USDA Announces Colony Collapse Disorder Research Action Plan

(*Beyond Pesticides*, July 19, 2007) In response to the recent declining bee colony crisis, U.S. Department of Agriculture Under Secretary for Research, Education and Economics Gale Buchanan announced on July 13, 2007 that USDA researchers have finalized an action plan for dealing with colony collapse disorder (CCD) of honey bees, **which includes pesticides** as a reason for the problem.

"There were enough honey bees to provide pollination for U.S. agriculture this year, but beekeepers could face a serious problem next year and beyond," Buchanan said. "This action plan provides a coordinated framework to ensure that all of the research that needs to be done is covered in order to get to the bottom of the CCD problem."

The action plan coordinates the federal strategy in response to CCD. It addresses four main components: (1) survey and data collection needs; (2) analysis of samples to determine the prevalence of various pests and pathogens, exposure to pesticides, or other unusual factors; (3) controlled experiments to carefully analyze the potential causes of CCD; and (4) developing new methods to improve the general health of bees to reduce their susceptibility to CCD and other disorders. Four possible causes for CCD are identified in the plan: (1) new or reemerging pathogens, (2) new bee pests or parasites, (3) environmental and/or nutritional stress, or (4) pesticides. Research will focus on determining which of these factors are contributing causes of CCD, either individually or in combination.

CCD became apparent as a problem beginning in the winter of 2006-2007 when some beekeepers began reporting losses of 30-90 percent of their hives. While colony losses are not unexpected during winter weather, the magnitude of loss suffered by some beekeepers was highly unusual. There is currently no recognizable underlying cause for CCD. The main symptom is finding no or a low number of adult honey bees present with no dead honey bees in the hive. Often there is still honey in the hive and immature bees (brood) are present.

Many scientists believe that pesticides, including imidacloprid, have been shown to disrupt the mobility, navigation, and feeding behavior of beneficial insects, and have been blamed for the decline in many insect populations, especially the honeybee.

Pollination is a critical element in agriculture, as honey bees pollinate more than 130 crops in the United States and add $15 billion in crop value annually.

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