## Can I Start Planting My Tomatoes Now?

AGRI-VIEWS<br>by Chuck Otte, Geary County Extension Agent

Since 1951, our average last frost date in the spring has been April $15^{\text {th }}$. But before you start planting your tomatoes and other tender plants, we need to remember a few other things. An average is just that, an average. Roughly half of the time the last frost is before that date, and half the time the last frost is after that date. The earliest that we've had our last frost is March $10^{\text {th }}$ (2012), and the latest that we've had it is May $14^{\text {th }}$ (1953). Two years out of every three we expect that our last frost date is going to be within 13 days of April $15^{\text {th }}$ or basically April $2^{\text {nd }}$ to April $28^{\text {th }}$. In fact in those 63 springs since 1951, the last frost has occurred in March 7 times, the last frost in May 9 times and the other 47 years it's been in April.

Now that we have gotten those boring numbers out of the way, let's move on the reality of growing tomatoes and other warm weather garden crops. Tomatoes aren't just sensitive to frost, they are sensitive to cold conditions, period. Minimum consistent soil temperature for tomatoes is 55 degrees. I’d prefer 60 degrees just to keep the roots happy. Either way, we aren’t there yet. I like to go by the frost free date when it comes to planting tomatoes. The frost free date is that date when there is about a $1 \%$ chance of having another frost. For us, I feel like that date is around Mother's Day, or roughly May $10^{\text {th }}$. This not only gets us past the chance for frost but also gives us a chance to get the soils good and warm.

So what happens if you try to push the season and plant a little bit early? Some years nothing is going to happen. But if you push the season too much, you'll cause your tomato plants to go into shock. Before long, if not already, the tomato plants you buy from the garden centers are going to be blooming. Because of the warm greenhouse conditions and lengthening daylight, the plants will have already gone from vegetative to reproductive mode. If this has happened and the plants then experience cold shock, it will switch them back to vegetative growth phase. If that happens it will take extended temperatures above 70 degrees to get them back to start blooming.

People plant tomatoes early because they are anxious to have fresh tomatoes from the garden. But by planting early and then having cold shock set in, the gardener has actually delayed when they will have tomatoes. What about the water teepees, don't they help? They can, but if we have 3 or 4 days of cold, rainy, cloudy weather, the warming effect of the water get's cancelled out and it goes the other way. You can tell that tomato plants have had cold shock if they start to turn bluish or purplish. At that point, all you can do is wait it out.

About the most that I would ever push the season with tomatoes is two weeks, or in essence next weekend. Between then and now you can lay black plastic mulch to help warm up the soil where you will plant the tomatoes. You need to use water teepees or hotcaps or even floating row covers, to help protect the young transplants. But even with all of these little tricks, nothing can beat using a soil thermometer prior to planting. Take your soil thermometer out in the late morning and check the temperature $21 / 2$ inches below the soil surface. If you don't get a minimum of 55 degrees for 3 or 4 days in a row, then don't plant until you do!

I love fresh tomatoes so I can understand the desire to get the plants started. But you can't cheat mother nature and it will catch up with you. If you have to start early, only do it with one or two plants. Or plant a couple of tomato plants in pots that you can bring inside during colder weather!

