

Why GAO Did This Study

Honey bees and other managed and wild, native bees provide valuable pollination services to agriculture worth billions of dollars to farmers.

Government and university researchers have documented declines in some populations of bee species, with an average of about 29 percent of honey bee colonies dying each winter since 2006. A June 2014 presidential memorandum on pollinators established the White House Pollinator Health Task Force, comprising more than a dozen federal agencies, including USDA and EPA.

GAO was asked to review efforts to protect bee health. This report examines (1) selected USDA agencies' bee-related monitoring, research and outreach, as well as conservation efforts, and (2) EPA's efforts to protect bees through its regulation of pesticides. GAO reviewed the White House Task Force's national strategy and research action plan, analyzed data on USDA research funding for fiscal years 2008 through 2015, reviewed EPA's guidance for assessing pesticides' risks to bees, and interviewed agency officials and stakeholders from various groups including beekeepers and pesticide manufacturing companies.

What GAO Recommends

GAO recommends, among other things, that USDA coordinate with other agencies to develop a plan to monitor wild, native bees, and evaluate gaps in staff expertise in conservation practices, and that EPA identify the most common mixtures of pesticides used on crops. USDA and EPA generally agreed with the recommendations.

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BEE HEALTH

USDA and EPA Should Take Additional Actions to Address Threats to Bee Populations

What GAO Found

The U.S. Department of Agriculture (USDA) conducts monitoring, research and outreach, and conservation that help protect bees, but limitations in those efforts hamper the department's ability to protect bee health. For example, USDA has increased monitoring of honey bee colonies managed by beekeepers to better estimate losses nationwide but does not have a mechanism in place to coordinate the monitoring of wild, native bees that the White House Pollinator Health Task Force's May 2015 strategy directs USDA and other federal agencies to conduct. Wild, native bees, which also pollinate crops, are not managed by beekeepers and are not as well studied. USDA officials said they had not coordinated with other agencies to develop a plan for monitoring wild, native bees because they were focused on other priorities. Previous GAO work has identified key practices that can enhance collaboration among agencies, such as clearly defining roles and responsibilities. By developing a mechanism, such as a monitoring plan for wild, native bees that establishes agencies' roles and responsibilities, there is better assurance that federal efforts to monitor bee populations will be coordinated and effective. Senior USDA officials agreed that increased collaboration would improve federal monitoring efforts.

USDA also conducts and funds research and outreach on the health of different categories of bee species, including honey bees and, to a lesser extent, other managed bees and wild, native bees. Consistent with the task force strategy and the 2008 Farm Bill, USDA has increased its conservation efforts on private lands to restore and enhance habitat for bees but has conducted limited evaluations of the effectiveness of those efforts. For example, a USDA-contracted 2014 evaluation found that agency staff needed additional expertise on how to implement effective habitat conservation practices, but USDA has not defined those needs through additional evaluation. By evaluating gaps in expertise, USDA could better ensure the effectiveness of its efforts to restore and enhance bee habitat plantings across the nation. USDA officials said that increased evaluation would be helpful in identifying where gaps in expertise occur.

The Environmental Protection Agency (EPA) has taken steps to protect honey bees and other bees from risks posed by pesticides, including revising the label requirements for certain pesticides, encouraging beekeepers and others to report bee deaths potentially associated with pesticides, and urging state and tribal governments to voluntarily develop plans to work with farmers and beekeepers to protect bees. EPA also issued guidance in 2014 that expanded the agency's approach to assessing the risk that new and existing pesticides pose to bees. The task force strategy also calls for EPA to develop tools to assess the risks posed by mixtures of pesticide products. EPA officials agreed that such mixtures may pose risks to bees but said that EPA does not have data on commonly used mixtures and does not know how it would identify them. According to stakeholders GAO interviewed, sources for data on commonly used or recommended mixtures are available and could be collected from farmers, pesticide manufacturers, and others. By identifying the pesticide mixtures that farmers most commonly use on crops, EPA would have greater assurance that it could assess those mixtures to determine whether they pose greater risks than the sum of the risks posed by individual pesticides.