

Beneficial Garden Insect ID, April 4-10

Planting a seed and watching a garden grow can be one of the most rewarding experiences. However, harmful insects can cause damage and destroy your crop within days and even in some cases overnight. The best tool for managing insects is to actively scout for individuals. Scouting allows you to apply management practices to reduce populations of harmful insects before an infestation and destruction of your garden. Scouting also allows you to ID what insects are present, so you don't waste your money applying insecticides on insects that do not harm your plants. In fact, most insects in your garden either don't harm your plants or may be beneficial by predated on harmful insects. Today's article is going to focus on describing and helping you ID some of the most common beneficial insects seen in Waller County gardens.

Lacewings

Can be common and are greenish to brownish in color with a length around $\frac{3}{4}$ inch. Wings are transparent. Lacewings nickname is aphid lions as they hunt and kill aphids and other small insects.



Lady Bug

This very popular and well know beetle is one of the most beneficial insects found in gardens. Over 475 species occur in North America and can come in a variety of colors. Both adults and larvae are predators of aphids, mealy bugs, mites, and scale insects.



Parasitic Wasp

These small wasps are less than 1/8 inch in length but don't let size fool you. Parasitic wasp have a lifecycle that is right out of a horror movie. Parasitic wasp larvae feed and pupate within a host insect such as aphids, whiteflies, scale insects, leaf miners and caterpillars. All that is left behind is the harmful insects corps with a circular hole. Some species larvae feed on the outside of the host by attaching to it and forming white cocoons.



Assassin Bugs

Assassin bugs vary from brown to brightly colored. Length is between 1/2 to 1 inch. The head is elongated with a beak that is used to inject venom into insects like flies, mosquitos, and aphids. There are over 160 species in North America and can cause a painful bite if handled.



Wheel Bug

Wheel bug is a type of assassin bug that is known for the crest on its thorax (middle section).



Big Eyed Bug

As its name suggests, this insect is known for its big eyes. Big eyed bug's favorite food is cinch bugs, small caterpillars, and other soft-bodied insects that can be found on the soil surface.



Earthworms

Earthworms are not an insect but are worth mentioning. Many people mistake earthworm castings as either damaging their soil/plants or castings are a sign of a harmful insect. Earthworms are beneficial as they aerate and reduce compaction in the soil.



This is by no means a complete list of beneficial insects found in the garden. Other beneficial insects include spiders, earwigs, tachinid flies, dragonflies, bees, praying mantids, and butterflies to name a few. If you are unsure of what insects you have, you can email a picture to the extension office or drop off a specimen.

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Deer Summer Food Plots , April 11-17

As the calendar rolls into summer months, beaches and cold drinks may be what is on everyone's mind, but if you own land, you should be planting your summer deer food plot. While summer food plots are not nearly as common or popular as winter food plots, the benefits of summer food plots to deer are just as important as a winter food plots. While it is a given available browse will decrease during the dead of winter, many landowners do not realize the same thing is true during the summer.

Summer food plots provide supplemental high-quality browse during a high stress time of year for deer and when natural browse may be lacking, especially during a drought year. During the spring deer can find plenty of high-quality browse from weeds, wildflowers, forbs, and other tender juicy plants. However, most of these plants are annuals and will wither by the time the dog days of summer arrive. In the fall deer have a buffet of mast to choose from once the acorns, berries, and nuts fall from the tree. Summer food plots fulfill the role of providing quality browse during the period between when spring annuals die back and before the fall mast crop drops. During June through August deer experience some of the highest stress levels on their bodies during the entire year due to does lactating, fawns developing, and bucks growing antlers.

Site selection for a summer food plot should be deeper soils and ideally a bottomland site that will retain higher soil moisture. Avoid planting on hill sides or deep sands. Bottomland sites are especially ideal for years when rainfall is lacking. 1-3% of your land should be planted in food plots so if you own 100 acres you should plant 1 to 3 acres of food plots. However, several small food plots located throughout your property will be utilized more by deer than one large food plot. Planting date should be between May 1 and June 30 with Memorial Day weekend being a good target date. Prior to planting a soil test should be conducted in February and seeds should be ordered at least a month or two before planting. Seed bed should be prepared several weeks before planting by applying herbicides to kill weeds and plowing the soil. Seed can be applied with a broadcast spreader. After spreading the seed, light disc or drag the soil to increase soil to seed contact. Rolling or packing the soil can also help with germination.

One of the biggest management considerations will be deciding what species to plant. An ideal species would be highly productive and preferred by deer. You also need to consider that different species grow at different rates and that deer preference may vary depending on the growth stage of the plant. In other words, it is recommended to plant multiple species in a food plot to ensure that during the entire growth period there is browse available that is preferred by deer. During the summer of 2021, I conducted a result demonstration of 5 commonly planted food plot species to determine productivity and deer preference. The results allowed the creation of a recommended seed mix for Southeast Texas summer food plots. A summer food plot should consist of 30% forage cowpeas, 30% millet, 25% lab lab, 10% sudan, and 5% lespedeza. This mix will help ensure your deer have preferred high quality browse throughout the summer months.



Wire Cages can be used to determine deer utilization and preference in food plots

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Use Cardboard to Stop Weeds in Your Garden, April 18-24

Have extra cardboard boxes from online shopping? Don't throw them away. You can reuse them in your garden or yard as a low-cost way to stop weeds and enrich your soil. Using cardboard as a weed barrier — or sheet mulching — is a simple, effective method that suppresses weeds and gradually enriches soil, said Jayla Fry, Texas A&M AgriLife Extension Service specialist and assistant professor in the Texas A&M Department of Horticultural Sciences. "This is a very straightforward technique," Fry said. "It's simple. Anybody can do it, and it works very, very well."

