parasite irritation, including bites from ticks or lice, or rubbing sites due to ectoparasite presence
- Tusk trimming if a bleeding wound is created
- Poor hygiene or wound care that delays healing

Strategies that prevent or minimize skin breaks could also reduce the risk of NWS infestations. When possible, oral medication or vaccines are preferred over injections. For management practices in which wounds are unavoidable, use methods that cauterize or seal the tissue (such as heated tail-docking tools) to reduce bleeding and exposure of fresh tissue. Multi-day observation of known wound sites is critical to identify early and more treatable infestations.



NWS life cycle. *Courtesy of USDA*

Treatment

Consult with your local veterinarian immediately when faced with suspected NWS myiasis in pigs. If you do not already have a veterinary-client-patient relationship (VCPR) with a veterinarian, establish one immediately. Some treatment options can only be used if a VCPR is in place.

A veterinary professional should physically examine the animal and suspect maggot-infested wounds.

All maggots should be promptly removed and stored in 70 percent ethanol and immediately submitted for diagnostics. Veterinarians may submit up to 10 maggots to the National Veterinary Services Laboratories for identification (Specimen Submission, *https://www.aphis.usda.gov/sites/default/files/vs-form10-4.pdf*). All remaining maggots that are not submitted **MUST** be killed by immersion in ethanol or frozen. *Note: Maggots allowed to live could continue to grow and pupate, thereby turning into adults.

Practitioner removing fly larvae from the wound on the ear of an infested pig. *Courtesy Dr. Josue Lemuz, SENASA, Honduras*

After larval removal, the veterinary professional should thoroughly clean the wound with an antiseptic solution and debride necrotic tissue, if present. Various topical products may be used to promote healing and protect the wound site from fly activity, including permethrin-based sprays. Other medications may be necessary, depending on the severity of the case. Physical barriers that seal wound sites may be effective in preventing fly oviposition.

Currently, the topical powder Negasunt has been given an Emergency Use Authorization by the U.S. Food and Drug Administration (FDA) for the U.S. Department of Agriculture (USDA) to prevent and treat New World screwworm infestations in swine. However, macrocyclic-lactone-based products approved for use in swine may be effective (e.g., doramectin, ivermectin) for extra-label use by a licensed veterinarian.

Consult the FDA website for information on products with emergency use authorization or extra-label use, as new products are being approved on an irregular basis. New World Screwworm: Information for Veterinarians | FDA (*https://www.fda.gov/animal-veterinary/safety-health/new-world-screwworm-information-veterinarians*)

Conclusion

Pigs should be monitored regularly.

Early detection of NWS myiasis is essential for effective treatment and clinical recovery of affected pigs.

Daily inspection for wounds and proper care of existing wounds/lesions are necessary to avoid NWS infestation and re-infestation.

Please immediately isolate suspected animals and report instances of New World screwworm as follows:

- Livestock, Texas Animal Health Commission
  https://www.tahc.texas.gov/emergency/nws.html
- Wildlife, Texas Parks and Wildlife
  https://tpwd.texas.gov/huntwild/wild/diseases/screwworm/
- Small animals, your local veterinarian

Please send news and media inquiries to *news@ag.tamu.edu*.

[1] Instructional Associate Professor and Swine Extension Specialist, Department of Animal Science, Texas A&M University, Texas A&M AgriLife

[2] Associate Professor & Director, Parasitology Diagnostic Laboratory, Department of Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences

[3] Professor, Department of Entomology, College of Agriculture and Life Sciences, Texas A&M University, Texas A&M AgriLife

Texas A&M AgriLife is an equal opportunity employer and program provider.