

A report to the Ranking Member; Subcommittee on Interior, Environment, and Related Agencies; House Committee on Appropriations

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What GAO Found

The U.S. Department of Agriculture (USDA) has taken few actions to enhance the resilience of farms and forests to the climate-related risks of diseases and pests, and funding and staffing supporting those actions have decreased. In late 2023, USDA officials told GAO that the risks of diseases and pests had not been fully integrated into the department's climate resilience planning at all levels and that USDA planned to do so in the future. At that time, USDA provided limited information and technical assistance on individual diseases and pests to farmers and land managers. For example, USDA's Climate Hubs provided some support for research on the effects of climate change on specific diseases and pests and developed models for forecasting potential outbreak risks, including the southern pine beetle. However, key programs that provide information and assistance to farmers and land managers to help manage the climate-related risks of diseases and pests—such as USDA's Climate Hubs—have lost staff and face planned funding cuts. In April 2026, GAO requested updated information from USDA about the status and impact of these cuts, but the department did not provide the information.

Examples of Climate-Related Risks of Diseases and Pests



The range of corn earworm is shifting north, threatening crops in western and midwestern states.



The spotted lanternfly is spreading rapidly from eastern states into the Midwest and threatens grape-producing regions across the U.S.



The southern pine beetle is spreading into northeastern forests, damaging ecosystems and creating additional fire risk.



The northern spread of sudden oak death in forests in the Pacific Northwest threatens the nursery, logging, and shipping industries.

Sources: Penn State Extension; Scott Bauer, USDA Agricultural Research Service, Bugwood.org (corn); Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org; Julie Urban (Penn State University) (lanternflies); Texas A&M AgriLife, Bugwood.org; Ronald F. Billings, Texas A&M Forest Service, Bugwood.org (beetle); USDA Animal and Plant Health Inspection Service; USDA Forest Service (oak). | GAO-26-106756

Development and implementation of a national strategy would help USDA enhance the resilience of farms and forests to the climate-related risks of diseases and pests, according to GAO's analysis of relevant literature and interviews with knowledgeable stakeholders. A nationwide assessment to identify and assess these climate-related risks is a necessary first step to developing a national strategy to enhance resilience to diseases and pests. A national strategy, informed by a nationwide risk assessment, could help USDA direct its resources effectively to ensure that farmers and land managers get the information they need to enhance their resilience. It could also help limit federal fiscal exposure to climate-related risks to the federal crop insurance program and other disaster assistance appropriations. Further, a national strategy could inform congressional decision-making by identifying USDA's capacity needs to ensure the strategy is implemented effectively.

Why GAO Did This Study

Diseases and pests have large economic impacts on U.S. natural resources—including agricultural lands and forests. From 1960 through 2020, invasive species, including diseases and pests, cost the U.S. agricultural and forestry sectors at least \$550 billion.

According to experts, climate change will expand or shift the range of diseases and pests. This creates fiscal exposure—long-term costs and uncertainty regarding future spending—for federal crop insurance and disaster assistance programs. For example, the fiscal year 2024 Analytical Perspectives volume of the President's Budget—the most recent analysis of the federal crop insurance program's fiscal exposure to climate change—estimated the federal government could spend an additional \$300 million to \$2.2 billion annually on crop insurance payments because of changes in the climate.

GAO was asked to review federal efforts to enhance the resilience of farms and forests to climate-related risks of diseases and pests. This report examines (1) USDA's efforts in this area and (2) options to enhance them.

GAO reviewed laws, regulations, and agency guidance related to diseases and pests; analyzed literature; interviewed 84 knowledgeable stakeholders including USDA, state, and local officials and academic researchers; and conducted site visits to eight states to observe the impacts of selected diseases and pests.

What GAO Recommends

GAO is recommending that USDA (1) conduct a nationwide assessment of the climate-related risks of agricultural and forest diseases and pests and (2) develop a strategy to manage identified risks. USDA did not provide a written response that either agreed or disagreed with the recommendations.