



Community Orchards

By Guy K. Ames
NCAT Horticulture
Specialist
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This publication introduces community orchards and discusses the history of the community orchard movement and the motivations behind producing fruit in a community orchard. It offers a step-by-step guide to starting a community orchard and advice on choosing fruit trees and plants most likely to provide successful harvests, including apples, pears, grapes, brambles, and other, unusual fruits. A profile of a community orchard program and a list of further resources are also included.



Community orchard planting at a North Dakota reservation. Photo: Thomas Kalb, NDSU Extension

Introduction: What Is a Community Orchard?

In England, where the community orchard movement began in the early 1990s, the first community orchards were “abandoned,” privately owned orchards that were in danger of dying from neglect or being pushed out by development. Instead, they were saved by citizens concerned about green space, the survival of old varieties, local history, healthy eating, and the beauty of the landscape. This often involved raising money to purchase or lease the orchard. Such an orchard might be deeded or leased to a

local municipality, a charitable trust, a “friends of the orchard” group, a food co-op, or the residents of a group housing project.

Given the different types of owner groups, it should be easy to understand that, while an orchard might no longer be a private, commercial concern, it is not necessarily open to the general public but, rather, open only to the particular “community” that now owns or leases it. For instance, an orchard owned by a food cooperative is technically a community orchard, but the membership of the co-op is the community, and access to the orchard may be restricted to just that



group. Likewise, a community orchard on school grounds might be restricted to the teachers, students, and parents that comprise the community.

In the United States, the creation of community orchards is most often being accomplished by the re-purposing of public land (usually space in a public park) with essentially open public access. The City of Seattle's P-Patch program is an example of this type and is probably the nation's most ambitious community garden and orchard initiative (www.seattle.gov/neighborhoods/ppatch/). But there are many examples of other ownership arrangements, such as community orchards on Native American reservations, one in the N Street Cohousing community in Davis, California, and a few associated with schools, colleges, and even churches. There is one in St. Louis founded to serve international immigrants and refugees, one in Baltimore for abused women, and one in San Bernardino for troubled youth. Those are just a few examples.

What, then, do all these types of community orchards have in common? Or, in other words, what is a community orchard? It is simply an orchard that is not being managed for private profit and is cared for by some community of people.

The Community Orchard Movement

The community orchard movement seems to have started in 1992 in England when Common Ground, a quirky arts/environmental group that aims to promote "local distinctiveness," first put forward the idea. The idea quickly caught the public's imagination, and now hundreds of community orchards exist in England (King and Clifford, 2008). Much of the original impetus of the movement revolved around saving endangered old orchards containing heirloom cultivars peculiar to a given region or locale, or exhibiting "local distinctiveness."

Though this movement started as a form of historical preservation, it quickly revealed other good reasons for community orchards:

At a time of unprecedented alienation from nature and knowledge about where our food comes from, Community Orchards are reviving interest in fruit growing. They provide a way to share knowledge and horticultural skills and stimulate us into growing our food again. In the face of climate change, the need to reduce food miles makes the provision of locally grown food ever more urgent.

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Persimmons, Asian and American

Blueberries: Organic Production



Community Orchard of West Seattle preparing to plant their first orchard in 2011. Photo: Narcissa E. Nelson



Volunteers planting at Sabin Community Orchard, Portland, Oregon. Photo: Katy Kolker

Community Orchards can offer places for quiet contemplation and [centers] for local festivities; they act as carbon sinks, reservoirs for local varieties of fruit, and refuges for all manner of [wildlife](King and Clifford, 2008)

The situation and conditions in the United States are different, but community orchards are popping up here with increasing frequency. Although none seem to have started as an attempt to preserve an existing orchard, preservation of heirloom varieties joins the various other reasons—education, access to food, nutrition, aesthetics, and sanctuary—to establish a community orchard.

In the United States, most of the community orchards are springing up in cities, but, perhaps surprisingly, some are being planted in rural areas, too.

Community Orcharding Is Not Community Gardening

With the local food movement spawning a spate of new community gardens across the country, the next logical step, horticulturally, is community orchards. But there are distinct and important differences between annual gardening and perennial orcharding.

The relative permanence of an orchard demands far-sightedness. An ill-chosen variety can cost years of time and care before it is discarded as impractical or chronic diseases exact their toll. Failure to properly amend a soil before planting is not easily rectified after a tree is established. And a pruning, fertilization, and training regimen needs to be well-considered at the start and somewhat consistent through the years, or the orchardists are risking aggravating diseases, inducing biennial bearing, delaying the age of fruiting, or otherwise creating long-lasting problems for themselves and the plants.

