

## Whats Killing Our Honeybees

Most of you have heard of Honeybee Colony Collapse, researchers still are not exactly sure of why this happens. We do have facts and data that tell us a story. During the last several years statistics tell us 40-43% of all hives in the U.S. die. Laboratory test tell us that all the pollen and nectar collected by honeybees contain sub-lethal amounts of chemicals including insecticides, herbicides and other pollutants. Research tells us that none of the chemicals in these small amounts will kill an adult honeybee. But no research has documented what the cocktail of chemicals will do, nor what they do to a small bee larva.

A honeybee only lives about 6 weeks. Researchers tell us in a honeybees life it takes a bee about 5 weeks of work in the hive to break even. By break even I mean it will provide enough pollen and nectar to the hive to support another honeybee for 5 weeks. This means the surplus honey in the hive must be provided during the last week of its life.

Research also tells us the queens in our hives seldom live past 2 years, queens used to live for 4 to 5 years. The insecticides and other chemicals we put on just about every plant is shortening the queens life. If the chemicals in our environment also shorten the worker bees life to less than 6 weeks the hive would not be able to build enough reserves in the form of honey to survive the winter.

The most heavily treated crop or section of the environment is a residential lawn. More fertilizer and insecticides are applied to lawns (grass) than to commercial crops in the U.S. Yes, we are all part of the problem. In the U.S. 350,000 tons of insecticides are applied each year, 200 million tons of fertilizer.

Other than chemicals there are lots of other impacts on our bees. The U.S. has been invaded by a beetle from Africa, Small Hive Beetle, and a mite from Asia, Varroa. The Varroa mite does lots of damage to the bees on its own but it also carries viral and bacterial diseases. When you add these factors to the migratory nature of most large commercial beekeepers the stress on honeybee hives is just too much.

Ok, what is killing our honeybees? In my opinion all of above. The insecticides in the environment weaken the bee young and shorten there lives. The other chemicals like Roundup impact the quality of a bees life. The weakened bees are then attacked by mites and associated viral and bacterial agents. The result is death to almost half the bees in the U.S. every year. Beekeepers are desperately raising queens, splitting hives and trying to manage the Hive Beetle, Varroa Mite and other diseases.

You might ask well what can I do? Actually a lot. Reduce the chemicals applied to the yard, do we really need all the Weed & Feed. NEVER use a systemic insecticide, the insecticide concentrates in the nectar and pollen killing bees, butterflies and other pollinators. Don't use powder (dust) type insecticides like Seven dust, bees will pick this up like pollen and carry it to the hive. Let a few wild flowers grow, especially in the back yard. Remember the white clover that used to grow in your yard when you were a kid. Plant flowering plants even if it is not one that honeybees visit the butterflies, bumble bees or other native bees will. We all play a bigger part in a bees life than we think.

Len VanMarion  
Texas Master Beekeeper  
Texas Master Gardener