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LIFESTYLE

Campbell Vaughn: Learn what 'chill hours' are before adding any plants to your yards

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Key Points AI-assisted summary

- Chill hours, or hours spent below a certain temperature, are crucial for plants to flower and produce fruit.
- While the Augusta area experienced a warm spell, the region has accumulated around 960 chill hours since October, similar to previous years.
- Gardeners should consider the specific chill hour needs of fruit cultivars before planting.

We have been on a steady streak of cool weather up until last weekend and plants are deep into dormancy.

Most non-annual plants in our region need some relief from the heat and active growing, so in the winter months they go into dormancy. This is a gradual process that begins when the days get shorter, and the temperatures begin to drop. Some plants begin setting their buds, shedding their leaves or even die back to the ground.

When a plant finally goes into dormancy, it is able to defend itself against harsh conditions like snow and ice as well as experience a necessary down time. The timing of this cool season resting period is termed “chill hours”.

A period of chilling is required for a plant to blossom. And with blossoms, there is fruit.

This chilling requirement is usually expressed with the term “chill hours”. One chill hour is equal to one hour at or below the chilling temperature. Some plants have a chilling temperature that is below freezing, some may need to be fewer than 45 degrees Fahrenheit while others may only need to be under 60 degrees. If a plant does not obtain its required

chilling hours, it either may not flower at all or flower much less. Less flowers means less fruit.

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There are two stages of chilling, and the first stage is reversible. As the season starts to cool down and a plant is getting ready for its period of dormancy, if the temperature warms up for an extended period, then the plant slows its dormancy preparation. In that case, no chill hours are recorded.

The second stage of chilling is irreversible. At some point a plant is committed to dormancy. When the weather reaches a certain temperature or a certain period at or below a specific temperature, a plant will commit itself to dormancy. Even if things warm up some, the plant will remain dormant until other triggers cause it to break this phase. If the temperatures are low enough or long enough throughout the winter, then the plant will be able to emerge in the spring and blossom prolifically. If the weather is like this past winter and not cold at all, then we may get little or even no flowering which leads to poor fruiting.

Campbell Vaughn: See these tips for adding sod to your lawns in the winter

The University of Georgia has a statewide weather network that is a great source for facts and figures and historical climate data on the website georgiaweather.net. The two closest monitoring stations are in Dearing and Clarks Hill, S.C. I use the Dearing station for Richmond County and the Clarks Hill station for Columbia County.

To research chilling hours on this website is easy. Our chill hour season runs from Oct. 1 to April 15. The standard chill hour temperature in Georgia is 45 degrees. Despite what seems like a level of cold I would consider comparable to the North Pole, the chill season has almost the same chill hours as 2022 and 2024 with 960. With this number of cool temperatures in the bank and a recent burst of warm weather, we should start seeing ornamental cherries, flowering apricots and daffodils popping flowers out all over.

Commercial apples and cherries aren't consistently viable in the Augusta area because they require 1,200-1,500 annual chill hours and that is well above our average of about 1,100 hours. Peaches do well in our area because they only require 750-900 chill hours. Georgia has become the No. 1 blueberry producer in the nation due to the Rabbiteye cultivars that only require between 450-650 hours. Blackberries, pears, persimmons, muscadine and plums are also good producers in our area.

Make sure to check the chilling requirements for any particular cultivar of fruit when deciding to invest in one for your landscape.