

The Grapevine

Early Blight & Septoria Leaf Spot of Tomato

Unfortunately, this weekend's rainfall ended up being spotty at best, but if you were one of the lucky ones to get rain it's time to keep an eye out for fungal disease on your tomato plants. Early blight and Septoria leaf spot are the two most common leaf spot diseases that we see on tomatoes. While they can occur at any time during the growing season, they usually start to appear and become more severe right after blooms start to set fruit. Both of these diseases are commonly found in the ground and first infect the plants as the fungi splash up onto the lower leaves through rain or watering. These diseases gradually work their way up the plant slowly defoliating it. While these diseases are both commonly found, Septoria leaf spot tends to be the disease we see more in Kansas.



While both are leaf spot diseases they are easy to distinguish in the field. Septoria leaf spot will have circular, tan to gray lesions that develop on the lower leaves of the plant. These lesions are typically small (less than 1/8") but as the lesions become more numerous the entire leaf may become blighted. The lesions typically also have a dark-brown perimeter and may have a yellow halo around the spots. This disease only impacts the leaves and will not infect the fruit. Septoria leaf spot usually has smaller and more numerous spots than Early Blight. Septoria leaf spot is in the photo to the left. Early blight causes irregular, brown leaf spots that range in size up to 1/2" in diameter. The spots for early blight also form dark, concentric rings within the lesion giving the spots a target-like appearance. Often these lesions will coalesce into one big spot causing the entire leaf to turn yellow, dry up and fall off the plant. While

early blight is typically a foliage disease, lesions may develop on both stems and fruit. The fruit lesions are tan to brown, leathery and typically originate at the stem end of the fruit. An example of early blight is in the photo to the right.

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. Use mulch around the plants to reduce the chances that fungi can splash up onto lower leaves from the ground. Both fungal pathogens overwinter on plant debris, seeds and surrounding weeds. To reduce the chances of disease next year, remove all plant debris at the end of the gardening year and dispose of it (don't compost it) then 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 or Maneb to help control the disease.



Pinching Mums

One of the most beautiful fall blooming flowers is the chrysanthemum with its beautiful blooms that come in a variety of colors. To get those beautiful full mums you will need to do a little bit of maintenance work throughout the summer growing season. Mums need to be pinched or pruned back several times so instead of getting several tall branches with flowers you get a compact plant that has multiple flowers per stem. In reality we should have started pinching mums from when they first started growing however you can still pinch mums back from now till about the fourth of July without causing a loss of bloom. As mums put on about two to four inches of growth we should go in with scissors or garden shears and trim those mums back to encourage the secondary buds to put on new growth and giving you that bushy, compact plant at the end of the season with lots of blooms all over the plant. For more information on pinching back mums and to watch several techniques to do it check out this video:

<https://kansashealthyyards.org/component/allvideoshare/video/how-to-grow-big-bushy-annuals?Itemid=101>



Rhubarb Harvest

Rhubarb is a common perennial crop grown for its large, thick leafstalks. One of the most common reasons for a lack of success growing rhubarb is harvesting too much or harvesting for too long of a time. Since rhubarb is a perennial crop it draws on the food reserves stored the year before for vigor and strength to leaf out and grow in the spring. An established planting of rhubarb can be harvested for approximately 8 weeks and begins as soon as the stalks are large enough to use. Harvest only the largest and best stalks. They should break off easily if pulled slightly to one side. After harvest season, be sure to leave the stalks that develop to grow so the plant can store food for the next season. Following harvest, it's also important to fertilize the rhubarb with

a fertilizer containing mostly nitrogen such as nitrate of soda. Other high nitrogen fertilizers can be used, just follow the directions on the label. A fertilizer application should have been made in the spring as the plants start to leaf out. If the rhubarb starts to make a seed stalk be sure to remove it so the plant puts more energy into food reserves. Summer is the wrong time to rejuvenate a rhubarb bed however rhubarb should be rejuvenated every 5 to 10 years or if productivity has been decreasing over the last few years it is time to consider rejuvenating the bed in the early spring. You can dig up and divide the crowns in the sections and then replant. Remember not to harvest the first year after rejuvenating.