Furthermore, the long-lived nature of orchards in a public setting requires legal considerations such as a long-term lease. A community orchard group needs some assurance that their long-term commitment won't be compromised by a change in municipal policy, and, conversely, the municipality (representing the general public) or other land-holding entity needs to know that the property will not be degraded in any way—physically, aesthetically, or monetarily. It's also necessary to assign liability to the various stakeholders in case of damage to property or person. Consequently, it is in all parties' interests that legal contracts be enacted protecting the land itself, the municipal

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government, and, of course, the public—including the community orchard group—over a long period of time. Liability insurance will almost certainly be necessary.

On the other side of these somewhat daunting responsibilities lie the joy, the nutrition, and the beauty of these plants and their fruit. In many places, people simply don't have the space for an orchard or vineyard. How many people have tasted tree fruits or grapes truly ripened and right off the tree or vine? What might be the short- and long-term value of exposing children to this experience? Would it be possible to benefit the

diet of some segment of the community? Lastly, what might it mean, symbolically or otherwise, that the people of the community have made a long-term commitment to a piece of land and the plants on it?

Ten Steps to Starting a Community Orchard

The American Community Garden Association (communitygarden.org) has offered a 10-step outline for starting a community orchard. Retaining the 10 major headings, the following is an expansion of that outline:

Urban Fruit Gleaning Projects

Gleaning is the act of collecting or gathering food that has not been harvested. In many U.S. cities, fruit trees in people's yards or in public spaces often go unharvested, sometimes even becoming a nuisance. Now, however, in many of those cities there are volunteer groups that, with homeowner permission, harvest the fruit from individual trees and donate most of the harvest to local food banks, churches, and other charitable groups.

Portland (Oregon), Seattle, San Francisco, Minneapolis-St. Paul, Salt Lake, Baltimore, Olympia (Washington), Missoula, Chicago, Honolulu, and many more American cities have experienced this modern phenomenon that has Biblical roots ("When you reap the harvest of your land, do not reap to the very edges of your field or gather the gleanings of your harvest. Do not go over your vineyard a second time or pick up the grapes that have fallen. Leave them for the poor and the foreigner." Leviticus 19:9-10). A Web search using the key words "fruit gleaning" and the name of your town or city should let you know if there is such a project in your community.



A Portland fruit-gleaning crew with their harvest. Photo: Katy Kolker

While not technically "community orchards," these gleaning projects do have an obvious kinship with the former. In fact, in at least one city—Portland, Oregon—both initiatives are managed out of one office, probably because there is significant overlap among the goals and the necessary skills. (See Katy Kolker profile on page 14.)

In most of the gleaning projects, unharvested trees are first identified by volunteers or by soliciting the owners through media stories, computer bulletin boards, and other means. These trees might be mapped on city maps with notations about probable harvest dates. With the owners' permission, volunteers pick the trees, usually keep some for themselves, give some back to the owner (if requested), but donate most to food banks and the needy.

1. The first step is to **develop a plan**, and the first order of business regarding the plan should be to determine the goals of the orchard, including whom the orchard will serve. In England, where the community orchard movement started, the first goal was saving local varieties in extant older orchards, which were threatened by age but even more by urban development. Other goals might include fruit production for the orchard workers as well as the general public, “private” fruit production on rented plots, fruit production for food banks and the needy, beautification (edible landscaping), and education for children, as well as adults, interested in learning how to grow fruit.

Once a general plan is decided upon, a leadership team should be named to chair the committees necessary to oversee the general plan—committees like fundraising, volunteer recruitment, site selection, legal, and, of course, planning.

The leadership team will establish priorities and among those should be choosing a name and logo for the orchard.

2. The second step is **finding a site**. In England the sites are likely to be older orchards already established in the community on private land but threatened in some way and in need of preservation. In the United States, this is not usually the case, and a community orchard group will most likely be looking at public land to find a suitable site. However, depending on the resolve and resources of the group, it is possible to consider finding the best site regardless of whether it's public or private, and purchasing or leasing the site if it's on private land. Still, most groups will be looking at public land like parks, a botanical garden, or school grounds, all of which have the built-in advantage of having some public traffic (assuming that visibility is among the goals of the group). Sites that already have community gardens are natural candidates. The site search need not be limited, though, to schools and parks as there is often land in public ownership (city, county, state, federal) that has not been purposed and may not be readily recognizable as public. Check with local officials.

