

I recently received an email message from a home owner that prompted me to resurrect a topic which I wrote about eight years ago. This particular homeowner was deeply concerned that her magnolia tree was developing large visible buds and feared they were about to open. Everyone knows, should that happen, they would likely perish. As a result of this inquiry, today's message is all about buds.

For most gardeners, one of the first signs of spring is noticing enlarging and maturing buds in trees and shrubs. Perhaps, that might be the reason some people think that buds originate in the spring. The fact is the buds we now see in our trees and shrubs were formed during last year's growing season, even while the leaves were still attached. Currently, they are dormant. In the spring, when conditions are favorable, these buds enlarge and become acutely visible.

Basically, buds are embryonic tissue. Ultimately, as they mature in the spring, they possess the genetics to grow into either new leaves, new stems or new flowers. This phenomenon by itself is amazing. Furthermore, now that winter has officially arrived, I am even more astounded by a bud's ability to withstand twenty-four/seven, freezing-cold temperatures and the many other hardships associated with winter weather.

Here's my challenge. When temperatures outdoors become somewhat mild, I encourage you to venture out and examine the buds on your trees. Although most gardeners realize that through leaf recognition, the identity of a tree or shrub can be determined. Did you know that with a trained eye through careful examination of buds, one can also determine a tree or shrub's identity?

All buds are not alike. Trees and shrubs develop buds either at the tips of the branches, referred to as the *terminal buds*, or along the sides of the branches, called *lateral buds*. From species to species, buds vary in size, shape and number. In addition, lateral buds are found attached to the branch as alternate, opposite, or whorled.

Presently, the buds of trees and shrubs are safely protected with a covering of modified leaves called *bud scales* which tightly enclose the delicate parts of the bud. Often bud scales are covered with a gummy substance that serves as added protection. In the spring of the year, as the buds enlarge, the scales drop off, leaving on the surface of the growing stem a series of *bud scale scars*. By means of these scars, one can determine the age of a young branch, since each year's growth ends in the formation of a new terminal bud producing an additional group of bud scale scars as the branch begins to grow.

Attached are photos of buds on my trees. As one can see, buds vary significantly from one species to another. Notice, the main terminal buds on a magnolia tree are exceptionally large compared to the other specimens. I'm quite certain this is what the homeowner saw on her magnolia tree that caused concern.

Eastern Redbud



Saucer Magnolia



Ginkgo



Buds truly are remarkable. They are part of nature's pageantry. Although they differ, they all have one thing in common: each will begin new life next spring as either a leaf, stem or flower. Enjoy them now while they remain highly visible.