Asparagus Care

One of the earliest of the spring vegetables, Asparagus, is a common and popular perennial plant. If maintained correctly, asparagus plantings can be productive for decades without being replanted. Asparagus typically can start being harvested in early to mid-April depending on the year and can be harvested for approximately six to eight weeks or till the spear size starts to decrease. At this point in time you should stop harvesting the asparagus and leave the remaining spears to grow for the rest of the summer. Similar to rhubarb, asparagus needs those spears and leaves to store food reserves for the next growing season so that the asparagus can be productive for years to come. After you have stopped harvesting for the season be sure to fertilize the asparagus bed using a balanced fertilizer such as a 10-10-10, 12-12-12 or something similar at the rate suggested on the bag. Be sure to continue to control weeds in and around your asparagus bed once you have stopped harvesting. In established beds you can use a small tiller and till no more than two to three inches deep around the outside of the asparagus. Once the asparagus has grown up and has leaves similar to the photo they will shade the ground and can help keep the weeds knocked down. Products containing trifluralin can be applied to a weed free bed around the asparagus if weeds are a major issue. Older varieties of asparagus may also be susceptible to asparagus rust which causes the leaves of new shoots to die and fall off. You can control this issue after harvest season using a fungicide containing myclobutanil.



Weed of the Week- Poison Ivy

This week's weed is one that I'm sure we have all had run ins with at some point in time. Poison ivy doesn't pose a threat in our gardens to out competing the perennials or vegetables, rather it is mainly an issue because of the reactions it causes. Poison ivy has three leaflets that can be toothed or lobed and can often be found as a vine growing up trees or as a groundcover if it cannot grow upwards. In the fall poison ivy turns bright red in a beautiful and colorful display. This native vine is often confused with Virginia Creeper which is also a vine and ground cover that has leaflets in groups of five. The issue with poison ivy is the resinous compounds called

urushiols that are present in all parts of the plant. The unfortunate part is you don't have to touch poison ivy to have a reaction, the compound can get on tools, clothes, pets or even in the air if the plant is brushed and you can have a reaction from those. Even the dead parts of the plant contain the chemical and it can become airborne if the plant is burned. To control poison ivy, first dress the part. Cover as much skin as possible with long sleeves, long pants, closed

toed shoes and gloves. Small plants can be pulled with care but herbicides with triclopyr or glyphosphate can be applied when the plant is actively growing for control. You will likely need to make multiple applications in order to achieve full control. If you believe you came in contact with the plant, change clothes and wash immediately. Rubbing Alcohol can help remove the oils and prevent the rash from spreading. For more information on identifying poison ivy check out this video: <https://kansashealthyyards.org/all-videos/video/poison-ivy-check-for-leaves-of-three>

Issue of the week- Fireblight

Our issue for this Grapevine is a bacterial disease called Fireblight. This pathogen impacts the *Rosacea* family of ornamental trees and shrubs. While it is not native to the US it was first reported in New York in the 1700's and is prevalent across the United States. Fireblight is most common on apple, crabapple, pear, cotoneaster, quince, serviceberry and many other trees and shrubs. The infections commonly begin with the flowers and spread into the shoot and the leaves of the impacted branch. The infected leaves and shoots turn dark brown or black and the shoot tip starts to curl downward into a characteristic "shepherd's crook" as seen in the photo to the right. The disease can also cause cankers on the trunk and larger branches. The bark on the cankered stem is dark, may be sunken or cracked and when the disease is active there may be a bacterial ooze emitting from the area. This disease is most severe during moderately warm temperatures ranging from 70-81 degrees with rainfall. Bacteria are spread by wind, rain and insects that spread the pathogen from blooming flowers. The bacteria can also colonize open wounds caused by wind or storm damage, pruning or other wounding activities. If not treated, fireblight can kill an entire tree over a period of time. While there are some treatments available for fireblight, the best control is to prune any infected branches out 12 to 18" below any visible symptoms. Conduct the pruning during dry weather and disinfect your pruners in between each cut using bleach or rubbing alcohol. If a tree has a history of fireblight you can apply copper products prior to bud break in the spring to prevent the inoculation of the flowers. Other treatments must be applied prior to any infection of fireblight. For more information on fireblight check out this publication: <https://extension.colostate.edu/topic-areas/yard-garden/fire-blight-2-907/>



Plant of the Week- *Heuchera*

This perennial is commonly called "Coral Bells" due to the bell shape of its flowers. The other common name for this genus is Alumroot which refers to the medicinal use of this plant as an astringent to the bleeding of wounds. This genus of plants is comprised of more than 50 different species and they are hardy from zone 3 to 9 depending on the species and cultivar. Coral bells are perennials and are native to the Russian far east, Canada, Mexico and the United States. If you are wanting to add some bold colors to your garden, *Heuchera's* might be just the plant you are looking for. These showy plants are grown for their leaf color and range from yellow to purple to brown and various shades in between.

