Fruit Tree Planting Tips - Doing it Right the First Time

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Tree planting is one of these important tasks that many fruit growers take for granted and don't spend enough time planning for. The focus of this article will be on providing tips for setting out a new block of tree fruit as well as planting replacement trees. The major focus of tree planting should be doing it right the first time, and not thinking about replanting trees that didn't live for one reason or another.

Care Before Planting

Proper care should be given to trees if they arrive before you are ready to plant, as is usually the case at most farms. Trees should be kept as cool as possible; a cooler is best. By keeping the trees as cool as possible, you will delay bud break for a longer time.
Be certain to check the trees when they arrive and every few days thereafter to be sure that the sawdust or other packing material around the roots is not dried out. You want to keep enough moisture close to the tender root systems to prevent desiccation. However excess moisture could also cause rot organisms to begin to develop. Fruit trees placed in the cooler should not have any apples stored in that same cooler. The cooler should be well ventilated prior to placing trees into it.

When to Plant

Numerous studies have shown over the years that planting as early as possible in the season is advisable. The key indicator to tell you when to plant is your soil conditions, and particularly moisture levels.
Be sure that soil is dried out sufficiently that it will settle quickly around the root system after planting. For the most part we talk about planting when the soil is crumbly. This means that if you pick up a handful of worked soil in your hand, squeeze it gently, and let it go, that it breaks apart or is crumbly. There is often a temptation to plant when the soil is too wet, and in some case to even mud in the trees. This is a dangerous practice, as it gets the trees off to a bad start immediately. Trees which are planted in soils that are too wet will not take off as fast, and have a chance of developing secondary problems.
The question that comes to me later in the spring is "when is it too late to plant fruit trees?" Fruit trees should be planted before warm weather. The cut-off date for mid to lower Michigan is early to mid May. Planting after that time will often subject trees to consistent day time temperatures in the mid 60s and 70s, and the tree's leaf system will break or begin to grow before the roots have established themselves well. This could cause early desiccation of the tree and result in premature tree loss.

Tree Planter, Auger or Hand Planting

The age old debate continue as to which is the best technique to plant fruit trees, with the planter, an auger or hand planting. There are benefits and drawbacks to each method.
A tree planter is generally the quickest way to plant, specially with high density orchards. However, many times fruit growers have a tendency to want to rush the planting process with the tree planter and plant

early before the soil is truly ready. Also it is much more difficult to regulate the height of the graft union when planting with a tree planter. Inconsistent graft union height will cause inconsistent growth for the entire life of a block of fruit trees.
Another drawback of using a tree planter is that there have been times when the soil does not close fully around the root systems, leaving an open slice in the soil. At times you will find an area along the row where the root systems have been exposed to air entering the soil down through the slice left by the planter. Roots then dry out because they are exposed to air and are killed.
Many people continue to plant trees with an auger. Augers work well particularly for replanting trees. The downfall in using an auger comes when the soil is wet. The edge of the hole can become greasy when it is dug. This greasy soil condition will cause an impermeable layer to develop around the hole in which the roots can not grow through. In many cases root systems of fruit trees planted with an auger when soil conditions are too wet become rootbound for several years. People with rocky soils also have difficulty planting with an auger.
One additional challenge with an auger is that of trees settling after planting. In many cases growers need to come back through their blocks of tree fruits to be sure that the graft unions are a consistent height throughout the entire planting. Most times trees need to be gently lifted out of the soil to obtain a consistent graft union height.

Hand Planting

Hand planting fruit trees has been a practice that has gone by the wayside at many farms. However, if the soil is worked well prior to planting, hand planting can go very quickly and may be more economical than many people believe.
When hand planting trees you have the best control over the entire process. You can also eliminate much of the tree settling and graft union height consistency when planting by hand.

Soaking Roots

Many growers soak the roots of their trees in water for a time before planting with 24 hours being a common time.
This could include soaking trees in a pond, in 55-gallon drums or water troughs. One word of caution about soaking trees in a pond, be certain that you don't have unwanted critters, such as muskrats, that would find a meal of tender young roots to be quite a delicacy in spring time.

Care on Planting Day

On planting day be sure to take good care of the trees between the time that they come from the storage area to the time that they are planted. Any exposure of the root systems to the sun and/or wind will cause desiccation and may cause permanent damage to the tree. Be certain that trees are in the shade while waiting to be planted and that the root systems are not exposed to wind that will cause desiccation.
The nursery that grew your trees has taken a great deal of care to be certain that the root systems are not allowed to dry out. A little extra care given to trees prior to planting will mean a greater chance of success.

Graft Union Height

Be certain that the height of the graft union is consistent throughout the planting. This is one of the most important factors to consider when planting fruit trees.

For apple and pears, generally speaking, the higher the graft union is out of the ground, the more dwarfed a tree will be. For the most part, the graft union should be about two inches above the ground level. However in some very high density orchards, the graft union may be as much as six or eight inches above ground level. The key factor is one of consistency. If all of the graft unions are the same height above ground level, then your planting will have a great chance of growing uniformly. If graft unions are close to the soil surface, scion rooting may occur.
Walk the planting two weeks after planting to adjust the height of trees after the ground has settled a bit. Again, trees planted too low can be gently lifted during these first few weeks.

For peaches, apricot, plum, and cherry, generally the graft union is at the ground line because the rootstocks used are generally not dwarfing. The exception is for plum or peach grown on dwarfing rootstock such Krymsk 1, where the graft union should be aboveground. The other exception is where the nursery tree has a long shank between the graft union and the topmost root. The tree should be planted so that the topmost root is within 2 or 3 inches of the soil surface. If trees with long shanks are planted with the graft union at the soil line, the top roots will be too low in the soil profile.

Watering

Watering trees is another important consideration in getting a planting off to a good start. It is best to water trees immediately after planting. The watering process helps to settle soil around the root system, and eliminates air pocket which could cause injury and premature death to root systems. Under Michigan conditions, most often we get rain within a week of planting. This is typically sufficient to encourage soils to settle in around the root systems and get trees off to a good start. Some springs have insufficient rainfall and watering is critical to prevent injury or premature tree death.

Staking

Staking at the time of planting is another key factor of success. Staking helps to keep the tree stationary which will encourage more growth. Stakes need to be in the ground as soon as the tree in planted.
A common question that is asked of me is what stakes seem to work the best these days. I encourage growers to use the least expensive stakes and system available to them to keep the tree stationary.
The system, which appears to be working well for fruit growers right now is the use of a single-wire trellis system. This high wire is placed six to eight feet above ground level and is used primarily to support the top of the stake. Stakes used could include conduit, bamboo or a wooden pole. Again pencil out the cost to determine which is the least expensive system.

Tree Training

Tree training is also an important consideration at planting time and could be the topic for an entire book.

Needless to say, spend a lot of time on tree training at planting time. The type of training depends on tree density, branch structure of trees and design of the block.

Conclusion

Planting fruit trees is an important part of the orcharding process, and is key to getting the block of fruit off to a good start. Please take special care to do a good job of planting, as it's the first step to a successful conclusion many years down the road.