

Nordion Technology to Help Control Spread of New World Screwworm in Mexico

Nordion's irradiator expertise is playing a key role in mitigating the spread of screwworms to protect the Mexican beef industry.

The New World screwworm (*Cochliomyia hominivorax*) is a species of parasitic fly that feeds on the flesh of warm-blooded animals. The screwworm flies lay eggs in wounds and body openings, and the eggs hatch into larvae that eat live tissue.¹

While the screwworm was eradicated in the United States and Central America in the 1960s through the application of the Sterile Insect Technique (SIT), the parasite reappeared in Mexico in 2024, posing a threat to the country's \$1.8 billion beef industry and endangering tens of thousands of jobs. This new outbreak led to a US halt on Mexican cattle imports, contributing to a surge in beef prices.²

The Sterile Insect Technique is essentially a form of insect "birth control" used to reduce the number of insects in subsequent generations, using very small doses of radiation to render the insects incapable of reproducing. Insects are irradiated in the pupal form, reared to adulthood, and then released. Because the insects are sterile, mating does not result in propagation of the species, and repeated cycles of SIT, with a sufficient number of sterile insects, can effectively eliminate a pest population. In fact, the New World screwworm is the first species upon which SIT was tested. SIT poses no risk to the environment or to public health and is considered one of the most environmentally friendly insect pest control methods developed.

In 2025, the Honourable Heath MacDonald, Canada's Minister of Agriculture and Agri-Food Canada (AAFC), visited Mexico to promote commercial collaboration between the two nations. This meeting followed Prime Minister Mark Carney's visit in September, which resulted in both the President of Mexico

and the Prime Minister elevating the relationship to Comprehensive Strategic Partnership and establishing a new 3-year work plan to help facilitate trade, promote investment, and improve economic security for both countries.

SENASICA, Mexico's National Service of Health, Safety and Agri-Food Quality, is a decentralized administrative body of the Ministry of Agriculture and Rural Development focused on preventing the spread of pests and diseases that affect the country's agricultural sector. At SENASICA, a dedicated team has been contributing to the national strategy to counter the spread of the screwworm since 2024.

SENASICA operates three irradiation facilities – all built by Nordion – to help them administer the Sterile Insect Technique, which they've been doing for decades, to protect their local agriculture, support the livestock industry, enable export, and ensure the safety of Mexican food products. The Mexican government is building a biosecurity laboratory as a Sterile Fly Production Plant to combat the New World screwworm in their livestock industry.

Late in 2025, SENASICA and the Mexican government, with the support of Agriculture and Agri-Food Canada and the Embassy of Canada to Mexico, approached Nordion for help in assessing their screwworm irradiation facility, originally built in 1979 but unused for many years after the initial eradication of the insect.



Given the urgency of the situation and the recently renewed cooperation between the two countries, Nordion quickly dispatched a technical team to Mexico to perform the assessment and made a proposal for significant upgrades to the facility. SENASICA and Nordion are now actively implementing these upgrades.

Nordion is the world's largest supplier of Cobalt-60, an isotope used as the key source of gamma radiation for SIT and the sterilization of single-use medical disposables, pharmaceutical components, implantable devices, and labware. Cobalt-60 is also used to irradiate food products and consumer goods for microbial reduction and to irradiate fresh produce for export. Cobalt-60 technology has a proven track record as a safe, effective, and sustainable irradiation method.

Beyond supplying Cobalt-60 to more than 40 countries around the world, Nordion has built more than 125 of the 300 large-scale gamma irradiation facilities in operation globally and produces specialized Cobalt-60 sources for the treatment of cancer and other diseases.



1. <https://www.cdc.gov/new-world-screwworm/media/pdfs/2025/09/NWS-What-You-Need-to-Know-cleared-508.pdf>
2. <https://www.latimes.com/business/story/2025-12-19/cattle-ban-at-border-sparks-beef-shortages-plant-closures>

About Nordion

Nordion®, a Sotera Health company, is a leading provider of medical gamma technologies used for the prevention and treatment of disease and infection. Nordion's products are used daily by pharmaceutical and biotechnology companies, medical device manufacturers, hospitals, and research laboratories. Nordion supplies products to more than 40 countries and is committed to Safeguarding Global Health®.

Safeguarding Global Health® – with every Cobalt-60 source we supply.

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