A good orchard site is sunny with well-drained soil and access to water. It should not be in a frost pocket (an area where cold air can settle), and south-facing slopes should be avoided because they tend to induce fruit trees to bloom too early, thus making their blossoms subject to frost damage.



*Entry sign to community garden and orchard in North Dakota.
Photo: Thomas Kalb, NDSU Extension*

Determine the history of a site to ascertain that there is little to no risk of contaminated soil from previous use (e.g., industrial site, waste dump).

3. **Get a contract/lease.** Most fruit trees don't start bearing until they are three to four years old. Moreover, because initial investment in plants, fertilizer, and land preparation can be considerably more for an orchard than for a garden, a long-term agreement with the owner (be it public or private) is a necessity.

At this point, legal assistance would be advised. If the government entity you are working with doesn't provide legal services, look for a civic-minded lawyer willing to do pro bono work for your cause.

4. **Get money and materials.** In large part to make things easy for the people who want to give your group charitable donations of money and materials, consider forming a 501 (c)(3) non-profit corporation.

Don't limit your funding searches to just local sources; depending on your goals and focus, there are national groups that might be interested in donating. One notable example is the Communities Take Root project sponsored by Edy's Fruit Bars, which awarded fruit tree orchards to deserving organizations in communities across the country.

Other focus areas might suggest appropriate donors. For instance, are you focusing on

A *primary consideration is choosing plants that do well in your climate and soil without the intervention of pesticides.*

production for food pantries or other needy groups? Does your orchard have a strong educational component? Is historical preservation a main goal? Your goals should suggest to you individuals and groups who would be happy to donate to your community orchard. And don't forget gardening groups, farm supply stores, landscapers, and nurseries; they are a very likely source of donated tools and plants.

A website or at least a Facebook site is practically mandatory today for any group doing public fundraising. A Facebook site with names and photos provides transparency to reassure potential donors that you are a legitimate and worthy organization. Likewise, media attention provides both promotion and legitimacy. Arrange to be interviewed by local news media and make sure they know about any events (e.g., groundbreaking, planting, a major donation, notice of a workshop at the orchard) that are coming up. The more familiar your name becomes, the easier it is to solicit donations.

Remember that fundraising needs to extend beyond simple establishment and plan accordingly. You might be able to charge or take donations for workshops given at the orchard site. Almost everyone enjoys a party, so musical benefits or other events, especially those that might celebrate harvest or wassail (the traditional English salute to an apple orchard on January 17), can be good fundraisers. Sales of fruit might even be appropriate.

5. Find helpers. Identify sources of volunteers, including master gardeners, garden club members, nursery operators, and Cooperative Extension personnel. Remember, perennial fruit culture is more complicated than regular gardening, so it would be advantageous to find experienced fruit growers. Public schools, 4-H, and FFA (Future Farmers of America) organizations should be notified. High school and college horticulture programs are another good place to look.

The same way it helps with fundraising, media attention can also help you find helpers. Also consider giving presentations about the community orchard to other community-service organizations (e.g., Rotary, Lions Club) and garden clubs.

Neighbors at the orchard site are likely and natural volunteers, too. In fact, without some "buy-in" by the immediate community near the orchard, chances of success are low. In the Portland, Oregon, community orchard system, for example, no

orchard is started without being partnered with a neighborhood association or other nearby partners (Kolker, 2012).

6. Design the orchard. In designing the orchard, the first consideration should be the project goals from Step 1. For example, if a primary goal is production for food banks, heirloom varieties or exotic species should give way to varieties proven to produce abundantly in your area. As another example, an orchard with horticulture education as a major goal will probably want to maximize the number of species in order to provide the broadest basis for examples and principles.

Another primary consideration is choosing plants that do well in your climate and soil without the intervention of pesticides. First, plants have to be chosen that will actually survive the climate and soil types to which they will be exposed. After that, it is practically a given that any orchard open to the public will have to be managed without synthetic pesticides. It matters little what the experts say in this regard; the simple truth is that parents will not tolerate a situation in which they feel, rightly or wrongly, that their children may be exposed to the risks of pesticides.

Consequently, the most disease-resistant, pest-tolerant, climatically adapted plants must be chosen from the start for the pest/disease/climate complex of your region. It will do little good to plant a Bartlett pear in the eastern half of the United States only to have it destroyed by the ravages of fire blight. Likewise, a muscadine grape with great disease resistance, but not cold hardy past USDA Climate Zone 7, will simply not survive the cold winters of New England. Much more on this subject of species and variety choice is provided later in this publication.