Coral bells have white to pink flowers that start to bloom in June and continue through the growing season. Be sure to deadhead the spent flowers to encourage a longer bloom time. These perennials can be grown in the sun or in the shade depending on the cultivar but they will develop their best leaf color in the sun. Coral bells will need divided regularly, approximately every three to four years, otherwise they can be a fairly short-lived perennial. There are relatively few disease or insect issues for this perennial however leaf scorch can become an issue during hot dry weather if the plants are planted in full sun. Some varieties can get powdery mildew however if adequate airflow is provided it is rarely a problem. Coral bells are not particularly aggressive spreaders and can be crowded out by more aggressive plants. These plants grow well as an edge plant in perennial borders or in clustered in groups throughout a planting.

Reminders-

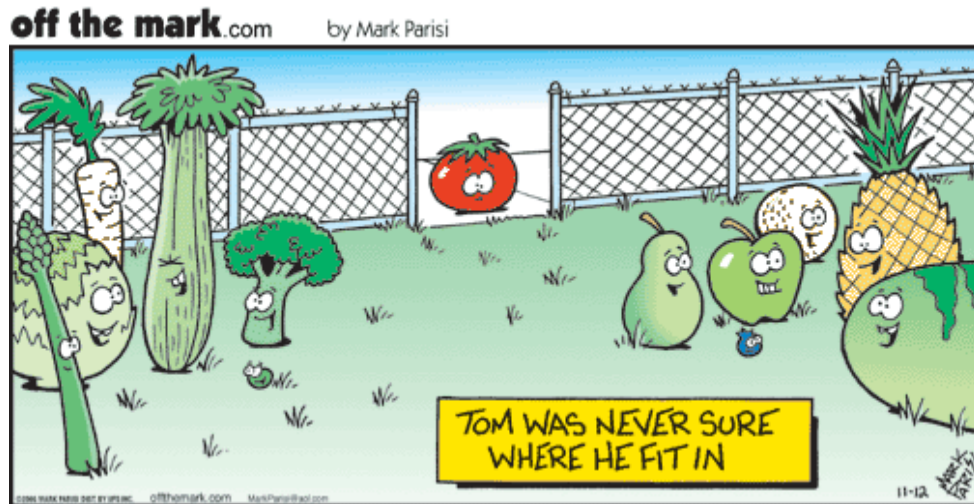
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- Prune off suckers on fruit trees as they appear.
- Remove tree stakes that have been on for a year or more.
- Prune off dead foliage from bulbs.
- Stop harvesting asparagus.

Video of the week: Protecting Orchards from Deer

Deer can do a lot of damage to young fruit trees. While it can be hard to control deer, there are some options available to keep them from damaging your trees or bushes. This segment demonstrates an easy and inexpensive way to protect those trees. Watch the video here: <https://kansashealthyyards.org/all-videos/video/protecting-the-orchard-from-deer>



Upcoming Events

- *June 7th at Noon- Drought Tolerant Lawns of Kansas- Warm Season Turfgrass*
Kansas weather is extreme, but summers are frequently hot and dry. Join Dr. Ross Braun, Assistant Professor of Turfgrass and Landscape Management, as he explains what it means to live in our “transitional climatic zone”, with the option to grow both cool- and warm-season turfgrass species. Learn how to grow grass species that are more drought tolerant, in order to better survive our summer weather and conserve water. This class is offered online via Zoom. For more information on the Garden Hour series or to register visit here: <https://hnr.k-state.edu/extension/consumer-horticulture/garden-hour/>
- *June 11th from 12 to 7 pm at various locations in El Dorado*
Get ready for a blooming good time! Join El Dorado Main Street on June 11th for our Garden Tour fundraiser. You'll embark on a botanical adventure across five unique gardens, showcasing the beauty of our community. Tickets for the event are \$20 each and can be purchased on Eventbrite or at the gardens on the day of the event. Sales support El Dorado Main Street and our mission to enhance our downtown identity and heritage, foster a center of activity for both business and recreation, and ensure economic stability for the heart of El Dorado. For more information or to purchase tickets online: <https://www.facebook.com/events/1427428451341611>
- *July 5th at Noon- Solutions to Your Top Garden Insect and Disease Problems*
Insects, diseases, and weather related problems are always an issue in the landscape & garden. Judy O'Mara, Director of the K-State Plant Disease Diagnostic Lab, and Dr. Raymond Cloyd, Extension Specialist in Horticultural Entomology, are here to help! Learn to identify and solve the plant problems you should be on the lookout for, and bring your insect & disease questions for assistance from our experts. This class is offered online via Zoom. For more information on the Garden Hour series or to register visit here: <https://hnr.k-state.edu/extension/consumer-horticulture/garden-hour/>