## Yard and Garden - 07-25-09 - Ted Griess / Extension Horticulture Assistant

Did you hear the one about the minister who was teaching his second grade Sunday school class about the life of John the Baptist? He told them how John had lived in the wilderness eating only honey and locusts. Immediately a little girl asked, "Pastor, what are locusts?" He responded, "A locust is a grasshopper." The little girl quickly blurted, "I know what those are; my grandmother drinks them."

Cute as that joke may be, grasshoppers — especially when in great numbers — can create a serious problem for humankind. History is filled with stories about plagues of grasshoppers. I readily recall listening to my parents and grandparents talk about the hoards of destructive grasshoppers during the drought years of the 1930's.

Nebraska is host to over 108 species of grasshoppers. The diet of most grasshoppers includes large grasses, sedges and weeds; however, as the summer progresses, these critters often move to our yards and gardens. Four species of grasshoppers—the migratory, the differential, the twostriped and the redlegged — are those that wreak the most damage in the home landscape. Once there, they show a preference for flowers and some garden vegetables such as lettuce, beans and sweet corn. When high populations exist, most feed on nearly all garden vegetables as well as trees and shrubs.

Grasshoppers undergo three life stages: the egg, the nymph and adult. The female grasshopper lays her eggs in the soil, and depending on the species, can easily deposit over one hundred eggs at a time. Hatching time is influenced by warm temperatures. When the eggs hatch, the young, called nymphs, start feeding immediately.

The nymphs undergo five development stages called instars. After each instar, they shed their skin and grow larger. Grasshopper nymphs normally reach the adult stage in six or more weeks. It is during the nymph stage they are most vulnerable to insecticides as well as adverse weather. Extended cool temperatures (less than 65°F) and rainy weather can result in starvation for young nymphs.

Most grasshoppers in our area hatch in late June. They are now in the third and fourth instar stage, and it is a good time to incorporate management strategies. With heavy infestations, chemical control is the best alternative for eliminating grasshoppers. Below is a recommended list of active ingredients designed for grasshopper control in and around the yard and garden. As always, check the label for application instructions, rates and safety precautions.

carbaryl (available in several liquid or dry formulations) carbaryl (available as a bait formulation on wheat bran) acephate (available in several formulations) bifenthrin (available in several formulations) cyfluthrin (available in several formulations) esfenvalerate (available in several formulations) malathion (available in several formulations)

permethrin (available in several formulations) lambda cyhalothrin (available in several formulations) deltamethrin (available in several formulations

A great Neb-guide for controlling grasshoppers in yards and gardens can be found by logging onto the following website:

http://www.ianrpubs.unl.edu/epublic/pages/publicationD.jsp?publicationId=575

With all this nasty news about hoppers, one might wonder, what good are they? In many places around the world, grasshoppers are eaten as a source of protein. Do you remember watching the Olympics on television last summer? There, we saw Chinese food markets with grasshoppers served on skewers and eaten as snacks. I can't say I'll be eating any grasshoppers in the near future; however, I might try drinking one ©. With that in mind, here's another story.

A Texas farmer goes to Australia for a vacation. While there, he meets an Australian farmer and they begin talking. The Australian shows off his big wheat field, and the Texan says, "We have wheat fields back in Texas twice as large as that." As they walk about the ranch, the Australian shows off his herd of cattle. Immediately, the Texan says, "We have longhorns that are at least twice as large as your cows." Then the Texan sees a herd of kangaroos hopping through the field and asks, "What are those?" Quickly the Australian remarks, "Don't you have grasshoppers in Texas?" Touché.