

USDA APHIS
New World Screwworm (NWS) Grand Challenge
Award Selections

June 2026

Topic 1: Projects that Enhance Sterile NWS Fly Production

ID	Recipient	Title
APP-113391	Trustees of Indiana University	An RNAi Yeast Supplement for SIT Optimization
APP-113400	Texas Tech University	Enhancing the New World screwworm sterile insect technique with autodissemination approaches
APP-113411 ⁺	North Carolina State University	Next-Generation Male-Only Screwworm Strains for Enhanced Sterile Insect Technique Programs
APP-113449 ⁺	Hive Biosystems Inc.	OptoSIT: A Multi-Modal Photonic Platform for Radiation-Free Sterile Insect Technique, Automated Trap
APP-113451 ⁺	Wasik Associates, LLC	Electron Beam Enabled Area-wide Management using Sterile Insect Technique (EBEAM-SIT)
APP-113469 ⁺	AcceleRAD Technologies, Inc.	Enhancing Sterile New World Screwworm Fly Production Through High-Throughput Electron-Beam Irradiation and Automated Tray Handling
APP-115285	Precision X-Ray, Inc.	Optimized Sterilization with X-ray in Batch and Automated Modes, featuring Additive X-Ray Irradiation Stacking
APP-114306 ⁺	Novoclade Inc.	Transgene-Free Male-Only Production in a Calliphorid Proxy Species to Enable Improved Sterile New World Screwworm Programs
APP-113429	University of Minnesota	M3: Make, Measure, and Model sterile male screwworms with hyper-active sex drives.
APP-113310 ⁺	Texas A&M AgriLife Research	Maximizing Sterile Insect Technique Efficacy via Optimizing Electron Beam Irradiation Conditions for Screwworm Control

⁺Indicates that APHIS recommends funding with revisions.

Topic 2: Projects that Develop Novel NWS Traps and Lures

ID	Recipient	Title
APP-113285	BanfieldBio Inc.	SOMETHING OLD AND SOMETHING NEW: CHEMICAL ECOLOGY AND MANAGEMENT OF THE NEW WORLD SCREWWORM
APP-113422	University of Florida	Harnessing fly- and wound-associated microbiomes to develop microbial attractants for effective detection and monitoring of NWS
APP-114323 ⁺	Yale University	Novel NWS Lures from Odor Receptors

ID	Recipient	Title
APP-114351 ⁺	Colorado State University	Enhancing Lure Specificity and Attractiveness for NWS Surveillance Using Microbially Produced Volatiles
APP-114311	The University of Texas at Arlington	An Integrated Framework for Next-Gen NWS Surveillance: Utilizing Smart Trap Technology, Targeted Lures and Public Reporting Networks

⁺Indicates that APHIS recommends funding with revisions.

Topic 3: Projects that Develop and Increase Understanding of NWS Therapeutics/Treatments

ID	Recipient	Title
APP-113288 ⁺	Texas A&M AgriLife Research	Applying Lessons from the Honduras New World Screwworm Outbreak to Strengthen U.S. Preparedness
APP-113346	Texas A&M Engineering Experimentation Station/Texas A&M University	Botanical–Synthetic Synergy for New World Screwworm Control: Efficient Foam, Spray, and Immersion
APP-113452	Arkion Life Sciences	Minimum risk insecticide to combat New World screwworm in U.S. livestock and cohabitant wildlife
APP-113468	University of Notre Dame du Lac	Nitisinone as a Dual-Action Tool for Adult and Larval Screwworm Control (NADA-Screw)
APP-114289	Texas A&M AgriLife Research	Development of a Nanomaterial-Enabled dsRNA Biopesticide for Sustainable Control of New

⁺Indicates that APHIS recommends funding with revisions.

Topic 4: Projects that Develop Other Tools to Bolster Preparedness or Response to NWS

ID	Recipient	Title
APP-000008 ⁺	USDA-ARS, AMRU	A viable Push-Pull strategy to improve SIT efficacy and prevent NWS' spread into the US
APP-000013 ⁺	Sandia National Laboratories	SCOPE: Screwworm Control via Orthogonal sensing for Prevention and Early-detection
APP-111300 ⁺	Entomology Department of Texas A&M University	Investigating plant and vertebrate encounters in addition to potential biological controls of New World screwworm
APP-112287 ⁺	Texas A&M AgriLife Research	Sentinel surveillance and rapid molecular confirmation for New World Screwworm across livestock
APP-113283 ⁺	The University of Texas Medical	Building Preparedness and a Resilient Response to New World Screwworm and Other Arthropods of Veterinary Importance

ID	Recipient	Title
	Branch at Galveston	
APP-113299	Texas A&M AgriLife Research	Early wound detection using AI-enabled, multimodal New World Screwworm surveillance on beef and dairy operations
APP-113312	Texas A&M AgriLife	Non-invasive and non-destructive sensing of screwworm larvae and larval sex determination
APP-113335	University of Arizona	PREP-NWS: Preparedness through Research, Extension, and stakeholder Partnerships for New World Screwworm in Arizona
APP-113344 ⁺	Kansas State University	Development of Rapid, Field-Deployable Surveillance and Diagnostic Tools for Early Detection of New World Screwworm
APP-113354 ⁺	UC Davis Weill School of Veterinary Medicine	Smart Surveillance for Screwworm: Deploying Cutting-Edge Detection Technologies Across State Networks
APP-113357 ⁺	Virginia Polytechnic Institute and State University	Next-Generation Technologies for New World Screwworm Preparedness: Advanced Forecasting, Precision Surveillance, and Social Response
APP-113365 ⁺	Louisiana State University AgCenter	Engineering symbiont-mediated RNAi for New World screwworm control
APP-113369	The University of Texas Medical Branch at Galveston	Rapid Field Surveillance and Early Detection of New World Screwworm Using AI-designed Enzymatic
APP-113416 ⁺	The University of Texas Rio Grande Valley	Developing new tools for screwworm fly monitoring and response in south Texas - drone technology
APP-113423	University of Hawaii	Autodissemination of insect-killing fungi to control New World Screwworm
APP-114335	Auburn University	Physiological and Isotopic Diagnostics for Sterile Insect Performance and NWS Risk Forecasting
APP-114338	The University of Pennsylvania	Detection Dogs as a Surveillance Tool for Locating Soil-Stage New World Screwworm Using Proxy
APP-115286	NC State University, Center for Integrated Pest Management	Developing a forecast-informed management framework for Sterile Insect Technique (SIT) prioritization to Prevent New World Screwworm Establishment
APP-115318 ⁺	National Cattlemen's Beef Association	New World Screwworm Producer Identification Training Module and Supporting Public Relations

ID	Recipient	Title
APP-115323 ⁺	Minnesota Board of Animal Health	From Detection to Action: Advancing Early Identification and Response to New World Screwworm

⁺Indicates that APHIS recommends funding with revisions.