A Brief Guide To Growing Fruit Trees In And Around Haines, Alaska

By Rob Goldberg

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Dedicated to the memory of Nancy and Irvin Sogge, who showed me what is possible.

My affection for fruit trees started when I was a kid wandering through the orchards of California's Central Valley. As a young adult I restored an old apple orchard in Massachusetts. I planted my first fruit tree here in Haines in 1988. I don't profess to be an expert, simply an observer.

Why Grow Fruit Trees?

Because there is nothing quite like the satisfaction of picking a ripe, juicy, sun warmed piece of fruit and putting it directly into your mouth. Fruit from a store simply cannot compare. We have about 40 trees, all planted in a less than ideal location. Despite our lack of full sun, during the summer and fall of 2005 we harvested 750 lbs. of fruit: sweet cherries, pie cherries, apples, plums and pears. In 2010, our harvest topped 1000 lbs. We ate a lot of fresh fruit and our pantry was full of various jams, juices, sauces and dried fruit. This was the result of many years of work and perseverance through many failures and disasters. It is not easy to grow fruit here. You cannot just plant a tree and expect it to produce fruit without care. I have been in close combat with moose and bears, seen my trees stripped of branches by snow, wind, moose, bears and porcupines, lost trees to cold snaps, and had my crop stolen by birds, squirrels, and yes, bears. Yes, it was worth it. The cherries and plums we grow are, by all accounts, the best that people have ever tasted.

Location, Location, Location

We're lucky here in Haines to be able to grow fruit. Locations to the north of us have winters that are too cold for all fruit trees but apples. To the south, most other places in Southeast are too cool and wet to be able to ripen all the varieties of fruit we can grow here.

Sun: Fruit trees need lots of sun, the more the better. Don't even think about planting fruit trees if your site doesn't get at least 6 hours a day of direct sun on clear summer days. Our climate as a whole is "partial shade", so any fruit tree here is already at a disadvantage. Don't handicap it further by planting it in the forest.

Site: A flat or south-facing slope is best.

Micro Climate: The reflected heat from the south side of a building or wooden fence can give a tree a real boost. The tree will flower and produce fruit weeks earlier than it would in the open. Beware of low-lying frost pockets and sites that are blasted by wind.

Zone: If you're along the water, you're Zone 5, which has a historic minimum winter low of -20F. As you travel away from tidewater and up the highway the zones decrease to perhaps Zone 3 at Mosquito Lake. Only apples will survive in this zone.

Soil: Most of the soil types in our area will support fruit trees. Drainage is the major concern. Good drainage is essential. Beware of perched water tables! Dig a hole about 18 inches deep and fill it with water. If the water doesn't drain out in a day it is not a good place for a tree.

Water: In the absence of rain, fruit trees need about an inch of water a week.

Mulching: The need for watering can be greatly reduced by mulching around your trees with alder, cottonwood or birch leaves, or seaweed. I have found that putting 6 to 12 inches of leaves around the base of each tree in October insulates the roots against severe cold, feeds the tree as the leaves break down, and cuts down on the need to water during the summer. The mulch also attracts earthworms. Mulching is the most important thing you can do to help young trees survive here. Keep the mulch on all year, but pull it away from the trunk a bit for good air circulation.

Pollination: As far as I can tell, bumblebees do most of the pollinating of my fruit tree blossoms. The problem is that there never seem to be enough of them on those cool rainy days in May when the blossoms are open. Back in the early 1900's Charlie Anway's trees did much better after he made a habit of keeping bees. In 2004 I kept honeybees. It was a very dry summer and the bees didn't do very well. We did get a lot of fruit that year, though. My bees didn't make it through the winter and I couldn't get more for 2005, but there were more bumblebees than ever. I don't know if it was the warm weather that led to more bumblebees or if their population has grown with my orchard. Open sites seem to have more bumblebees than semi-forested places. I've also found that varieties that are advertised as self-fertile do much better when they have another variety for cross-pollination. The summer of 2011 was very bad for pollination, and for fruit production in general. I have two packages of honey bees on order for May, 2012.

What Grows Here?

