## Tomato Hornworms

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. As the tomatoes are really taking off and growing well, so are the tomato hornworms, as evidenced by the calls I've started to receive. Tomato hornworms are a large caterpillar that feed on tomatoes. There are actually two closely related separate species that look nearly identical - the tomato hornworm and the tobacco hornworm. Tobacco hornworm has white diagonal stipes on its side, tomato hornworm has yellow diagonal stripes on its side. They are the larval form of one of the sphinx or hummingbird moths that we see around flowers. The adults are known as the 5 spotted hawkmoth for the tomato hornworm and the Carolina sphinx for the tobacco hornworm. The caterpillars eat tomato leaves. As a small caterpillar they are easily overlooked but as they get bigger so do their appetites and in the final days of their larval life stage they can just about strip a tomato plant. The caterpillar can reach  $3\frac{1}{2}$  to 4 inches in length. They like to feed at night and often spend days in deep foliage laying alongside a stem just disappearing as it blends in with the green. Many times you will see the droppings and missing foliage before you see the caterpillar. Handpicking can be very effective. They are parasitized by a small wasp especially later in the season - look for the white capsules attached to their body. They can be controlled with many garden insecticides. Spinosad, a biological insecticide is very effective as is Bt but you need to spray with Bt regularly for good control. This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

# Bagworms

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. In about another month the bagworms are going to be too big to be effectively controlled. At that time I will stop talking about them and if you call me I'll say, too bad for this year, mark your calendar for next year. In the meantime keep checking. They are getting bigger and easier to see, but they are still only a half inch in length, give or take a little bit. Homeowners are continuing to call me amazed at where they are seeing them. I was at a residence middle of last week and they were on elms, maples, Bradford pears and several shrub species. Another caller late last week had them on a Bald Cypress. What I'm telling people is that if you see any tree with leaves getting holes, just start looking for bagworms. If you are driving down the highway and you see cedar trees starting to turn a yellow or off green, especially towards the top, it's bagworms. It is just crazy this year. Spray them wherever you can find them. Even though deciduous trees and shrubs can recover from the defoliation, they will serve as an infestation source next year and next year could be worse than this year. I suspect the next several years are going to be bad and then we'll cycle back a little bit. But until then they are going to be bad. Use any lawn and garden insecticide. Use a hose end sprayer or some kind of sprayer that allows you to put on a lot of water. Foliage on some of these plants is so heavy it may take 3 to 4 treatments to get good control. But just stay after them! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Flowers but no fruit

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. The calls have started to come in already. Lots of flowers on garden crops but nothing to show for it. Or as we often say, all flower, no fruit. Several things can be the cause of this. If the plants are flowering, then it usually isn't a nutrient issue. Lots of green foliage and no flowers usually indicates not enough phosphorus. But if they're blooming, that's another story. Tomatoes, especially early in the season, do not like heat. Temperatures over 95 degrees and especially night time temperatures that don't go below 75 causes tomatoes to often not set. Later on in the season it is less of an issue. Tomatoes are wind pollinated so it's not a bee issue, it's almost always a heat issue. But bees are needed in other crops, including vining crops so be careful when you spray and what you spray with. Vine crops are another story all together. The bee issue I just mentioned but the other issue is that vine crops have separate male and female flowers on the same plant. The male flowers are notorious for developing and blooming earlier. It's fairly easy to tell the difference between male and female flowers on vine crops. The male flower is on a long slender filament, often several inches long. The female flower is attached much more closely to the vine and is connected to the vine with a miniature version of the fruit between the flower and the vine. A squash flower will have a tiny squash, a cucumber will have a tiny cucumber, etc. Once these show up, you should have fruit soon! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

### Harvesting Potatoes and Onions

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. This is the time of year that potatoes and onions are both commonly starting to be harvested. Potatoes need to be harvested when the vines are about half dead. If you dig them too early the skins are very tender and easily damaged. If you wait too long, until the vines are totally dead, the potatoes can be damaged by heat as the plants aren't keeping the ground cool any longer. High soil temperatures can also lead to premature sprouting of potatoes. Dig the potatoes and carefully knock the loose soil off of them. Get them into the shade as soon as possible and then let them rest in a shady dry location for three to four days. This allows the skin to toughen up a bit. After that you can move them into a cool moist environment, such as a cellar or basement for longer term storage. Onions are also ready to be harvested when about half the plants have tops that have fallen over. You need to get the bulbs pulled at this time to prevent them from getting sunburned. You also want to get onions into a shaded well ventilated area after harvest. It's important to not rush moving them into storage. You need to let the tops become totally dry so there is no moisture left in the neck. Just like garlic, a moist neck is an open invitation to decay organisms. Once the necks are well dried, trim the tops to about an inch or two long, err on the side of longer, knock any dried dirt out of the roots and trim them to about 3/8 of an inch and then store in a mesh bag, never a closed plastic bag. This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

#### Start Planning Your Fall Garden

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. It's the first week of July. It's hotter than the proverbial pistol and in the midst of what has been a record breaking drought. The last thing that many gardeners want to think about, especially this year, is more gardening. But if you are serious about a fall garden, you need to get ready now so you can start planting soon. In the areas that you have already harvested or not yet planted, make sure that they get worked up well. If you just harvested potatoes and onions, here's a chance to go right back in there. Many of the crops that we plant early in the year can be planted again in July and August for fall harvest. This year it may mean a bunch of watering will be done, but it will start raining again and it will cool off someday, and think how great all that produce will be come fall. Surprisingly, you can start planting potatoes already in early July. In fact, probably best to get them planted by the first of August. Snap beans can also be planted during the entire month of July. IF you can find transplants, and nurseries in the area should have them pretty soon - call first to confirm - you can plant cabbage, broccoli, and cauliflower all through the month. Be on the lookout for cabbage butterfly caterpillars though. Start using Bt dust early for easy and effective control. Once we get to mid July you can also be planting carrots and beets. Watering will be crucial as many of these plants are seeded shallowly and will dry out quickly. Weeds will come on quick as well! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.