Another important choice involves the size and scale of the orchard. This is tricky, of course, but the leadership team must try to gauge the level of support that will be necessary and available over the years. If there is any question about such support, remember it is best to start small and excel than to start big and fail. Successes will build community interest and support. Failures will imply that your group doesn't know what it's doing. It's harder to correct mistakes in perennial plantings than in annual gardens; therefore, be humble, ask questions, and think small...at least at first.

The physical characteristics of the site must be considered, and foremost among these for the

purposes of fruit growing are shade and drainage (both air and water). Most, but not all, fruit plants will do best in full sun. This relates primarily to fruit bud initiation by the plants, but it also relates to disease management, as quick drying of plant surfaces inhibits growth and infection of many plant-pathogenic fungi and bacteria. But there are fruit trees, like pawpaws, that will thrive in the shade, though they will bear more fruit in full sun. Also, there are fruit species “out of their element,” like raspberries growing in the South, which will actually benefit from a half-day’s shade, especially if that shade moderates the southern and/or western exposures. Also, when laying out the orchard, consider the relative shadow cast from taller trees: in most cases the tallest trees should be planted on the northern border of the site because that will produce the least shade on the orchard site as a whole. Moving from North to South, the tallest trees come first, then plant the medium-height shrubs, next the berry bushes, and finally the ground-huggers (strawberries, lingonberries).

Regarding water and air drainage, as already discussed in Step 2, the whole site should have good air and water drainage, but fruit plant species exhibit varying tolerances to “wet feet.” Cherries (and most of the other species in the genus *Prunus*), for instance, are notoriously intolerant of heavy or poorly drained soils. Pears and blackberries, on the other hand, are probably the most tolerant of wet conditions. If plants intolerant of wet soil need to be planted where drainage is questionable, consider raising the individual plant site by berming the soil.

Finally, regarding the orchard design, consider adequate walkways, access for mowers, whether fencing is desirable, possible need for a storage shed, and the aesthetics of the whole planting, including the entrance with signage. You’ll probably want an attractive sign with the orchard group’s logo, but it might also be advantageous to have educational signage, as well as posted rules (“Please, don’t climb the trees!”). Grapevines or espaliered fruit trees on a trellised entry can be very beautiful and inviting.

7. Prepare and plant the orchard. A good first step on-site is to post a sign to let people know that a community orchard will be established here. The sign could also function to solicit more volunteers.

Ideally, ground preparation starts well ahead of actual planting and includes activities such as

performing a soil test, increasing organic matter (turning under a cover crop or incorporating compost or manure), dealing with existing vegetation (noxious weeds like bermudagrass can be serious, long-term problems, especially in berry plantings); adjusting soil pH with lime or sulfur; building trellises for grapes, raspberries, and espaliered fruit trees; and ditching and/or berming to deal with drainage. These types of things are difficult to do after planting long-lived trees and bushes, so try to anticipate future needs and obstacles.

Planting day should be a fun event. Make it so. It’s a chance to get some publicity, so notify the press ahead of time and post announcements on social media sites.

Make sure that the planters understand the basic rules of planting; you’ll probably want to have teams led by people with some expertise. You could also use this opportunity to have your first workshop, “How to plant fruit trees and berry plants correctly.”

Make certain at the end of this day that plants are watered in and that someone is in charge of watering during the crucial establishment year.

8. Involve youth. Through public school biology classes, 4-H clubs, youth centers, church groups, and the like, a community orchard can engage kids. Youth will serve as positive ambassadors for the project because they’re going to tell others, including their parents. Making sure the neighborhood’s children are involved is just the right thing to do, but it can also help keep down vandalism.

9. Manage the orchard. As for what must get done for the sake of the plants, managing a community orchard is much the same as managing any orchard. The primary difference is managing who does the work. Volunteers will come and go, but the management of the orchard must have continuity.

Among the activities the leadership must manage are:

- Encourage activities at the orchard; this will generate public interest and reduce vandalism. (These activities do not necessarily have to be horticultural; for example, weddings could be allowed.)
- Establish contact people in case of emergency.
- Organize work crews and work days.

Moving from North to South, the tallest trees come first, then plant the medium-height shrubs, next the berry bushes, and finally the ground-huggers (strawberries, lingonberries).

Profile: Common Vision–School Orchards for California

Parts of the following are excerpted with permission from Ukiah Daily Journal, September 21, 2011.