Pie cherries certainly, apples and sweet cherries given a favorable site. With the best of sites plums, apricots and pears can be grown here.

Heat Units: The biggest obstacle to ripening fruit here is our lack of summer warmth. It's easy to grow a tree, but it's another thing altogether to pick ripe fruit. Fruit needs a certain amount of time above 65F to ripen, but this need for heat varies tremendously from one type of fruit to another, and between varieties.

Nancy's Law: Nancy Sogge told me years ago that if a nursery catalog from the Pacific Northwest advertises a tree's ripening date, you must add 6 weeks to make it accurate for Haines. My experience has shown this to be correct. When choosing varieties, look for trees that the catalog says will ripen in July, August or, at the latest, the

second week of September. Anything later and you will probably be picking green fruit in the snow. An addendum to this is warranted. The summers of 2004, 2005 and 2010 were very warm and Nancy's Law didn't hold. Our fruit ripened much closer to the advertised ripening date. For example, I used to count on having sweet cherries for my wife's birthday August 13th, but in warm summers the sweet cherries have been finished by the end of July.

Winter Survivability vs. Early Ripening: Generally any tree rated for Zone 5 or lower will survive our winters. However, many trees that can survive our winters will never ripen fruit here. You must choose early ripening varieties!

Rootstock: Many types are available, with pros and cons for each. Dwarf trees are easier to pick, and bear fruit at a younger age, but they can easily be crushed by heavy snow and are easy pickings for moose. Standard, or full size trees withstand snow and moose better, live longer, and produce more fruit, but they take 6 to 8 years to begin bearing and are harder to pick. Semi-dwarf trees seem to be a good compromise, and they can be maintained at 12 to 15 feet.

Planting: The best time to plant a fruit tree is ten years ago. The next best time is now. If you're mail ordering trees, order your trees in the winter and plant around May 1. Trees will be sent dormant. Open the package immediately and soak the roots in a bucket of water for 24 hours. Do not let the roots dry out! Dig a hole deep enough to plant the tree so that the graft is about 2" above ground level. A foot deep is about right. Make the hole as wide as possible to allow the roots to spread. You can add some organic fertilizer or compost, but most soils are OK on their own. Firm the soil around the roots, water well, and mulch heavily with leaves or seaweed. You can also buy potted fruit trees from a local nursery. One advantage to this is that these trees are often bigger than ones that can be sent in the mail. They also cost more due to the labor involved in planting and caring for them at the nursery.

Pruning: An entire book can be written about this, but there are a few general rules. It is best to prune in the early spring when the trees are dormant. Pruning stimulates growth, so late March or April is the best time. Do not prune in the fall. You do not want to stimulate growth with winter approaching. A nursery tree will come pruned. Just trim off broken roots or branches. In the following year prune down to 3 or 4 main branches. When the tree is about 8 feet tall it may be best to prune out the central leader to encourage a more open center. Prune crossing branches or those that crowd the center of the tree. Cut branches off flush. Never leave stubs.

Obstacles to Success

Moose: Your favorite tree is nothing but a winter snack for moose, your biggest enemy. Build a fence, the bigger, the better. The 8 foot wide rolls of 6 inch welded wire are economical and work well. If you don't keep the moose from getting to your fruit trees, you won't have fruit trees. I have seen them reduce a mature, 15 foot high tree to a stub.

Bears: My orchard has been attacked by black bears, with devastating results. They love sweet fruit, and once they get it, they will not be deterred by pepper spray, slingshots or dogs. The solution is an electric fence. I ran a single strand around my moose fence at a bear's nose height and had no problems thereafter. Every year bears are shot in fruit trees in Haines. I believe we can coexist with bears. If you're serious about growing fruit, go electric. The charger and wire are not too expensive and well worth the investment. You don't have to do this until your trees start to produce fruit.

Winter: Cold temperatures with wind and no snow can kill even Zone 4 trees. Mulch heavily with leaves in October to protect the roots. Heavy snow can strip off branches or snap whole trees. Stake up small trees in the fall. Drive a 2x2 into the soil next to the tree and then wrap the tree, branches and all, to the stake with twine. Protect the branches of larger trees by tying rope from the branches back to the trunk. Shake snow off trees during storms.

