Spring is the time for new growth and green plants, but that doesn't mean that spring can't be a good time to plant trees too. The time between when the heat dies down and when the ground freezes is a good time to let your trees get a head start on growing the next year. However, trees that are naturally slow to establish should be avoided for fall plantings. This list includes oaks, ginkgo, hemlock, bald cypress, and fir trees. Generally the ground will be warming than spring plantings, and the roots can have a head start on growth before Nebraska winter weather sets in.

Trees are generally sold in one of four ways. They are balled and burlapped, bare root, in pot, or root bag. Each have advantages and disadvantages, and it is up to the nursery and the homeowners to weigh them. Balled and burlapped is just like it sounds. The main cluster of roots, which is called the root ball, and the surrounding soil have been dug up and wrapped in burlap material. These burlap-wrapped root balls are usually surrounded with a wire basket for support. This wire basket also enables the tree to be moved without holding onto the trunk of the tree. Bare root trees are exactly like they sound. They are sold without any soil whatsoever. In pot trees have likely been grown in pots for their whole life slowly getting shifted into bigger pots as they grow. Root bags are a newer method of doing things. They are similar to in pot, but they are fabric instead of plastic. It varies by nursery, but these have also likely been grown this way their entire life, getting shifted into bigger bags.

Balled and burlapped has the advantage of having been in the ground, and still having a lot of the soil intact around it. This soil will keep the root hairs, the tiny extensions off of a root that are the main source of water uptake from the soil, from being badly damaged. These root hairs are easily damaged and are a component of transplant shock. Transplant shock is a result of the stress put on the plant when it is moved. Balled and burlapped trees are heavy due to the soil, and can be difficult to move. When they are removed from the ground, they have a lot of their roots that have been cut.

Bare root trees are often grown in an easy to dig media, such as sand. They can be cheaper than balled and burlapped trees because they are lighter to ship. They should be kept moist until planted so that the roots don't dry out. These should be planted while dormant to reduce transplant shock.

In pot trees are generally the type that are seen the most often. They are the easiest to produce and transplant, but have their fair share of problems. Most roots will grow out, not down, but when the root hits the plastic pot, it will turn and try to go a different direction to find a route out. This results in roots that circle the pot. These roots then harden into that circling shape. As the tree grows and the roots get bigger, these roots have the potential to girdle the tree, cutting off circulation from other important roots. This can kill the tree. Precautions can be taken, however. If the circling roots are pruned before the tree is planted, girdling roots can be prevented.

Root bags are the counterargument to potted trees. They are a fabric bag that is filled with soil and used like a pot. The roots will grow into the fabric, and as the root tips hit the air on the other side, they will dry out and die. I know this sounds like a bad thing, but it actually causes the roots to be more fibrous, and it prevents the roots from circling.

One last thing to remember when planting trees is to make sure not to plant the tree too deep. If the tree looks like a telephone pole going into the ground, it was probably planted too deep. There is an area on the trunk right above the roots that is called the root flare. It is the area that the trunk changes from trunk to roots and is generally wider than the trunk itself. It should be visible when the tree is planted.

If you have any questions feel free to contact me at the Buffalo County Extension Office, at 308-236-1235, or <u>mearnest2@unl.edu</u>

If you enjoy my column, like gardening, or learning about plants, I'd like to invite you to an informational meeting for the Extension Master Gardener program on November 10 from 2-3. The Master Gardener program is a volunteer program that helps educate the public about Horticulture, and

make a difference through the volunteer hours they put in. Come learn more about the program and be able to ask questions! Please RSVP through the contact information listed above. See you soon! -Miranda