Top Six FAQs on Bees and Bee Health

1. Why are bees so important to U.S. agriculture?

About one-third of all food and beverages are made possible by crop pollination, mainly by honey bees. In the US, pollination contributes $20 billion to $30 billion worth of crop production yearly to agriculture. A decline in managed bee colonies puts great pressure on the sectors of agriculture reliant on commercial pollination services.[1]

Without pollination by bees, many members of the agricultural value chain would suffer. Consumers also would be affected. They would not have ready access to many foods they enjoy — like fruits and vegetables — because these foods are dependent on bee pollination.

2. What are the factors that affect bee health?

The science shows bee health is affected by many factors, including:

- Pests and diseases, in particular the parasitic *Varroa* mite, viruses carried by mites, and the fungus *Nosema ceranae* and other diseases.
- Loss of suitable habitats and poor nutrition.
- Unusual weather conditions.
- Errors in hive management and other beekeeping practices.
- Lack of genetic diversity in bee populations.
- Pesticide exposure.

This was documented in the May 2013 "Report on the National Stakeholders Conference on Honey Bee Health," released by the USDA and EPA and available at **www.ars.usda.gov/is/pr/beereport.htm**.

3. What are the benefits of seed treatments?

Seed treatments are an effective tool for combating the negative impacts of diseases, insects, nematodes and other pests at the time of planting and after. They help America's farmers produce higher quality crops, while minimizing impact to humans, animals and the environment.

More than 90 percent of all corn seed planted in the US is protected by neonicotinoids. These insecticides are among the most prominent crop protection products used in US agriculture today.

Modern agricultural technology and pollinators are both vital to our food supply. It's even more important we have treated seed to protect our food from insects that have the potential to devastate a crop.

4. How can we ensure seed treatments do not pose a risk to honey bees?

Scientific evidence clearly shows that bees and other pollinators can coexist safely with modern agricultural technology, such as neonicotinoid insecticides. But growers and others who work with treated seeds must practice careful stewardship. Most importantly:

- Be aware of the presence of honey bee hives, or flowering crops or weeds that would attract pollinators when planting.
- Be careful of dust-off when emptying a bag or box as well as planter exhaust.
- Follow planter recommendations for the use of talc or graphite and avoid excessive use of lubricants to minimize dust.

Go to the ASTA website at **www.seed-treatment-guide.com** for the comprehensive "Guide to Seed Treatment Stewardship", which includes valuable information concerning handling, transporting and storing treated seeds.

5. What is Syngenta doing to promote bee health?

Syngenta cares about the health of bees and their role as pollinators. Our business is about increasing crop productivity to feed a growing world population. To do this, we depend on biodiversity, including thriving pollinators. We remain committed to enhancing ecosystems everywhere we and our customers operate.

For more than 12 years, Syngenta has supported bee health through its Operation Pollinator initiative. Operation Pollinator is a global program that restores native pollinators in agricultural landscapes by creating essential habitats on farmland. In the US for more than three years, Operation Pollinator has been running in three states– California, Florida and Michigan – with the participation of growers and three universities. The goals are to increase biodiversity and the native-bee population, as well as improve growers' crop (fruits/vegetables) yield and quality. To learn more, go to **www.operationpollinator.com**.

In addition, Syngenta continues to conduct research to better understand bee health.

And Syngenta encourages and promotes good stewardship.

- We are a sponsor the "Pollinators and Pesticide Stewardship" Brochure, which can be ordered from the Center for Urban/Rural Stewardship (CURES) at **www.curesworks.org/home.asp**.
- We collaborated and sponsored the new "Guide to Seed Treatment Stewardship," available through ASTA at **www.seed-treatment-guide.com**.
- We continue to work with growers to ensure they are following best-management practices.
- For more information on environmental stewardship, go to **http://www.syngentacropprotection.com/Env_Stewardship/default.aspx**.

6. What can growers do to protect bee health?

Growers are well-known to be excellent stewards of the land. Following best-management practices (BMPs) is critical to maximize the benefits of seed treatments and protect bees around farm operations and fields.

It starts by reading and following all label directions associated with the use of any and all crop protection products.

But there's more. In addition to adhering to label instructions and carefully handling treated seeds, our industry must take an active role in communicating best practices to growers and beekeepers. Planting buffer areas that provide healthy habitats and biodiversity for bees and other pollinators is an important BMP.

To learn more about Syngenta's position on bee health, go to **www.plightofthebees.com**.

[1] USDA and EPA, "USDA and EPA Release New Report on Honey Bee Health," 2 May 2013.