Birds: Crows, robins and Steller's jays love cherries. Use netting. These birds laugh at scarecrows, shiny tape and fake owls. There is a product available that you can spray on cherries to make them taste bad to the birds, but I have not tried it. I am generally opposed to sprays and have never used them.

Insects: Leaf roller caterpillars will eat the leaves. Look for rolled leaves in spring and pull them off. I have had a bit of a problem with a small beetle eating apple blossoms, but I have not yet resorted to sprays. I search inside the blossoms and pick the beetles off. Many organic sprays, from oils to protective clays are available.

Mold, mildew, and scab: I haven't had too much problem with these, but sulfur spray reportedly works. Wet spring weather seems to lead to more scab on apples. It is best to buy scab resistant varieties.

Spring cold: If you have a very open site that gets lots of sun in February and March your trees can break dormancy too early. If the sap starts running too early a cold snap in late March or April can kill the tree. The solution is to paint the trunks of the trees white to reflect the winter sun or to use white plastic tree guards.

Rodents: During winter, voles can gnaw the bark at ground level, under the snow. This often girdles the tree and kills it. Wrap the trunks with hardware cloth or use plastic tree guards.

At this point you are probably thinking, "How will I ever grow fruit with all these obstacles?" There is no getting around the fact that growing fruit here takes preparation, commitment and diligence. You cannot just plant a tree and ignore it.

The Greenhouse Option

In 2011, I came to the conclusion that growing fruit trees in a greenhouse may be the solution to many of the problems we encounter in trying to grow fruit here. The

structure will keep animals and birds away from the trees, the extra heat will extend the season and help with ripening the fruit, snow and wind won't break the branches and rain won't crack the cherries.

I built a 24' by 48' by 16' high wood-framed structure and covered it with a clear, woven greenhouse plastic from Northern Greenhouse Sales. Their plastic is really tough, lasts a long time and isn't too expensive. In May, 2011 I planted 24 dwarf and semi-dwarf fruit trees in the greenhouse. The plastic didn't go on the structure until late August, but I did notice that on the sunny days, the temperature inside was about 20F warmer than outside.

Planted in the greenhouse are apples, sweet cherries, plums, pears and apricots. I also have strawberries and raspberries, and I am attempting grapes. Some of the varieties match the trees I have outdoors. This will be a good experiment to see the difference the greenhouse makes in the dates the trees flower, when the fruit ripens and the size and sweetness of the fruit. The other varieties are experimental. There are many types of apples, pears and plums that will not ripen outdoors here, but probably will in the greenhouse. I chose only varieties that were just a few weeks outside of our "ripening window", that is, trees that the catalog said would ripen in mid to late September in Washington State.

Varieties

Pie Cherries: If you want reliability and low maintenance, and your site is not totally sunny, this is the tree for you. There is no need to buy young pie cherry trees because anyone who has mature trees also has numerous suckers coming up in their lawn or garden. Dig them up with a ball of dirt attached and plant. If you feel a need to buy a pie cherry, Montmorency is the classic variety. They are self-fertile, but will set more fruit with another tree to pollinate. Pie cherries require pruning. If left untended they will form a shrubby thicket. Prune back to one trunk and a few branches to end up with a tree instead of a thicket.

Sweet Cherries: More people here should grow sweet cherries. They are, along with plums, by far the sweetest fruit you can grow here. They're incredibly good. It is difficult to save them for winter because they are so good eaten fresh, but they make great jam and juice, and are wonderful dried into "raisins". They ripen from mid July to early August. Stop watering when the cherries start to turn red. All varieties will crack when it rains heavily during ripening, but varieties bred for the dry summers of Eastern Washington, such as Bing and Rainier are more susceptible. Look for Stella, Lapin, Black Tartarian, Kristin, Sam, Hartland and any others that are crack resistant. One solution to cracking is to put down a tarp around the tree if rain is imminent. Excess water taken up by the tree's roots is what causes an almost ripe cherry to crack. Cracked cherries must be removed from the tree immediately before mold sets in. Often the fruit is still useful for jam. Don't pick the fruit too early. Most varieties will turn a deep dark red to nearly black when they are at their best. Some varieties are advertised as self-

