

Tomatoes Ripening in the Sun?
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Many people have commented to me that this summer had been cooler than most years. Weather plays a large part in the development of garden plants as well as commercially grown crops. Corn and tomatoes are both warm season crops while lettuce, cabbage, and radish are cool season crops. Corn needs a certain number of degree days before maturity as do other crops. Tomatoes have been slow to mature in some areas. It is not surprising that tomatoes were slow at ripening this summer.

First off they were a little behind in development and depending on which cultivar was used the amount of time before maturity may have been too long for this summer. Tomatoes require a growth regulator called ethylene to initiate ripening of the fruit. This is why we can harvest commercial tomatoes in the green mature stage and transport them green. Botanically tomatoes are ripe at this stage. A treatment of ethylene is given to them and the ripening process is completed. However, these tomatoes never have the flavor or texture that vine ripening does.

Can we force tomatoes to ripen at this point? Once the fruit starts to change color we can harvest and they will continue to ripen. Placing tomatoes on your windowsill or in paper bags will help to concentrate ethylene gas. This in turn will cause them to ripen fully. In the event of frost, gardeners should harvest any fruit that has started to change color and protect your vines by watering and covering.

Watering the vines protects by utilizing the heat of fusion. This occurs when the water freezes and heat is released into the plant protecting it from frost damage. Covering plants holds in heat from the ground throughout the night. Frost is a funny thing and can be influenced by hills, valleys, trees, buildings and many other factors. In order for a frost to be a "killing frost" the temperature must fall below the plants tolerance level for a certain length of time. Tomatoes being a warm season plant have a low tolerance level, which is why we protect them during frost warnings.

Unfortunately, we are now at a time in the season when we need to make decisions about what is left of our gardens. Some areas have already had frost and those areas that have not had frost will likely soon see some. For those that have not had a killing frost I suggest the following; watch the weather, harvest those tomatoes while green, cover them if there is a chance of frost, and enjoy the usual nice weather that follows the first hard frost.

More information on horticultural topics can be found by visiting the Pennington County website at <http://www.co.pennington.sd.us/extension/extsvc.html> or by calling 605-394-2188 or email me at ricky.abrahamson@sdstate.edu. Feel free to send me any feedback about my articles or web site.