

**Warm Weather Plays Havoc on Trees and Shrubs**  
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**For Week of December 7, 2009**

While back in Fargo over the Thanksgiving holiday my oldest son pointed out a plant that had some flowers on it. Upon closer inspection I realized that I was looking at new flowers on a potentilla shrub. Thinking about what I was looking at I realized that I had never seen shrubs blooming in Fargo that late in the year before. I also thought back to when I lived in Omaha and the crabapple tree in my backyard bloomed a little in August.

The weather may be a bit more normal now but I thought that you might like to read what Dr. John Ball, SD Cooperative Extension's Forestry Specialist, has to say about these strange plant happenings. I hope you enjoy Dr. Ball's words of wisdom on this topic.

Much of the state experienced a cool to cold and wet October followed by a drier and warmer November; it was almost as if Mother Nature got the months reversed! This weather pattern altered many of our outdoor activities – including harvesting crops – and it also altered some of our woody plant's normal responses during this season.

Woody plants need to begin the process of dormancy during the autumn as a preparation for winter. There are two forms of plant dormancy, eco- and endo-. Eco-dormancy is a condition where the plant becomes dormant, growth ceases, in response to environmental conditions such as drought or cool weather and once that condition become more favorable for growth, it resumes. Endo-dormancy is our typical winter dormancy. This is more complex than eco-dormancy with a number of different triggers or benchmarks to achieve dormancy and come out of dormancy in the spring.

The process of endo-dormancy is triggered by photoperiod. As the nights become longer in autumn, woody plants begin the process of preparing for winter. The second trigger for achieving dormancy is exposure to cold weather, more specifically the number of freeze/thaw cycles in the fall as the plant needs to experience temperatures below freezing to trigger this deeper level of dormancy but also have warmer temperatures to allow the biological activities of dormancy to occur. Once this second stage of dormancy is completed, woody plants are prepared for winter.

Exiting dormancy in the spring also relies on triggers, though different ones than for entering. Most woody plants have to be exposed to a certain number of hours of temperatures below 45°F before they will begin to exit endo-dormancy and then with warmer weather and longer days, eco-dormancy ends and growth begins.

This autumn we had our cold weather in October and then it warmed, enough to confuse some woody plants. I have had reports from a number of areas in the state of trees and shrubs breaking bud and beginning to flower and even leaf out in response to the warmer November weather. Most of these ornamental plants are not native; ash and oaks are not as easily fooled, while roses and magnolias are. This may result in some injury to many of our exotic ornamental plants since they still had tender tissue when cold winter weather finally arrived in much of the state this week.

There is not much that can be done to help the confused plants that are flowering and leafing out, in fact probably nothing should be done at this time. However, expect to have to prune out some significant winter injury in the spring on some plants while others may just have fewer flowers – only time will tell.

As always if you have questions about this article or any other horticultural issues you can call me at 605-394-2188 or email me at [ricky.abrahamson@sdstate.edu](mailto:ricky.abrahamson@sdstate.edu). You can also find us online at <http://www.co.pennington.sd.us/extension/extsvc.html>.