

The Grapevine

Fruit set on Vegetables

Vegetables in the garden have been blooming like crazy the last couple weeks but many aren't setting fruit. There are a couple reasons that this could be happening depending on the plant you are having issues with. One cause of lack of blooms or fruit set is overfertilization of the plants. Overfertilization leads to vigorous plant growth but fewer blooms or fruit set. On tomatoes try not to fertilize with nitrogen till the plant has already set its first round of fruit to avoid excessive vegetative growth. Early on my tomatoes were setting on fruit like crazy but lately they have slowed down and even though they are blooming, there aren't many new tomatoes growing. Heat is the culprit for tomatoes. If we have nighttime temperatures above 75 and daytime temperatures above 95, tomatoes are unlikely to set any fruit even though they are blooming like crazy. But don't worry, once temperatures cool down a little bit the tomatoes will be back to producing enough fruit to feed a small village.



Vining crops such as squash, cucumbers, watermelon and pumpkins can have a different issue. They have male and female flowers on the same plant. Typically, the early blooms are all male flowers which means there won't be any fruit from them however after a few weeks the plant finds a balance of male to female flowers. It's easy to distinguish the male from the female flowers as the female flowers have a tiny fruit behind the blossom.

If you have both male and female flowers but still aren't getting fruit set make sure you are seeing pollinators visiting the flowers. Tomatoes are pollinated by wind typically and don't necessarily need pollinators but vining crops do. If you don't see many pollinators visiting your garden try using a paint brush to transfer pollen from male to female flowers. If you are only getting fruit on the flowers you pollinated you need more pollinators. Try to avoid using insecticides till dusk and plant some flowering plants around in your garden to attract pollinators to your spot.

Beating the Heat

The summer heat is here to stay and with no relief in the next ten days we should be taking some precautions when working outside. With the high temperatures and humidity comes the dangers of heat stroke and heat exhaustion. It's important to determine what are the priorities to accomplish during the limited amount of time when the weather is cooler. Try to make a short list of what has to be done, what should be done and things to do if you have time and the weather allows it.

- Limit activity to early in the morning or late in the evenings. On hot days, avoid working outside after 10:30 am or before 7:30 pm so you miss the hottest part of the day. Try to water your gardens during the cooler parts of the day so the moisture is less likely to evaporate before the plants can get to it.
- Be sure to wear light weight and light-colored clothing when working outside to keep as cool as possible. A wide brimmed hat will help keep the sun and sweat out of your eyes. Always wear sunscreen when working in the sun to avoid getting a sunburn.
- Drink plenty of water when you are outside and take breaks often in the shade to cool down. It can also help to alternate water with a drink containing electrolytes if you plan to be outdoors for a longer period of time.

Be sure to know the signs of heat stroke and heat exhaustion. If you start to feel cool and clammy, have nausea, a headache or start to feel lethargic it's time to stop and try to cool off. If you believe you are suffering from heat exhaustion don't immediately go into a highly air-conditioned room or cold shower as this can cause disorientation in some people and make them lose consciousness. Try using cool clothes on your head and neck first to cool off then go inside.



Pollinator Plant of the Week-



need much watering.

Our pollinator plant for the week is Salvia. Salvia is a large genus of plants that come from all over the world. This versatile group is a member of the mint family and like other mints have aromatic leaves. Depending on the plant they can be grown as either an annual or a perennial, however in our area many of them are annuals. Salvia come in a wide variety of sizes (1-5 feet tall) and can have blooms ranging from red to blue to white to pink and yellow. Salvia tend to be very low maintenance plants but they do require full sun and well drained soil. They can perform well as a border to a garden depending on the size of the plant. Salvia's are attractive to pollinators of all kinds but especially hummingbirds and bees. It is recommended to deadhead blooms periodically and to fertilize plants at least once a month to maintain their bloom. Once established Salvia are fairly drought tolerant and won't

