



## WHAT HAPPENS TO INSECTS WHEN TEMPERATURES CHANGE?

Fall is finally here after a pretty dry summer. I always look forward to fall because of the cooler weather, football and creative fall decorations in the landscape. The spectacular colors of autumn are something else that I enjoy. I was in my garden the other day enjoying the weather and thinking where do the bugs of summer go when the weather starts to change?

Those bugs reappear the next year when the temperatures start to warm up. Each species has developed some way to deal with changing temperatures or cold weather. We do know that some insects follow the example of the migratory birds and head south. The monarch butterflies eventually find their way to central Mexico where they overwinter in the mountain highlands near Mexico City. These are considered true migrating insects because the same individual monarch butterflies that migrate south for the winter return the next year.

Insects like leafhoppers and milkweeds bugs deal with winter by heading south as cold weather approaches as well. They reinvade the next year, but unlike monarch butterflies different individual insects return.

Most other insects stay in the same area year round. They simply find shelter. Insects such as ladybugs, cluster flies and boxelder bugs overwinter as adults in wall voids, attics and other home structures.

Many other insects spend the winter in immature stages as eggs. An example of this would be bagworms. Some survive as larvae underground. These would include cicadas and June beetles. Then you have those that survive as pupae which include the large silkworm moths.

Paper wasp queens and yellowjackets along with some mosquitoes are examples of insects that overwinter as adults. They seek out protected spots and become dormant until warm weather activates them again.

Insects are adaptive but winter conditions can affect their survival. These

conditions would include cold temperatures, extreme fluctuations in temperatures, how long cold temperatures continue, how protected the overwintering location is and snow cover.

The insect world is certainly an interesting one! It is all about survival.



Until next time, happy gardening!



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