Our Commitment to Bee Health

Providing Innovative Solutions for Agriculture Today and Tomorrow

- As our world population grows, so does the pressure to produce more food. Honey bees provide a vital benefit to agriculture through pollination of many food crops – a task only bees and a select few other insects can carry out.
- For more than 25 years, Bayer has been committed to environmental stewardship and the protection of bees and other beneficial insects. We fully support further research into the role of various potential pressures – including insecticides – on bee health.
- Scientists and regulatory authorities agree bee health is a complex issue, and researchers are continuing to seek answers to general honey bee colony declines. While the specific cause of these colony losses remains undetermined, several studies have indicated this delicate balance may be affected by a variety of factors, including introduced pests and parasites, microbial diseases, inadequate diet, bee management practices, habitat loss and loss of genetic diversity.

- For this reason, Bayer continues to explore new bee health solutions, including products designed to control the Varroa mite. This relatively new honey bee parasite is considered a significant factor in the decreasing number of honey bee colonies in Europe and North America. At the same time, these mites are rapidly becoming resistant to available treatments.

NEONICOTINOIDS – This Important Class of Insecticides Helps Farmers Manage Harmful Pests That Limit Crop Production and Quality

- Neonicotinoids have replaced many older agricultural chemicals because of their effectiveness in managing harmful pests and relatively favorable environmental profile.
- Clothianidin-related seed treatment applications in the U.S. increase corn yields by six to 14 bushels an acre, contributing between $2-5 billion to the U.S. economy.
- Clothianidin has been approved by EPA for use on corn, cotton, sorghum, soybeans and sugar beets. It is the active ingredient in Poncho® seed treatments, the leading seed-applied insecticide on corn in the United States. Over 90 percent of U.S. corn is treated with neonicotinoids (clothianidin and thiamethoxam).

NEONICOTINOIDS NOT LINKED TO BEE HEALTH ISSUES

- There has been no demonstrated effect on colony health associated with neonicotinoid-based insecticides. In fact, the EPA stated it “is not aware of any data indicating that honey bee declines or the incidence of CCD in the U.S. is correlated with the use of pesticides in general or with the use of neonicotinoids in particular.” (EPA response memo, 07/17/12)
- Bayer performs extensive lab and field studies to investigate the potential effects its products may have on beneficial insects by conducting risk assessments and implementing appropriate safeguards. Bayer will continue to practice sound product development and stewardship that recognizes and respects the important role of bees in our backyards, our communities, our crop fields and our world.

SEED TREATMENT TECHNOLOGY – A Significant Advance for Agriculture

Seed-applied insecticides – known as seed treatments – reduce potential risks to workers, minimize potential runoff to waterways and lower the overall amount of insecticide applied in the environment.

GROWING A HEALTHIER WORLD THROUGH AGRICULTURAL SUSTAINABILITY

Growers play an important role in helping protect pollinator health. These four recommendations for responsible stewardship practices and proper seed treatment management can help maximize the benefits for growers while supporting bee health and ensuring a healthy environment and abundant food supply for future generations.

GROWERS SHOULD "TREAT WITH *CARE*"

C Communicate: Be aware of bee hives next to planting areas. Communicate planting activities to beekeepers when practical.

A Awareness of wind: Be aware of wind speed and direction when planting and minimize off-site movement of dust from treated seed, particularly to areas pollinator-attractive with flowering crops.

R Help Reduce potential risk to pollinators by using Fluency Agent, a new seed lubricant for corn and soybeans.

E Ensure seed is planted correctly: Help protect sensitive environmental areas, especially those that are attractive to pollinators, birds and mammals, by cleaning planters and seed boxes to minimize dust release and ensure treated seed is planted at the proper depth, particularly at row ends and field corners.

The method of application (seed treatment) and the film coating (which covers the insecticide once it is applied to the seed) help ensure that products will not harm bee colonies when used according to label directions.

GOOD STEWARDS FOR A HEALTHIER WORLD

Proper seed treatments play an important role in sustaining our environment and maximizing the health of crops, our communities and your bottom line. That is why Bayer strongly recommends responsible stewardship principles that result in minimal impact of neonicotinoid seed treatments on people, animals and our environment.

Working side by side with all our stakeholders, we are committed to ensuring our seed treatment solutions result in success for everyone involved.

BAYER'S COMMITMENT TO BEES

Bees are an indispensable part of ecological systems. The overall health of bees, their performance and the development of bee colonies are major indicators of the condition of ecological systems. Bayer strongly supports the responsible use of neonicotinoids and is committed to product stewardship and research activities to promote and protect bee health. As part of this commitment, we launched our Bee Care Program – including two dedicated Bayer Bee Care Centers in the U.S. and Europe – to bring our extensive experience and knowledge in bee health under one coordinated initiative.

Looking ahead, Bayer will continue to practice sound product development and stewardship that recognizes and respects the important role of bees in our backyards, our communities, in our crop fields and on our planet.

For more information on Bayer's commitment to bee health, please contact the Customer Interaction Center at 1-866-99-BAYER or visit **www.bayercropscience.us/our-commitment/bee-health**.