

## Mulch – A Tree’s Best Friend Part II

This week I am going to take you through the proper steps of how to mulch your trees, and also point out some of the detrimental effects that mulch can have on your tree when not applied properly.

With all of the wonderful benefits that mulch can provide to trees that were presented in last week’s column, it is common for people to think “The more the merrier. Put it down thick, and pile it high.” This is most certainly not the case. Let’s take a look on points to be considered when properly mulching, and how it should be applied.

First off, if you have existing grass around your tree, how do you get rid of it? No one wants to break their back taking up large amounts of sod. Not to worry, there is a very easy way to get rid of unwanted grass under your tree. The first step is to lower the deck of your mower to its lowest setting. Next, simply mow the area that you want to mulch. This can also be accomplished by using a string trimmer. The idea is to remove as much grass as possible and scalp the lawn. Extreme caution must be used around the trunk area. I usually leave a minimum of 8” around the base of the tree and pull it by hand. This method will protect the trunk from damage, the detriments which I addressed in last weeks column.

Now that you have your scalped area, there are two ways you can proceed. The first is to go ahead and mulch the area. The mulch will help to keep much of the grass down, but there will still be areas that it will pop back up. The second approach is to apply an herbicide to kill the grass and weeds. Products containing glyphosphate work well. A common herbicide is RoundUp. If this is the route you choose to take, there are many things to keep in mind. Read and follow the label and directions, and wear proper protective equipment. Spray when the wind is calm, usually in the early morning hours. This will help prevent the chemical from drifting into non-target areas. Also, be extremely careful when spraying near the trunk, or shrubs and flowers. Glyphosphate is a non-selective herbicide, which means it will affect any type of plant material it comes into contact with. Let the chemical work a few days before applying mulch.

So what type of mulch should you apply? I prefer wood based mulch. Double shredded hardwood is the most common choice, and it is easy to find. I also like the brown color,

as it is a more natural look. I usually do not suggest dyed mulch, simply for the fact that I am not a big fan of it. But if you like it, feel free to use it. Another great mulch is shredded pine or pine needles. It has all the great benefits, but also has another positive attribute. The bonus that it provides is that it helps to lower the pH of the soil. The pH of the soil in this area is higher than the optimal range for good tree growth. The acidity of shredded pine or pine needles helps to temporarily lower soil pH, which allows a larger range of essential nutrient uptake.

How do you figure out how much mulch you are going to need? This only requires simple measuring and a little math. The first step is to figure out the square footage of the area that you want to cover. For a square or rectangular area, just multiply the length by the width. For a circular area, which is the most common for trees, just do the following: measure the radius of the area, and square that number. Once you have squared the radius, multiply that number by 3.14. Now that you have the square footage, multiply by 0.006 for a mulch depth of 2”, 0.009 for 3”, and 0.012 for 4”, depending on the depth that you want to put down. The answer you get will give you the cubic yards that are needed to mulch the area.

Here is an example: I want to mulch a 10’ wide circle around my tree at a depth of 3”. I first need to find the square feet of the circle. The diameter is 10’, so the radius is 5’.  $5' \times 5' = 25'$ . Now I multiply by 3.14 to give me the total square footage, which is 78.5’. Now multiply by 0.009, which equals 0.7. So I need 0.7 yards of mulch.

I usually recommend 3”. Too many people think 2 – 4” of mulch does not seem sufficient, but it surely is. Applying more than 4” can be detrimental to tree health. At deeper mulch depths, it is harder for water and oxygen to reach the roots. This can lead to shallow root system development.

So now we have the area prepared, know what type of mulch we want to apply, and know how much we need. All we have to do know is spread out the mulch. Sounds simple enough. And it is, but there are still a few things to keep in mind.

First, and most important, do not use volcano mulching techniques. Volcano mulching, which is regrettably all too common in Clarksville, is when a large mound of mulch is piled up next to the trunk of the tree. Even if you follow everything else I have laid out, this sole act can lead to major problems with your

trees. One thing that you must understand is that trunk tissue is different from root tissue. Trunk tissue is not adapted to cope with being in constant contact with soil and moisture. This leads to trunk rot and decay, just as if you would have hit it with a mower. To help curb future problems, keep mulch 2" away from the base of the trunk.

Secondly, the more square footage that you can cover with mulch, the better it will be for your tree. I always recommend mulching to or past the drip line, especially on new and younger trees. With large and mature trees, many feel that it is impractical to mulch such a large area. But even as little as a 3-4' mulch ring around the tree can still be beneficial. Just remember, the more square feet of mulch that a tree has to expand its root system under, the more responsive your tree will be.

Now you have all the information that you need to properly mulch your trees. It is a relatively simple process, but you must keep all the point that I have highlighted in mind. If you follow these steps, you will be one step closer to keeping your trees healthy and happy. The earlier you start, the sooner you can see the positive benefits. On a final note, if you see your friends or neighbors using volcano mulching techniques, give them a copy of this article and point out how they can correct the problem. Each time we reach one more person, it brings us closer to stamping out this persistent and harmful practice in Clarksville's urban forest.