This article was originally written for "The Glencoe Enterprise" newspaper. My column is entitled "The Hort Report".

Most of my past week was spent running around, hanging up flyers for our tree auction this coming weekend. Along my journey, I spoke with hundreds of people from surrounding communities. Every time I am out and about interacting with people, I am asked many of the same questions. Many people want to know what the best time to plant a tree is. Others wonder how deep to plant or how frequently to water. Hopefully, I can answer some of those popular questions right now.

Spring and fall are both good times to plant. In the spring, trees are just beginning to actively grow. They have few demands before their leaves unfurl. When planted in May, plants have a month to get established before temperatures rise. Not only that, but they have a few months to root in and make food before the mercury drops again. Fall planted trees are relaxed and ready for a few months of slumber. They begin their preparation for hibernation in the middle of July. By September, they require little water. After they drop their leaves, they are almost in a state of suspended animation. All the sleepy plants need is a good drink right before the ground freezes and off to dreamland they go until things warm up again.

Most of the trees we produce are "ball and burlap". This means that they are removed from the field in spring or fall with a mechanical spade and placed into burlap-lined, wire baskets. These baskets are secured to the trees with twine and crimped tight around their root balls. After that, the sides of the basket are covered with shrink wrap. Trees are moved to the "heal yard" where their root balls are "healed in" with mulch or another moisture retaining substrate. Each tree receives its own irrigation emitter, which is staked to its root ball. All of our trees are started from bare-root stock. Bare-root means that the trees are grown in a field and then removed and sold without any soil or container around their root ball. These trees are generally dug in the fall and placed into coolers, where they are held until they are sold in spring. Our tree order always arrives in May. By fall, the trees that are planted in pots are usually rooted and ready for sale. Field planted trees take three years or more to reach the proper size for spading.

Many people wonder what the difference is between planting bare-root, "b&b" or container-grown stock? Almost all of our trees are started from bare-root materials. These trees are often close to an inch in diameter and five or six feet tall. Delivered in refrigerated trucks with their roots surrounded by damp wood shavings, the trees arrive dormant. They must be kept cool, but above freezing. Until they are planted, their roots have to stay moist and insulated. When they are positioned in the field or container, their root flares and grafts are kept above the soil line. That is why you usually see a bulge near the base each tree's trunk. While bare-root trees are the least expensive, they need to be held and planted properly to ensure their survival. Ball and burlap trees are usually sold when their trunks are two inches in diameter or larger. When they are exhumed from the field, a significant portion of their root systems are left behind. Consequently, these trees take a few years to get accustomed to their new homes. They are big to begin with, but they put on new growth slowly. Our potted trees are typically sold when their trunks are one to one and a half inches wide. They take less time to produce and are less expensive because of it. Confined by the pots, the roots of these trees experience little disturbance when they are exposed for planting. In fact, it is often necessary to score their root balls several times to encourage potted trees to grow in to their new surroundings. However, although they grow quickly, it takes a few years for these adolescent trees to come in to their own.

When you plant a ball and burlap tree, it is important to remove all of the twine and shrink wrap before you begin. Pry the wire loops that the twine was looped through back away from the trunk. This will allow you to slice the burlap off of the top of the root ball. The wire basket and the rest of the burlap are designed to be planted with the tree. Removing the burlap from the top of the ball simply prevents it from wicking moisture away from the tree's root system. Ideally, the hole that you dig should be at least a time and a half as wide as the tree's root system. What is really important, is the depth of the hole. B&B trees are heavy. Therefore, they should be planted an inch or two less deep than their root balls are tall. Over time, they will settle. The portion of each tree's trunk that flares outward should always be visible throughout its life. Potted trees should be planted at the same depth as they were at in their pots. Responsible growers make sure that their trees are planted properly at their nurseries, so that you don't have to worry about it.

Many people think that replacing their native soil with black dirt is the way to go. The truth is: it is best to plant trees in indigenous soils whenever possible. Barren aggregate and gumbo clay soils can be amended with peat moss. A ratio

of one part peat to three parts existing soil can be mixed to create a nurturing starter soil. Don't go any further than that. Backfilling with black dirt can create a bowl effect in heavy clay soils. Water soaks through the luscious soil and is contained by the dense clay. The roots essentially drown, unable to absorb oxygen from the water-logged soil. Another side effect of excessively amended soils is that they give the trees a false sense of security. Once their roots grow beyond the utopian area, they are shocked and disillusioned by their new reality. This often results in shock, stunting and delays their establishment.

So what about water? The number one question that I am asked is "how often should I water my tree?" That is a really tricky question that usually leads me to ask a bunch of other questions. How much and how frequently you water totally depends on the soil, the tree and the weather. One thing you should always do is completely saturate the root zone whenever you water. After that, the soil should be allowed to dry out a bit. This system encourages the tree's roots to grow in search of water. One of the many benefits of mulch is that it prevents the soil surface from drying out in the sun and wind. People often water too frequently, based on the fact that the soil surface looks and feels dry. Recognize that plants are much like pets. They are less thirsty when it is cool and calm than when it is hot and windy. They need more water when they are more active, such as when they are flowering and fruiting. Trees grown in sandy soils are going to go through water faster than trees grown in heavy soils. The best thing that you can do is pay attention to the weather and the environment. There is no set interval of time or amount of water than will work all of the time. An inch of water will saturate about the top six inches of soil. When you have a 24-inch tall pot or basket, you need at least four inches of rain to get the job done. Remember that it can take several years for trees to get established. Supplemental irrigation is recommended during this entire period. Even enormous, mature trees benefit from a drink during the dog days of summer. Don't you?

Hopefully, you and your tree friends will have long, happy lives together. Treat your trees like your pets. Be perceptive to their needs. They will reward you with shade and ambiance. They will support your swings and hold your bird feeders. Trees will supply you with a general feeling of well-being as you watch them grow and change, and become your legacy for future generations.



## For More Great Advice, Stop at Kahnke Brothers Tree Farm!

10603 Boone Road and Highway 212 Plato, MN 55370 (320) 238-2572 conniek@kahnkefarm.com