Within the past decade, Common Vision's school orchard program (<http://commonvision.org/orchards> and www.facebook.com/plantfruittrees), famous throughout California as Fruit Tree Tour, has directly impacted 80,000 students by transforming over 180 low-income schools and community centers into abundant orchards with the planting of over 4,800 fruit trees.

In 2005, Megan Watson, her husband, Leo, and Michael Flynn were working as volunteers planting vegetable gardens with students at continuation high schools in Los Angeles. When they introduced donated fruit trees, the kids got really excited and felt like this was something that would last a long time, a gift they could give to the future. Inspired by their own students, the three founders of Common Vision realized they wanted to plant more fruit trees and work with students and schools throughout the state of California. With their idealism and one bus, they initiated the project.

"We had the bus back then because we were doing biofuel education and touring permaculture farms. To begin the tour we called friends and teachers who were already working with school gardens throughout the state. Since then it has been word of mouth carried by school garden networks, local food activists and fruit tree lovers," says Megan Watson.

She continues, "We are an all-volunteer organization which travels in the spring and fall to plant fruit trees in school gardens throughout the state. This year we have worked with over 100 volunteers and our most recent two-week tour consists of 10 volunteers. Although it sometimes can be overwhelming to live and work communally with a small group of people, we have an incredible level of harmony working as a team. It has made it possible to accomplish things that we never would have thought possible and there are things we can do together that we could never have done on our own."

"We tour the state in the world's largest fleet of veggie powered vehicles. We have two buses, a box truck for trees, a road support vehicle, a pickup truck and a veggie Mercedes for errands. We are funded by foundation grants and corporate sponsors including Organic Valley, Nutiva, Vital Landscaping, and Netafim. Our trees are garnered from large commercial nurseries and smaller regional ones. I even grow some of them myself. One exciting aspect here in Ukiah is working with the sheriff's garden project. The inmates have done a beautiful job creating gorgeous trees."

"We want to see kids taking part in creating a healthy future and help them to have access to and connection with real food that can nourish all of us. That is something that seems to be missing more and more every day in America, but we hope to change all of that."

Returning from outside where he has just planted another tree, Michael Flynn, co-coordinator, explains, "I came to understand environmental issues ultimately as social justice issues that disproportionately affect the poor locally and around the world. Being part of a generation of people ready to take care of the environment grew in importance to me. When we give to nature we are caring for future generations. Of all the tools to inspire children and adults alike, the fruit tree is long-living, sweet, and symbolic of what we need to be doing. We are passionate about kids having access to real healthy food and being part of sustainable solutions in their own school yards and communities."



Michael Flynn, co-founder of Common Vision, works with students planting trees at Grape Street Elementary School in Los Angeles. Photo: Anna Purna, used by permission of Common Vision

- Solicit and train volunteers.
- Monitor and take action for disease and insect pest problems, weeds, wildlife damage.
- Use the website to keep everyone informed of the activities and needs of the project.
- Arrange for regular meetings of the leadership team at the orchard.
- Establish a plan for distributing the harvest.
- Contact the news media when the harvest season starts.
- Clean up the orchard and protect plants before winter arrives.
- Recognize volunteers and key project “friends” (sponsors) for their efforts.
- Organize educational events such as pruning workshops.

10. Reassess the project. Any long-term project should undergo periodic reassessments. Build such reassessments into the initial charter. Consider such things as:

- Any new needs for the project to address?
- Future strategies for funding?
- Any new resources available? (New support from sponsors may appear once they see the progress and “legitimacy” of the project.)
- What worked and what didn’t?
- Changes needed in organization structure or leadership?
- Organize an end-of-year meeting and celebration.

Start with the Right Plant to Avoid Pests and Diseases

Get the right plant from the start to minimize problems and risks. For instance, a Bartlett pear in most of the eastern United States would not stand a chance against fire blight without well-timed sprays at bloom, something that is unlikely in a community

orchard setting. Consequently, simply avoid Bartlett and plant pear varieties that are highly resistant to fire blight (see Pears on page 10).

Don’t overlook uncommon, unusual fruit species. Sometimes the best fruit plants for organic or similar management aren’t commonly known or planted in your area. For instance, two natives to most of the eastern United States, pawpaws and American persimmons, aren’t widely known but are generally very easy to grow without pesticides. Similarly, though not indigenous to this country, jujubes, haskaps (aka, honeyberry or edible honeysuckle), and Asian pears (but only the blight-resistant varieties) are well-adapted and easy to grow in much of the United States. There is more on unusual species later in this publication.

