



APPLE ROOTSTOCKS... **WHY "STANDARD" IS BETTER FOR NORTHERN CLIMATES**

The rootstock determines the ultimate size of the tree. Generally, there are "standard," "dwarf" and "semi-dwarf" rootstocks. Choosing one or the other of these rootstocks does not influence the type of fruit yielded by a tree, but for Northern growers it can have a big effect on how winter-hardy the tree is, how well it grows, and whether it produces a crop. "Dwarf" trees are made by grafting onto rootstocks that are inherently weak growers; they stunt the growth of the tree. There is a popular notion that dwarf trees will produce fruit sooner, but in Zones 3 or 4, the use of a dwarfing rootstock can cause even a hardy cultivar to winter-kill or simply linger season after season with minimal growth and no fruit.

If you live in a northern climate with a short growing season, dwarf trees will not work for you. You need a rootstock that will grow strongly for 2-3 months and then start hardening off for winter. Dwarf or semi-dwarf apple trees do not have the hardiness, vigor, and disease resistance needed to thrive in our northern climate. For the majority of our apple trees, we use the Russian rootstock *Antonovka*, an extremely hardy and vigorous "standard" size rootstock which can produce strong growth during our limited growing season. "Standard" means only that *Antonovka* is not a dwarfing rootstock; it will not limit the growth and thus the ultimate size of the tree, but rather will allow it to grow freely to its full size, about 12-15 feet. An apple on *Antonovka* "standard" rootstock will be a much hardier, more vigorous grower than the same apple on dwarfing rootstock. If you wish a smaller tree, this can be accomplished by pruning. A well-pruned apple tree on *Antonovka* rootstock, when grown in Zones 3-5, will be equivalent to a "semi-dwarf" tree in size (10-12 feet at maturity), and it will have many advantages. For instance, your tree will have the vigor to compete with grass that grows near the base of the tree, while a dwarf tree must have "clean culture" (no sod) to the drip line. It will not need to be guyed or staked, whereas dwarf trees tend to be shallow-rooted and usually require some support. Your tree might well be producing fruit for your great-grandchildren, while dwarf trees must be replanted every 10-20 years. Finally, the crop yielded by a your mature standard tree will be many times greater than that of a dwarf or semi-dwarf tree.