

Facts on Frost

Over the past few weeks, I have been receiving numerous calls and questions on the damage of plants due to the hard frost that we experienced. I feel that this would make for an excellent column this week, and help the other numerous residents of Clarksville address some of the concerns that they have.

In a typical winter to spring transition, frost damage is still common on many plants. Plants that usually suffer the most are the species that have originated from Asian climates. Where these plants grow native, late frosts are typically not experienced. Once the conditions are right, there is a very small chance of being hit by frost. A great example of this is ornamental magnolias. Most ornamental magnolias are originated from Asian species, or at least have one species from Asia in its bloodline. I am sure that most people can remember seeing magnolias flowering in all of their splendor, only to lose all of their flowers the next day due to frost. This is a very common occurrence, and is something to be expected.

On the other hand, native plant material to the U.S. has evolved with our climate, and plants usually wait until later to leaf out and flower. This helps these plants avoid most late frosts, but is not a guarantee, as everyone can see from simply looking out their window. The temperatures that we experienced prior to the frost were extremely favorable for growth and lasted an extended period of time. There was no way even for most native plants to realize what was going to happen.

So now we have all of this extensive frost damage to a large part of

our plant communities throughout town. Some of the damage is very minor, only hitting some of the very new growth on plants that leafed out on very early plants. However, there is an extremely large amount of trees and shrubs in Clarksville that had the entire canopy hit by frost. They look as if the entire tree is dead. I have some good news and bad news, and a few recommendations to help out your battered plants.

We will definitely see a reduction in spring flowering this year. Many of the rhododendrons were hit very hard, and probably killed off the spring flower crop on most plants. The flower buds of early spring flowering trees and shrubs can be highly affected by frost. The flowers were actually formed last summer and fall, and were ready to go for the spring. When they are hit by frost, the buds can be extremely damaged, and lead to reduced or no flowering. It requires a substantial amount of energy by the plant to develop flowers, so any damaged buds will not be replaced until this summer to fall, which will be the flowers for next spring.

As far as all of the leaf damage to many trees and shrubs, the majority should be fine. This is not to say that the plants have not been damaged. They will have to tap into their energy reserves to make a new flush of growth. On previously stressed plants, this will stress them out even more. The blackened leaves on the trees will fall off, and new ones will be produced later.

Anything that you can do for your plants to help them through this situation will be beneficial in the short and long term. I suggest that you mulch any plants that are not already mulched. This will help the tree retain moisture and also add some nutrients into the

ground. When summer arrives, make sure to keep your plants watered well. They will still be adding to their food reserves, as well as providing the needed nutrients and water to the growing tree. Also, a balanced slow-release fertilizer could be beneficial. You do not have to use anything too high; you just want to give the tree a little help throughout the year. Make sure to follow the manufacturer's recommendations.

We will have to wait to see the true effects of this frost. As you all know, there are no guarantees in life. I firmly believe that most plants will come out of this OK, but they will be stressed. Keeping up plant health will be a key factor in the long-term effects. Do what you can to keep your tree healthy, and it will pay you back in the future.