

The Garden Corner
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It's official! May 2015 is the 6th wettest May since records have been kept from the late 1800's. With all the rain and cooler temperatures, most of our plants have enjoyed a terrific spring – but not all of them. Most of us know there are several important factors leading to successful plant growth; e.g.: good soil, right location, correct plant for our zone, sufficient sun and/or amount of sun to mention just a few. Soil temperature is another fundamental requirement for a plant to perform its best. Given how cool this spring has been, coupled with all the rain we've gotten; some of our gardeners are wondering why a certain plant isn't growing the way it has in the past; or, perhaps why the flowers are not as big and beautiful as in previous growing seasons.

To understand this let us picture the structure of the plant as it stands in the garden. Below the soil is the roots. Then comes the stem, the leaves, and finally the flower and eventually the seed or fruit. For the plant to develop, the roots have to be able to take water and nutrients from the soil and move that up through the above ground structure allowing photosynthesis (or food production) to take place. At the same time, two additional processes are occurring which depend upon temperature: respiration and transpiration. All of these processes have to be operating in symphony to produce a healthy specimen.

What happens when the temperature is much cooler than normal; or, we get tons more rain than the soil can hold? How do these two conditions effect plant growth? Let us consider temperature first. As the ambient temperature rises and warms the soil and surrounding air, a thing called "hydraulic conductivity" increases. That is just a fancy term stating that as the days get warmer, fluid moves more quickly and more efficiently from the soil to the roots to the plant. Some of the plants in our gardens have not reached the optimal temperature for the best growth and seem to appear as if they are not growing at all. Be patient! As the summer temperatures rise, the plants will respond accordingly.

What about all this water? How has that affected our plants? If the soil is not well drained, chances are you have or will lose some of your early plantings. Why? Remember "hydraulic conductivity"? With warmer temperatures the process speeds up. With lower temperatures, the process slows down. Makes sense, doesn't it? Again, picture the plant as it stands in the garden. Focus on the roots being surrounded by water and because of the lower temperatures the process of taking that water and moving it up into the plant has slowed tremendously. Without being able to move the water effectively, the roots will eventually become water logged, rot, and die.

The good news from this rather bleak account from what has been an otherwise fantastic Missouri spring is many of our plants have evolved successfully without any intervention from human kind. Most will recover when our days become warm and sunny. For the unfortunate few who perish; now you know why. For your questions and/or comments write to: 370 NW 121 Rd., Warrensburg, MO 64093 or email: maandpak@embarqmail.com and I'll get right back with

you. The “heat” is coming! Be sure to drink plenty of water and take frequent breaks to keep your own “hydraulic conductivity” working properly.