



Neonicotinoids
 What are “neonics”?
 Where are they used?
 What are the risks?

JUST THE FACTS

Neonicotinoids are...
 a modern class of insecticides chemically similar to nicotine that have been widely adopted by growers to manage some of their most destructive insect pests. These products have replaced older more toxic insecticides because of their effectiveness and favorable mammalian safety and environmental profile. The neonicotinoid family includes acetamiprid, clothianidin, imidacloprid, dinotefuran and thiamethoxam. Imidacloprid is the most widely used insecticide in the world.

All neonicotinoid products are classified as ‘general use’ and have been registered under EPA’s Conventional Reduced Risk Program due to their favorable toxicological profiles to humans and the environment.

What are they used for?
 Neonicotinoids are effective against sucking insects, soil insects, termites, whiteflies, turf insects, Colorado potato beetle and other insects. Neonicotinoids are used on many crops and ornamental turf and plants (in landscapes or nurseries). They are **very important for public health in**

controlling bed bugs and are also used in flea collars for pets. Crops that rely on neonicotinoids include corn, wheat, cotton, and canola. Products are also used as protective seed treatments.

Why do we need these products?
 Neonicotinoids are highly valued by agricultural and urban users in integrated pest management (IPM) programs. When used as sprays, neonicotinoids are more selective than many alternative insecticides. Because of their selective pest control, these products help ensure beneficial insects remain available to keep other potential pests in check. **Without neonicotinoids, users would be forced to rely on older, more toxic insecticides seriously hindering IPM and resistance management programs.**

What about toxicity?
 Neonicotinoids are classified by EPA for use by the general public. Neonic products have a signal word of either “Warning” or “Caution” identifying the product as moderately or slightly toxic. Neonicotinoids block a neuron pathway that is more abundant in

insects than warm-blooded animals, making these insecticides more selectively toxic to insects than mammals. **Protecting Pollinators**
 Honey bees and other pollinators are important not only to agriculture, but also to the gardens and landscapes that people enjoy in both urban and rural environments. As with many insecticides, neonicotinoids can be toxic to honeybees. Over the last several years, many steps have been taken to protect pollinators. EPA requires a bee advisory box on labels of neonicotinoid products to identify measures to take to reduce the risk to bees, developed a new policy aimed at protecting honey bees and released a pollinator risk assessment for neonics. Product labels use directions are now clearer and more precise. The revised labels include specific limits such as “Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen ...” **The label is the law.** If the use directions are followed, the risk to pollinators is significantly reduced.

