



Animal and Plant Health Inspection Service and Climate Change



APHIS and Climate Change

The Animal and Plant Health Inspection Service (APHIS) helps safeguard U.S. agriculture and natural resources from animal and plant pests and diseases. As part of this mission, APHIS promotes the health and availability of affordable food for consumers while ensuring that farmers, ranchers, and other stakeholders can thrive and engage in safe domestic and global agricultural trade.

Climate change can increase the chances that exotic animal and plant diseases, invasive species, and agricultural pests are introduced and spread throughout the United States—potentially elevating risks to our Nation’s food security and human health. APHIS conducts in-depth analyses and planning to anticipate these changes and how they may affect its programs, policies, and regulations designed to protect plant and animal health.

Plant Health

Climate and climate change are increasingly important considerations in APHIS’ development of policies, predictive modeling, risk assessment, and operational strategies to prevent or mitigate the impact of pests and diseases on U.S. plant resources. As an example of the impact extreme weather events can have, the bacterial disease citrus canker, spread by wind-driven rain, became widespread in Florida after an unprecedented hurricane season that overwhelmed efforts to eradicate the disease. Working with USDA and university researchers, APHIS scientists conducted studies to better understand the impacts of climate change scenarios on citrus canker, resulting in a redesign of the regulatory approach and identification of new measures for crop protection. APHIS’ Citrus Health Response Program continues to maintain a regulatory approach that protects trading partners and other citrus-producing States from citrus canker, as well as from other citrus diseases and pests.

Animal Health

APHIS is involved in a range of animal health projects that gauge the influence of climate change on the spread and potential impact of vector-borne diseases (diseases transmitted by insects such as ticks, midges, and mosquitoes). These diseases include bluetongue, caused by a virus (BTV) that infects ruminants such as sheep, cattle, and deer. Until recently, BTV had been largely limited to insect vector and ruminant populations in the southeastern United States, California, and the Pacific Northwest. However, over the past 35 years the disease’s insect vector has spread into central and north-central States, likely as a result of climate change. APHIS is working closely with other USDA agencies to monitor these changes in an effort to devise early warning systems, develop better-informed options for vector control and animal protection, and conduct research on disease pathogens (including zoonotic agents that can also affect human health) and vectors that may be affected by climate change.



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Trade

Climate disruptions in other countries can significantly influence the kinds and quantities of foreign pests and diseases that might threaten the United States. APHIS works closely with other Federal agencies, universities, and international partners to maintain up-to-date information on shifts abroad in weather and climate, as well as pest and disease outbreaks, so that import requirements and inspection practices continue to afford the best protection possible. APHIS also supports and participates in discussions on climate change with foreign plant health counterparts.

Emergency Preparedness

APHIS maintains extensive animal and plant health networks to deal with pest and disease emergencies, and supports State and local governments as they assist individuals in emergency situations with household pets and service animals. However, severe hurricanes, floods, droughts, and wildfires may present a challenge to APHIS emergency resources and activities. Accordingly, APHIS is working to integrate climate change modeling into its emergency preparedness and biosecurity hazard planning to enhance its ability to predict, mitigate, and adapt to adverse conditions caused by climate change.

Collaboration

APHIS collaborates with a broad network of Federal, State, Tribal, local, academic, and business community partners, as well as other stakeholders, to ensure informed and coordinated responses to animal and plant health issues that incorporate considerations of climate change. This collaboration includes outreach and communication provided according to the National Environmental Policy Act (NEPA). As appropriate, APHIS NEPA analyses address climate change as part of the environmental review of Agency actions.

More information is available on the APHIS Web site at www.aphis.usda.gov.

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