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21 August 2 PSAs (kfeehan2@unl.edu)

Where do corn earworms come from? The adult is a moth who lays eggs on corn silks at night. After hatching, larvae crawl down the silks into the corn ear. While many eggs are laid, there is often only one earworm per ear because they are cannibalistic. Corn earworm control is challenging. If insecticides are used, they need to be applied every few days during peak moth flights. Because moths prefer fresh silks over those that have begun to dry, insecticides are only needed the first two weeks of corn silking. Most home gardeners choose to share some of their sweet corn with earworms rather than relying on insecticides, which is a fine route to go. A time consuming but organic control is applying mineral or horticultural oil to the inside of the silks with a medicine dropper after silks turn brown to coat and suffocate the earworms. If oil is applied to fresh silks, it interferes with pollination. Source; Ward Upham, K-State (kfeehan2@unl.edu)

Nebraska Extension recommends watering lawns only when turfgrass shows signs of needing water. This means automatic irrigation systems should be shut off, and only turned on when signs of water need becomes visible. Foot prints remaining in the lawn after walking across it or a dark cast to the grass are signs it is time to water. Frequency of irrigation is different for every lawn. It depends on grass species, soil type, weather, and other factors. When signs of water need appear, turn on the automatic or manual system. Ideally, water long enough to moisten the soil four to six inches deep, without water running off into the street. On clay or compacted soils, the irrigation system may need to be run two days in a row to moisten the soil deep enough. If an automatic irrigation system is left to run on a set schedule, this often results in overwatering, weakened roots and lawn yellowing, especially when soil temperatures are hot. (kfeehan2@unl.edu)

Puncturevine, also known as Texas sandbur, is a summer annual weed that grows prostrate, or flat against the ground. Puncturevine has yellow flowers and seeds enclosed in a hard bur that can puncture bike tires easily, not to mention soft shoes. It is commonly found in disturbed areas, mulched beds, and lawns during summer. Puncturevine is best controlled by pulling plants before burs are produced. Control with herbicides is appropriate for larger infestations. Combination herbicides containing 2,4-D, dicamba, MCPP, MCPA and so on are effective. After the plant dies, it is still best to remove it from the site to reduce reestablishment from burs next year. If dead plants with burs are left, the burs may be carried to new locations by people, animals, or equipment. Always read label directions before applying herbicides; paying attention to environmental conditions that favor drifting of herbicides offsite. (kfeehan2@unl.edu)
If you notice a small humming-bird like critter darting about your flowers, this is a sphinx moth. They move their wings rapidly as they dart from flower to flower inserting their long proboscis into flower centers to feed on nectar. They are enjoyable to watch. Sphinx moths are also known as hawk or hummingbird moths. Like all moths, their life cycle begins as an egg, hatching into a caterpillar and then pupating into a moth. The caterpillars are large, reaching up to three inches in length and one-half inch in diameter. All species have a horn-like appendage on their posterior end; hence they are referred to as hornworms. Note the horn is not a stinger and hornworms will not harm you. A few species, like tomato hornworm, can cause some damage in the garden, but hand-picking is the best control. Or, let hornworms be so you can eventually enjoy the sphinx moth feeding on flowers and aiding pollination. (kfeehan2@unl.edu)

This time of year, especially in thin lawns or lawns mowed low, crabgrass may show up even if the lawn was treated with a preemergence herbicide in spring. No product is 100 per cent effective, even if applied correctly. Crabgrass escapes occur for a number of reasons including misapplication. Regardless of the reason, older and larger crabgrass plants are more difficult to control than younger plants, making prompt post-emergence control important. Waiting to treat until after crabgrass is larger and tillering will result in the need for higher herbicide rates, increased risk of damage to lawns and reduced control. For a few plants, hand-pull before they go to seed. For larger populations of crabgrass, herbicides containing quinclorac, like Drive, will control young crabgrass plants as long as the appropriate spray adjuvant is also used. Be sure to read the label for specific rates, precautions and the need for a spray adjuvant. (kfeehan2@unl.edu)

CUCUMBER BACTERIAL WILT

By: Kelly Feehan, Extension Educator

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Cucumbers are susceptible to a number of diseases. One of the most serious is bacterial wilt that leads to sudden wilting and death of vines.

Bacterial wilt is caused by a bacteria transmitted to plants by striped and spotted cucumber beetles. Once infected, the bacteria grows within the vines clogging the xylem to prevent water movement in the plant.

Vines may initially wilt during the heat of the day and then recover during cooler evenings. Eventually, entire vines die. Cut vines will produce a creamy white bacterial ooze when firmly pressed on.

Once a plant has bacterial wilt, there is no control. Promptly remove and destroy infected plants to reduce carryover in the garden. Next year, select varieties resistant and plant cucumbers in a new location.

Cucumber beetles begin feeding early and any control measure used need to be taken soon after planting. Controls include covering plants with floating row covers, applying labeled insecticides, using reflective mulch and the use of trap crops.

The first two can only be used up until plants bloom since cucurbits rely on insects for pollination. Cucumbers have separate male and female flowers on each vine and insects are required for pollen transfer. Researchers have found it takes at least nine honeybee visits per flower to adequately pollinate cucumbers. Keep this in mind when trying to control insects.

Floating row covers are spun-bonded or woven plastic, polyester or polypropylene material that is placed over plants shortly after planting to exclude insects. They allow in light, water and air but must be removed once plants begin to bloom.

When laying row covers directly over plants, leave enough slack for the row cover to expand as the crop grows. Bury the edges completely with soil and place a board along the edges to keep the cover from blowing away and to prevent insects crawling beneath.

For taller or sensitive crops, row covers may need to be supported. If not, leaf abrasions can occur that lead to fungal disease issues or lower quality. PVC pipes or hoops are often used to create a framework to drape the row cover over.

When using a pesticide, do not apply them to blooming plants. Select one that has low impact on beneficial insects. For example, Neem is a plant based pesticide that prevents insects from feeding. Pyrethrins have no residual and treatments need to come in contact with beetles to be effective.

Conventional insecticides are longer lasting and kill more types of insects so use them responsibly. Examples are permethrin, bifenthrin, lambda-cyhalothrin and carbaryl. Read and follow label directions for application.

Reflective mulches are placed on soil beneath plants to deter beetles, such as silver polyethylene mulch available from some gardening outlets. At planting, place this on moist, weed free soil and bury the edges to hold them down. After the mulch is in place, cut three to four inch diameter holes to plant seeds or transplants.

With this type of mulch, a drip irrigation system is needed beneath the mulch. Once temperatures get hot, reflective mulches are best removed to avoid overheating plants. An alternative to purchasing silver mulch is to cover pieces of cardboard with aluminum foil.

Trap crops are used to attract the beetles to try and reduce their feeding on cucumbers. In this case, green zucchini planted away from cucumbers about two weeks prior to planting cucumbers may help.