fertile, but having 2 varieties for pollination is best. Yellow varieties such as Sweet Ann and Emperor Francis are less attractive to birds. Trees I have planted with the Giessen or Gisela rootstock have done well. They grow quickly and have fruited in their second or third year in the ground. Sweet cherry trees require little pruning after the initial shape is established. I've been told that the pits of sweet and pie cherries are great for smoking salmon, but I haven't tried it.

Apples: For sheer volume of fruit it is hard to beat apples. We have been getting about 350 lbs. each fall and keeping them in a cold room into December. You must get early ripening varieties. The old standard here is the Yellow Transparent. Some of the old Anway trees around town are a hundred years old and going strong. The apples don't keep long, but they're great for pies and sauce. An improved yellow apple is Lodi. I have had these grow to the size of softballs. They are consistently our most prolific variety and are pretty good eaten right off the tree. Some good newer varieties that will ripen here are Jersey Mac, Akane, Williams Pride, Sansa, Zestar and Pristine. Williams Pride has done well for us. The apples are scab free, taste good and keep well. However, they are consistently smaller than advertised. There are also some varieties of Fuji called Beni Shogun and September Wonder that are a bit later ripening than the varieties mentioned above but would probably ripen here in a good location. You will need two varieties for pollination. Apple trees require pruning yearly. You must learn to distinguish between fruit spurs and water sprouts and prune off the latter.

Plums: The plums we have grown are by far the best we have ever eaten. However, we had to wait a long time to get them. Our trees were in the ground eight years before they started to flower. Plums come in two categories, European and Japanese. We have mostly Japanese varieties - Methley, Beauty and Shiro. Our European plums are an unknown variety that came up as a sprout from one of Nancy Sogge's trees. Hers was a sprout from an abandoned orchard in the Columbia Gorge. It is a large yellow-orange plum with sweet, firm flesh. From four trees: two Methleys, a Beauty and the one from Nancy we have harvested 150 lbs of plums. Japanese plum trees are fragile. The branches break easily from snow or wind. You must tie up the branches in the winter. Some are advertised as self-fertile, but again two varieties ensure better pollination. Japanese plums require pruning every year, Europeans less.

Apricots: I have not had success with apricots, and I have tried. At one time I had four varieties going. One lasted for about six years and flowered but never set fruit. The others only made it through a winter or two. However, there is an apricot tree in Port Chilkoot that produces a few bowls of fruit in warm summers. If you have a warm, sunny site, apricots might produce for you. Again, despite advertisements for self-fruitful varieties, get two for better pollination.

Pears: Pears require patience. Like the plums, our pear trees took about eight years to begin flowering. We had our first signifcant pear crop in 2005. I have Ubileen and Bella DiGuigno. I had a Morrettini also, but after six years in the ground it failed to revive one Spring. The Ubileen produced well but the pears weren't great to eat. Instead of ripening properly they tended to rot from the inside out. Bella DiGuigno flowered but did not set

fruit. Two varieties are needed for pollination. Not much pruning is required for pears. I think they require a lot of sun and heat to make sweet fruit.

Asian Pears: I have tried and lost many Asian pear trees to winter cold. The rootstock, OHxF, is rated for Zone 5, but the fruit wood does not seem to be able to survive at 0`F. All the trees died from the top down from winter kill. The only survivor in my orchard is Hamese. It must pollinate with the European varieties because it produced a box of fruit in 2005. The fruit was crisp and juicy but not very flavorful, even after a month or two of storage. It may be that pears need more heat than our climate has to offer to really become sweet.

Peaches and Nectarines: I haven't tried them, but like apricots they might grow here in an ideal location. I suspect that the trees are fragile like Japanese plums, which are also bred in snowless climates.

I hope this brief guide has helped you and not discouraged you from growing fruit trees. If you have further questions please call me at 766-2707.