## It's Tomato Time!

## AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent
Good news! You may all now plant your tomatoes! Okay, the $80 \%$ of you that have already planted your tomatoes, how are they looking? If you planted them prior to April $30^{\text {th }}$, I'm willing to bet that they aren't looking all that great. If you planted them prior to April $15^{\text {th }}$, I have a suggestion. There are still transplants available at stores. Go buy some new tomato plants and replace the ones you planted the first half of April.

Tomatoes (and peppers, eggplant, sweet potatoes) are essentially tropical plants. They do not like cold weather. They do not like cold soils. They don't care that you want fresh homegrown tomatoes early in the year. They want it warm!

Over the last couple of years I've visited with quite a few home gardeners who were disappointed in their tomato crops. They were asking about new varieties to try and testing their soil to see what the soil may be deficient in. As we visit I invariably bring up the topic of planting date. Invariably gardeners were planting in mid April, sometimes early April. The ground is still cold then, even if you put up your water walls around them or whatever. It isn't just about keeping the frost off the tomatoes, it's about cold soils.

When temperature sensitive plants are placed in cold soils, or the soils get cold after planting, the plants literally go into a state of shock. How many times have you planted tomatoes that were already blooming? They were being grown in nearly ideal conditions, they had gone through vegetative growth phase but had now switched to reproductive phase which is why they were blooming. Then you plant them into a hostile cold soil environment and they go into a state of shock. If you've planted tomatoes and a week later noticed that they were turning a purplish shade, that's a visible representation of the cold weather shock. The purple is caused by a potassium deficiency brought about by the tomato plant's roots inability to properly take up potassium from the soil.

Tomatoes aren't going to do well until the soil is a pretty consistent 55 degrees at the two inch depth. Remember the last week of April leading up to the snowy weekend out west? Soil temperatures, that may have been around 55 previously in April, dropped into the mid to low 40s with all those clouds and cold rain. Air temperatures were down into the upper 30s. This is not tomato weather and any tomatoes that were in the ground at that time were shocked. Once the tomato plant has been shocked it can take extended warm weather to get it back into
reproductive phase of growth. Your goal of having the earliest tomatoes in the neighborhood backfired on you. By the way, if you want the earliest tomatoes, put them in a large pot that you can move in and out of the house!

If you didn't plant your tomatoes yet, good for you! If you did plant tomatoes early and are regretting it, cut your losses. Go to the store and pick out tomato transplants that are four to six inches tall and stocky. Don't go for the biggest ones you can find, that's another common mistake. Take the tomatoes home and plant them in a warm sunny location. Don't worry about fertilizer for a week or two. You want to get the roots established in the soil not encumbered by the salts of the fertilizer. And please, don't use Epsom salts. It doesn't do a thing. Then keep the plants watered and know that you should have tomatoes by the $4^{\text {th }}$ of July, maybe even before!

