

Honey Bee Colony Collapse Disorder

Yes, Honey bees are facing health challenges, historically winter losses have been somewhere between 10-15%. Currently the reported averages are between 30-40% and in some apiaries 100%. Bee health is a global issue, more so in the Northern Hemisphere than in the Southern Hemisphere.

Five years ago the Media started defining this as a "Colony Collapse Disorder". In 2012 there were two articles linking the bee health disorders to the exposure of neonicotinoid pesticides (imidacloprid, clothianidin, thiomethoxam, acetimidiprid) to pollinators.

So what is Affecting Bee Health?

Scientists are focused on the interactions of multiple factors:

- Parasites (*Varroa*; tracheal mites)
- Nutrition deficiencies
- Diseases (Nosema; bacteria; viruses)
- Beekeeping practices
- Pesticides (hives; agriculture)
- Genetic weakness

Use Direction Changes

New EPA requirements have specific foliar directions on the Neonicotinoid pesticides. Each of these products has a "Pollinator Protection Box" explaining the restrictions for use just below the Directions for use on the product label. The specific foliar directions have to include the bee icon and a referral statement.

Pest Management Professional Stewardship

- Risk is a function of Hazard Times Exposure
 - There is no exposure to bees with interior structural pest control unless bees and/or beekeeping equipment are present in the structure
 - Activity sites for structural pests and industry-standard application methods are typically not performed when pollinating insects are not present
 - There is minimal to no exposure to bees when exterior applications are not applied to blooming plants.
- Respect the label, these have been carefully designed and reviewed by regulatory authorities to ensure that all uses pose no unreasonable adverse effects to the environment
- If Applying where bee exposure is possible or blooming plants are close to the application site consider:
 - Apply in cooler temperatures- honey bees generally start foraging above 55 F. This is not always possible and some products are less affective at cooler temps
 - Reduce bee attractive blooming plants/weeds in the treated area
 - Spray when drying conditions are good
 - Apply around dusk when bees are less active
 - Be aware of wind speed and direction during application to minimize movement onto flowering plants and weeds
 - Communicate with bee keepers in the area if possible.
 - Certain Counties have a list of commercial Bee Keepers.

Proactive Strategies

Educate clients about the components of IPM and how IPM practices are applied to structural pest management

- Monitoring
- Identification
- Options for control and management
- Look for business opportunities to demonstrate consideration for pollinators e.g. working with beekeeping groups to capture swarms
- Programs for applicators
 - Be bee sensitive, inform and alert; always consider possible routes of exposure to non-pest bees
- Work with PCOC to ensure bee issues are being addressed in a way the users have access to much needed tools while protecting pollinators.

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