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### Cold Damage on Shrubs

The lowest temperatures in three years have descended upon Bartow County recently making life miserable for both people and plants. And now area gardeners are asking how much plant injury they can expect as a result of these hard freezes. The answer to this question depends largely upon your response to the following three questions. *First*, are the trees, shrubs and perennial plants in your landscape cold hardy? That is, are these plants suited to our local weather conditions and our particular climate zone? Bartow County is located in USDA hardness zone 7A which means that our winter temperatures can fall to 0o F to 5o F. Plants purchased locally from reputable garden centers and nurseries should be hardy here. On the other hand, plants that you buy, transplant or receive as gifts that are adapted to warmer climates of Florida, southern Texas or California may be tender here, and therefore, are less able to survive our colder winters. *Second*, have your plants been properly located and planted in the yard? For example, some shrubs like azaleas and camellias suffer from cold injury when placed in sunny, open exposures. Always place these plants where they will receive adequate protection from too much winter sun and wind. All plants have certain environmental requirements, so keep these in mind when planting. And a *third* question to ask is, have I taken good care of my ornamentals throughout the growing season? Have they been properly watered, mulched, fertilized, pruned and sprayed when needed to maintain optimum vigor and growth? Weak, unhealthy or poorly-maintained plants are usually the first to suffer during periods of extremely cold weather.

Look for damage: It is difficult to ascertain cold damage a day or so or even a week after a severe freeze. In most cases it may be spring before you can really evaluate exactly how much damage has really occurred. When your plants begin(or fail) to leaf out or flower later in the spring, then the winter injury will become obvious. What you may see now, just a few weeks after extremely cold weather, is a bronzing of the foliage. This is especially true of certain azaleas and boxwoods. Foliage of privet, ligustrum and camellia often turns purple after very cold weather. This discoloration is simply the plant’s response to a sudden chill and is perfectly normal. The foliage is alive, just a bit cold from the cold temperatures.

On the other hand, frozen or dead foliage almost always turns brown. In many cases leaves will curl, roll up or drop from the stems. By simply using your fingernail to scratch the bark you can determine if a branch is dead or alive. If the stem tissue is green or white where you scratch, then that wood is still alive. This wood should put out new growth in the spring. If, however, the stem tissue is brown or brittle where you have scratched, then that branch is dead. This wood should be removed in the early spring after freezing weather has passed.

Azaleas, camellias, gardenias and hydrangeas and other plants often experience some bark splitting as a result of extremely cold weather. You can see this damage on lower stems and branches near the soil surface. Injury from split bark appears later in the year as dead twigs and branches.

What to do now: If your shrubs and trees have been properly cared for then they should come through this winter with little or no problems. But do keep these tips in mind in order to lessen or prevent further damage this year:

- Maintain a three to five inch layer of mulch around plants at all times. If your mulch level falls below this, then add some more immediately. Mulch helps to insulate root systems much like fiberglass helps to insulate your home from cold weather. Mulch also helps to protect the soil from rapid temperature fluctuations, which are a primary cause of cold damage.

- Do not prune now; wait until March to shape most evergreens and summer-blooming plants. Remember to prune spring-blooming plants, such as azaleas, forsythia and spirea after flowering.

- Do not fertilize at this time. Fertilizing now, like pruning, may stimulate growth that future cold conditions would likely injure or kill. Delay fertilizing until late March or April when all danger of freezing has passed.

- Cover tender plants with old quilts, blankets or sheets to help reduce frost and cold damage. This technique may not be practical for all plants, but it can be used to protect perhaps a special shrub, small fruit trees, semi-hardy plants, etc. It may be necessary to use sticks or poles to prop up blankets, quilts or other heavy covering to prevent branches or limbs from breaking. Plastic can be used as a nighttime cover, too, but be sure to take it off on sunny or warm days to prevent heat damage to your plants.

- Wrap the trunks of young or thin-barked trees with burlap, paper or other tree wrapping materials to prevent cracks from developing. Local garden centers and nurseries can supply you with tree wrap

For more information on cold damage and caring for your plants, contact the Bartow County Extension office at 770-387-5142 or uge1015@arches.uga.edu.