

Annual Springtime Myths

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

If it's springtime that means that the annual myths and misinformation will be floating around on social media. Sadly, like many things on social media, the information sounds awesome, but really isn't what it says it is. With anything from killing weeds to growing awesome tomatoes, the internet will tell you how to do it without using nasty chemicals or normal inputs. So let's just do a little myth busting today.

One of my favorites is the vinegar, dish soap and whatever else the various recipes call for, weed killers. It often will also say that this will be a "safe" replacement for glyphosate (Roundup, Kleenup and other products.) The various claims are crazy. Always remember that if it sounds too good to be true it probably is! Will vinegar kill plants? Yes. Sort of. The active ingredient that is doing the business here is acetic acid. The kind of vinegar that you and I have in our homes is generally going to be 5% acidity. IF you pour this directly on a small seedling plant on a warm sunny day you will likely kill it. But for a plant that is more than just a seedling, you will need 20% acid vinegar. You can find it, in fact you can find it clear up to 30 and 45% acidity.

The problem is that if your plants are very big, or it's a cool day or worse yet if it's a perennial like a dandelion, you can burn the leaves off, but it will sprout new leaves. Vinegar (acetic acid) is a contact vegetation killer that ruptures cells, and causes the leaf material to die quickly. For a seedling that has no root system and no developed crown, it's fatal. Perennials or larger plants will just say "whatever" and develop new leaves. All the liquid soap does is to break down surface tension on the leaf surface so it more completely covers the leaf. The other thing you need to realize is that acetic acid is about twice as toxic as glyphosate if ingested. The other thing that you need to consider is that constantly pouring an acidic compound on the ground, or even salt for that matter, to kill plants, will start to mess up the soil and then you've got a real problem. But it's your choice, do what you want to do!

Let's also talk about that long standing tradition of using Epsom salts to grow awesomely perfect tomatoes. People swear that Epsom salts will prevent blossom end rot. No. Blossom end rot is caused by a calcium deficiency. Specifically a short term calcium imbalance because the top of the plant is growing faster than the roots. To keep growing the plant steals calcium from the fruit to support the rest of the plant. Epsom salts is magnesium sulfate. It does not contain calcium. In fact, magnesium and calcium in the soil compete to be taken up by the plant. Secondly, Kansas soils have more than adequate calcium for growth. For this same reason, placing an antacid tablet under the tomato plant at planting doesn't help either.

Nitrogen fertilizer sources that are ammonia based, or ammoniacal nitrogen, create lots of growth but the ammonia ion also competes with calcium uptake in the soil. Most nitrogen garden fertilizer is ammonia based. Heavy fertilization will make the problem worse. There is one nitrogen fertilizer, calcium nitrate, that doesn't depend on the ammonia nitrogen source. Use calcium nitrate for your tomatoes. Also try to maintain even soil moisture levels. Going from wet to dry and back wet again will make blossom end rot worse. Use mulches and water regularly if it isn't raining. If you cultivate, do so shallowly so you don't injure shallow roots. In general, be patient and don't push your plants too hard and you will have fewer issues with blossom end rot.