Tomato Issues – Recognizing and Addressing Them

Ensure that plant roots are healthy and functioning

Almost every gardener grows tomatoes, however the degree of success that they will have in this endeavor varies considerably from person to person and year to year.

According to Robert Spencer, horticulturist, other than the major influence of the weather, there are three issues that are common in garden-grown tomatoes.

Spencer says that the first (and most common) is a physiological problem, although it looks very much like a disease. “Blossom End Rot is somewhat improperly named, as it is not truly a rot, or one that is initially associated with a pathogen.”

Spencer says “BER is characterized by a darkening and sinking of the tissues on the blossom end of the tomato fruit. It starts as a slightly tan coloured area, becoming quite dark and progressively more sunken and larger.”

BER can cover as much as half of the fruit. Although the tissues look quite water-soaked and soggy, the tissues are actually dry (at least at first).

Blossom End Rot is caused by localized nutrient deficiency, where a lack of sufficient calcium in the developing tissues of the fruit results in a death of the tissues. Eventually, the tissues may be invaded by a secondary pathogen, and then the rotting truly begins.

Spencer says, “The common thought is that a calcium deficiency must be due to a lack of calcium in the soil or growing medium and that it should therefore be solved by a generous application of a source of calcium.” However, Spencer says that this is not necessarily the case. Most Alberta prairie soils have good levels of calcium due to their calcium-rich parent material.

The deficiency typically occurs when fruit (or plant) growth rates outstrip the calcium supply in the plant. Alternatively, deficiencies occur if the flow of calcium into the plant is slowed or obstructed. Spencer says that this can happen if roots are damaged and are therefore unable to take up nutrients.

If soil conditions prevent nutrients from being taken up, you will also see insufficient calcium. This happens if elevated salt levels in the soil mess up the ability of plants to draw in water and nutrients, or if high levels of nitrogen or magnesium compete with calcium for entry into the plant.

Spencer says that the best way to prevent BER is through ensuring that calcium uptake is not interrupted, mainly through managing water intake and ensuring that soil moisture levels are not excessive or insufficient.

“Ensure that plant roots are healthy and functioning.” In some cases, a foliar application of calcium prior to the appearance of symptoms can help prevent issues from developing.

Tomato Issues *continued*

The second common issue that appears in tomatoes as they age is a fungal disease known as Early Blight. It is caused by a pathogen called Alternaria solani. It is recognizable by its brown lesions with yellowed edges that form concentric rings as they enlarge on the leaves. It does not move past larger veins. It is most common on older, lower leaves, particularly if they are in contact with the soil, and if there is a fair bit of moisture. If the disease increases a great deal, the plant canopy can die down.

According to Spencer, in most cases, Early blight is not a major deal for tomatoes, however, if you notice levels increasing, it should be dealt with as best as you can. Ensure that there is good airflow around the plants, that there are limited amounts of rain/water splash onto plants, and that plant debris is incorporated at the end of the season so that it can break down.

A third issue that has shown up more and more in recent years is damage and distorted growth caused by herbicides. Most herbicide exposure is inadvertent and unintentional, but the effects can be quite dramatic. Symptoms can include twisted or curled leaves, leaves that have shortened margins or that are long and stringy. In extreme cases, plants can die.

Herbicides can reach the tomatoes in a few ways (other than direct application). Soil residual herbicides can move from treated areas in soil water or in soil, composted or composted manure (from treated plant sources). Some herbicide can reach tomatoes through the air, either through drift, or through low level exposure to volatiles (off gassing) when products are applied nearby.

Gardeners should be careful when applying broadleaf herbicides to lawn areas adjacent to gardens or greenhouses, as there can be some gassing off of the product. Some formulations are less prone to this, but in general, just be careful.

For each of these problems, management is more about prevention than curing a problem that appears.

Coming Events

“FREE” Cattle Market Update: Thursday, October 15 at 1:30 pm: Clearwater County’s annual Cattleman’s Day has been revised due to COVID-19. In lieu of a public event, Agriculture and Community Services will be hosting Anne Wasko with a cattle market update. The presentation will be in a webinar format accessible to both computer and mobile devices. To register, call 403-846-4040 or email asoppit@clearwatercounty.ca.

Environmental Farm Plan: Are you an agricultural producer looking to complete an EFP; have an EFP completed more than 10 years ago; or wish to be eligible for cost share funding with various programs under the Canadian Agriculture Partnership? Clearwater County has two technicians available to help you start, complete or update your EFP. Call 403-845-4444 for more information.

Working Well Virtual Workshop: November 4th at 6:30 pm virtually through Zoom. This free workshop hosted by Clearwater County will give landowners information about drilling, maintaining, troubleshooting and monitoring private water wells. To register, please visit https://bit.ly/3jg8pgg.

Bats in your Backyard Virtual Workshop: October 7th from 7 – 8 pm virtually through Zoom. Hosted by Clearwater County and presented by Provincial Bat Specialist Lisa Wilkinson with Alberta Environment and Parks. To preregister: https://us02web.zoom.us/meeting/register/tZwoce-vqj4pG9POP4bSCo8785y-TufBrZVt