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## Importance of protecting pollinators for our food supply

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Crops in the United States valued at over \$18.9 billion dollars per year require pollination. Worldwide the figure is over \$217 billion. Without bees to pollinate our grocery shelves would contain some boring food. I like pasta but some flavorful sauce to put on it sure is nice.

Although honey bees being the primary managed pollinator get a lot of attention, the native bees are also in danger. Native bees may nest in the ground or in stems or tubes made in wood by other insects.

Honey bees are the major managed pollinator. In today's agriculture the huge mono-crops require the pollinators be brought into the plots. For this to happen we need a strong beekeeping industry. There are almost 1,000,000 acres of almonds in central California that require almost 2 million colonies of honeybees for pollination. Most of them come from outside of California.

There are many food crops that require pollination. In addition the alfalfa seed requires pollination. Alfalfa is a major crop for hay. Hay is primary feed for dairy cattle thus our milk, cheese and meat is dependent on pollination.

Cotton is another crop requiring pollination. So even our clothing is impacted by pollinators.

Honey bees leave the colony to collect nectar which they turn into honey, pollen which is their protein source, water which they eat and use to evaporate to cool the hive and plant resin they bring in as medicine. They often travel up to 2.5 miles from their colony on foraging trips.

Bees can communicate with their sisters in the hive to tell them where they found nectar or pollen. They do a dance that can tell the direction, distance and sugar content of their find.

Honey bees are shipped around the country to help pollinate our food crops. They return the bees to the upper Midwest to make honey and recoup for the next pollinating trip. The most important thing that we can do is help the bees while they are in the upper Midwest.

When using pesticides be sure to read the label. You will find the "Bee Hazard" warning in the Environmental Hazards section of the label. It gives the level of toxicity to bees as well as spraying restrictions.



**Figure 1.** The new label has the red rectangle with a bee in it. This will direct you to the Bee Hazard section.

As pesticide applicators you can follow some simple things to help the bees.

1. Chose compounds that do not harm Bees.
2. Do not spray or allow drift to flowering plants.
3. Spray during times bees are not likely to be foraging.
4. When using systemic chemicals be careful around plants that may flower.