Sheet mulching, sometimes called lasagna gardening, involves laying flattened cardboard around plants to block sunlight from reaching the soil, then covering it with mulch. Without sunlight, weed seeds are less likely to germinate and existing weeds weaken and die. Fry recommends leaving cardboard in large, whole pieces for the best results. "Every time you shred it or have holes in it, that's a potential for light to get through," she said. "If the light gets to the soil, weeds can pop up."

To sheet mulch:

- Lay flattened sheets of cardboard around plants and overlap the edges to block light.
- Thoroughly soak the cardboard with water, which helps the cardboard stay in place.
- Cover the cardboard with about 3 inches of mulch. The mulch helps hold moisture and improves the appearance.

Over time, both the cardboard and mulch will break down, contributing organic matter and small amounts of nutrients back into the soil.

Not all cardboard is suitable for gardening. Fry recommends using plain brown corrugated cardboard. Large shipping boxes, moving boxes and large appliance cartons, which can be cut into custom-sized sheets are ideal. Fry advises avoiding heavily colored or slick, printed boxes. Before applying cardboard to your lawn or garden, remove plastic tape, labels and staples.

Cardboard blocks light, but it can also slow water from reaching the soil. If you use overhead watering, you may need to water longer to ensure moisture moves through both mulch and

cardboard, Fry said. For best results, install drip irrigation beneath the cardboard so water reaches plant roots efficiently.

Cardboard mulching works best around perennial plants that live for multiple growing seasons because the cardboard can remain undisturbed as it breaks down, Fry said.

Examples are:

- Trees
- Shrubs
- Long-lived ornamentals

When planting annual flowers or vegetables, you may need to creatively adjust how you place the cardboard around the plants, Fry said. Gardeners may leave a larger area for annuals to spread and will have to weed in between but this will still decrease the overall amount of weeding that will need to take place, she added. "In most cases, you can get at least a season out of it, sometimes longer, depending on conditions," Fry said. "Eventually it will break down, and you'll need to reapply."



Texas A&M AgriLife Extension specialist Jayla Fry demonstrates laying cardboard for sheet mulching in a garden. (Michael Miller/Texas A&M AgriLife)

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Water Snakes, April 25-May 1

The old saying goes that the only good snake is a dead snake. I must admit I have killed my fair share of snakes, all of which were either venomous and close to human dwellings or stealing eggs from the chicken coop. However, snakes play a vital role in the environment and should be left alone unless they are an immediate threat to someone's safety. Snakes feel threatened by humans and will try to escape if given the chance and will not become aggressive unless they are harassed. Unfortunately, many snakes are killed because they resemble

venomous species. Snakes belonging to the genus *Nerodia*, commonly known as water snakes, are by far the most misidentified snake across the south.

Water snakes are commonly misidentified as the venomous cottonmouth, *Agkistrodon piscivorus*, because of their large size, aggressive nature, similar coloring in some species, and the belief they kill fish. Water snakes can be told from cottonmouths by divided anal plates, double row of scales under the tail, and lack of facial pits. Even though these features can result in positive ID, obviously unless you are a trained snake handler you should not look for these physical characteristics. For an individual wanting to keep their distance, cottonmouth can be ID by their thick and large bodies that extend through the tail. Compared to water snakes that are generally longer than cottonmouths, bodies are less thick and have a longer tapered tail. Water snakes typically retreat quickly when confronted and when cornered they will flatten their bodies and head to make themselves appear larger and thus resemble cottonmouth. Lastly, water snakes play an important role in aquatic environments by thinning out overpopulated ponds and consuming less vigorous fish.

Waller County is home to approximately 4 species of water snakes. Mississippi green water snake, *nerodia cyclopion*, are generally green to brownish in color with light spots that are half-moon shape on the belly. It can be found in ponds, lakes, and marshes. Diamondback water snake, *nerodia rhombifer*, can be ID by the dark brown chain like pattern that runs down the back. However, this pattern can vary greatly and can fade in older snakes. This species can be found in large and small water bodies including ditches and stock tanks. Broad banded water snake, *nerodia fasciata*, can be the easiest to identify by the broad dark crossbands separated by areas of yellow. The broad banded water snake makes it home in the swamps across the south. Yellowbelly water snake, *nerodia erythrogaster*, is probably the easiest to confuse with cottonmouth due to its general lack of dorsal patterns. The snake is gray to greenish gray in color with a yellow belly. This species can be found in a variety of aquatic habitats but is usually not far from large bodies of waters.

I know snakes are not cute and cuddly and most people are not fans. However, all species play an important role in the environment and should be left alone unless they are a direct threat to someone's safety. As caretakers of this planet, it is up to everyone to do their part to ensure the continuation of all species. And yes, this does include snakes!



This broad banded water snake feels threatened and is flattening its body and neck. However, *for its length*, the body of this snake is still more slender than the body of a water moccasin, AND the tail is much longer and thinner.

Please note broad banded water snakes in Florida (snake pictured) are a different subspecies than here in Waller County and coloring is slightly different.

Image Credit:

https://ufwildlife.ifas.ufl.edu/water_moccasin_watersnake_comparison.shtml

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