



Apple Academy



Connie Kratzke
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Tips for Growing Apples in Minnesota: Selecting the Right Trees

Everybody is talking about apples! During the last few years, I have noticed a dramatic increase in the number of customers who want to start their own orchards. Produce isn't getting any cheaper, that's for sure! Luckily, it only takes a small investment and a little knowledge to produce fruit at home.

Success begins with plant selection.

When people shop for apple trees, their taste buds get in the way. There is just something about the idea of crunching into juicy, red apples that distracts people. They may know that they want great bakers like Grandma had or long keepers for winter use, but they may not know much about the trees behind the fruits. Romantic visions of heaping bushel baskets full of colorful, aromatic fruits fill their heads. The trick is, getting to that point. There are three important things to consider when selecting trees: ***1) the mature size of each tree, 2) their bloom times and 3) their disease resistance.***

First of all, it is important to ***know the mature size of each tree.*** Each commercially produced apple tree is grafted to ensure that its mature size and fruit characteristics are consistent. The bottom portion of the tree is referred to as the "rootstock". The rootstock dictates how large the tree will grow and how long it will take to fruit. Everything above the graft is called the "scion". The scion determines what fruit characteristics the tree will have. Each tree will have a bulge a few inches above the base of its trunk. This is the bud union where rootstock meets scion. This swollen area should be kept about two inches above the soil line at planting time. If it is buried, the scion will root and that will alter the tree's mature size. Three different rootstock sizes are widely available: standard, semi-dwarf and dwarf. I have heard tales of mini-dwarfs but am not currently aware of a source for them. Standard trees will grow about 25 feet tall and wide. Semi-dwarfs get to be about 15 feet and dwarfs about ten. It is critical to factor in some breathing room as well. Apples need good air circulation to perform well. When the air flows freely around each tree, foliage dries quickly. This does a lot to prevent fungal growth. Proper spacing also ensures access for pruning, spraying and harvesting. I speak from experience when I say that getting thwacked in the face a few hundred times by intertwining branches is not what it's cracked up to be!

Next, one must ***know approximately when each tree will bloom.*** There is no such thing as a self-fruitful apple. Two or more varieties are required for fruit to be produced. Crabapples and apples are the same species (*Malus*), so they will pollinate each other. However, at least two different cultivars must be flowering simultaneously for the magic to happen. As long as these trees are within 100 feet of each other, the bees and the breeze will do the rest! This may enable pollen sharing between neighbors! To learn about approximate bloom times, talk to a nursery professional or orchard grower.



Kahnke Brothers Tree Farm

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Open SATURDAYS ONLY: May 1st–November 1st: 8AM–3PM

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Trees that are too similar genetically will not cross-pollinate properly. This is where an experienced grower can help.

The last thing to ***consider*** before purchasing a tree is its ***disease resistance***. Breeders put a lot of time and effort into developing hardy, disease resistant plants. They do this because nursery and orchard growers know that an ounce of prevention is a heck of a lot cheaper than an ounce of pesticide. Chemicals are expensive, labor is extensive and timing is crucial. If Mother Nature decides to be a poor sport and it rains during the wrong week, an entire spray program could be compromised. In addition to having the right product to treat a problem, you need the right equipment and knowledge to apply it. There are plenty of fruit tree sprays available that are home gardener-friendly. For success and safety, reading and following all of the label instructions is mandatory; it is also the law. Getting thorough coverage at the specified intervals and stages is really the key to success. Apple scab, cedar apple rust and fire blight are the big three disease problems that everyone should be aware of. Powdery mildew can also be a problem. Preventative sprays can be used to combat most of these issues, but why go through the trouble if you can prevent the problem before you even plant the tree? Irresponsible or excessive pesticide use has severe environmental ramifications. In addition to polluting our soil and water, pesticides kill beneficial insects that fill important roles in our ecosystem. I will talk about some chemical-free ways to address common apple problems in another handout. The University of Minnesota Extension Service has great info on disease resistant apple varieties. If at the farm we have significant, disease issues with any cultivar, we phase it out during the next growing season. All of our purchasing decisions are based on landscape performance.

For more information on dealing with insects and diseases, consult my handout:
“How to Deal with Apple Issues”.



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