Insect of the Week-

This week's insect is the imported cabbageworm. This insect is the most common caterpillar found in gardens and is a common pest of members of the *Brassica* family such as broccoli, cabbage, Brussel sprouts, cauliflower and collard greens. Adults are white butterflies with black tips to the forewings and a black spot on the front edge of the hindwing. The caterpillars can grow up to 1" long, are green with faint yellow stripes running down the sides and velvety soft. The caterpillars move sluggishly when poked. Cabbageworms feed on foliage causing irregularly shaped holes on a variety of plants. This insect overwinters in the pupal stage and can have multiple generations in a year. To control this pest reduce the number of weeds around the garden to keep the population numbers down. Remove plants and vegetation from the garden in the fall to reduce the number of overwintering larvae that will hatch the next spring. Rotate plants throughout the garden to reduce the population and availability of food to hatching larvae. Floating row covers can be used to prevent the adults from laying eggs on the desired plants. Control with chemicals is best when the caterpillars are young. A selective insecticide, such as pyrethrin's, Neem oil, Spinosad and *Bacillus thuringiensis*, can be applied to provide effective control of early instar larvae. Once caterpillars have gotten bigger it's best to pick them off as chemical controls won't be effective.



Disease of the Week



This week's disease is Septoria leaf spot. This disease along with Early blight are the two most common leaf spot diseases that we see on tomatoes and they usually start to appear right after blooms start to set on tomatoes. These diseases start on the lower leaves of the tomatoes and gradually work their way up the plant slowly defoliating it.

Remove any infected leaves as soon as possible to reduce the spread of the fungus to other leaves. Try to water the plant from the bottom using soaker hoses rather than overhead sprinklers when possible. Both fungi overwinter on plant debris, seeds and surrounding weeds. To reduce the chances of disease next year remove all tomato plant debris at the end of the gardening year and dispose of it, remove weeds in and around the garden as much as possible. You should also rotate the tomatoes through your garden so you aren't planting them in the same spot every year.

You can spray your tomatoes with fungicides to reduce the spread of the disease however it won't get rid of the disease on leaves that have been infected. Use products with the active ingredients Chlorothalonil (Fertilome Broad Spectrum Fungicide, Ortho Garden Disease Control, Garden Tech Daconil Fungicide Concentrate) or Maneb (Hi-Yield Maneb Garden Fungicide) to help control the disease.

Reminders-

- Stop harvesting asparagus now so it can store up energy for the next year.
- Turn your compost pile periodically throughout the growing season.
- Watch for rust on hollyhock leaves. If you see some spots remove those leaves, when they are dry, as soon as possible and throw away to reduce the spread. You can spray the healthy foliage with a sulfur product to protect it, just be aware sulfur can burn foliage if the temperatures are above 85 degrees within the next 24 hours.

Upcoming Events

- *July 6, 2022: Growing Culinary Mushrooms at Home*
Mushrooms can be a fun and tasty addition to your garden and dinner table. Pam Paulsen, Reno County Horticulture Extension Agent, will cover some of the most commonly cultivated mushroom species and walk through the steps of how to grow them successfully at home. The KSRE Garden hour sessions are held via Zoom starting at noon. For more information or to register [click here](#).
- *July 14-18, 2022: Butler County Fair*
Don't forget to stop by the Fairgrounds and check out all the 4-H and other exhibits at the Butler County Fair. Check out the Open class list and bring some of your projects or produce to exhibit at the fair this year!!!
- *August 3, 2022: Landscaping for Wildlife*
How you landscape your property and the plants you select can create a welcome invitation for wildlife to visit your property. Chuck Otte, Geary County Extension Agent, will discuss basic landscaping concepts that will encourage wildlife to visit your yard. Learn about recommended native plant material to utilize, as well as key management techniques that will provide benefits to many different wildlife species. The KSRE Garden hour sessions are held via Zoom starting at noon. For more information or to register [click here](#).
- *August 4, 2022: Turf and Ornamental's Field Day @ John Pair Research Center*
The field day program is designed for all segments of the turf & ornamentals industry - lawn care, athletic fields, golf courses, landscape, nursery, and grounds maintenance. Included on the program are research presentations, problem diagnosis, commercial exhibitors, and equipment displays. There will be time to see current research, talk to the experts and get answers to your questions.