Remember, regardless of a community’s cultural roots and preconceived notions of what an orchard is, apples simply won’t do well in the Deep South, and pomegranates can’t be grown in Montana. You must grow what does well in your climate and soils (and probably without pesticides), and if it’s unfamiliar to the larger community, there is your first educational opportunity.

It might be difficult to source the right plants at your local big-box store, but, thankfully, Web searches can reveal nurseries that can ship the right varieties of the right species to you. One good place to start a web search is the NAFEX (North American Fruit Explorers) nursery page (www.nafex.org/links.php).

A community orchard in a public space is not likely to be allowed to be sprayed with chemical pesticides, regardless of their relative safety. Moreover, it’s unlikely that public parks, school grounds, or other typical community orchard sites have the capacity to spray other than with backpack sprayers that are only effective on small trees, vines, and bushes.

It’s also a given that a community orchard will be small by commercial standards. There won’t be rows of apples, rows of pears, and such; there will be a few apple trees and a few pear trees. Thus, one of the major problems will be avoided, and that’s the ease with which pests and diseases move within blocks of single species (e.g., apples) and, worse, single varieties of single species (e.g., Gala apples). Nevertheless, it would still be helpful to impede pest and disease spread by separating plants that share diseases and pests. For instance, pears and apples both share susceptibility to fire blight,

You must grow what does well in your climate and soils (and probably without pesticides), and if it’s unfamiliar to the larger community, there is your first educational opportunity.

which can be spread from one tree to the next by blowing rain. Plant them apart to minimize the chances of such spread.

With that said, there are organic pest control techniques and products that are essentially non-toxic, presenting no risk to people who frequent the orchard. A perfect example is Surround™, a finely ground sprayable formulation of kaolin clay (a type of clay used in Kaopectate™ and toothpastes) that functions as a repellent to many insect species. Other great examples include natural enemies such as lady beetles, beneficial nematodes, and parasitoid wasps, which can be purchased and released. The use of such organisms usually has to be precise and timely in order to be effective, but applying them properly offers another opportunity for the orchard to serve as a teaching tool.

Organic pesticides (those approved by the Organic Materials Review Institute, omri.org) might have limited applicability in a community orchard. Orchard managers need to be aware that some of these, though they are of natural origin and generally short persistence in the environment, can present dangers to non-target organisms, including humans. When planning to use any pesticide, including organic pesticides, do your homework, follow label directions, and only act with the approval of your pest control committee.

A great resource for pest management questions is ATTRA's *Biorationals: Ecological Pest Management Database* (<https://attra.ncat.org/attra-pub/biorationals>).

Choosing the Right Plants

Apples

In the parts of the West where apples are climatically adapted, most apple varieties can thrive, especially if they have a modicum of disease resistance. The fruit will probably experience some insect damage, but non-toxic control methods are available for most of the common pests. The best pest management technique, however, might be tolerance of insect damage, especially if it can be coupled with education about pests and pest management.

Apples are problematic in the eastern United States because of several key pests and diseases. However, problems can be minimized by selecting

the correct varieties (especially the newer super-disease-resistant varieties) for local conditions and by assigning responsibility for pest control to a point person(s) who understands the major pests and the non-toxic control techniques and timing for them.

If—and this is a big if—1) the correct, disease-resistant varieties are planted; 2) trunk borers are dealt with effectively; and 3) some pest damage to the fruit is acceptable, then apples can be grown successfully in the East with just general common-sense care: weed control, watering, and pruning. However, failure to get the right disease-resistant apple varieties for the diseases endemic to a given region will result in a lot of disappointment and possibly even tree death.

For much more detail, see ATTRA's *Apples: Organic and Low-Spray Production*.

Pears

Pears, both European and Asian species, are among the easiest tree fruits to grow organically as long as fire blight-resistant varieties are chosen for the orchard. In the West, fire blight is much less prevalent but can still be a problem. In the East, fire blight can be devastating.

For much more detail, including a list of blight-resistant varieties, see ATTRA's *Pears: Organic Production*.



Blake's Pride pear, an example of a fire blight-resistant variety suited for community orchards in the eastern United States. Photo: USDA

Stone Fruits

Stone fruits—members of the genus *Prunus*, like peaches, nectarines, apricots, cherries, and plums—are even more difficult to grow than apples in most of the eastern United States. In fact, it's probably accurate to predict that without regular insecticide and fungicide sprays, more than 90% of a peach, nectarine, or plum crop anywhere in the eastern United States will probably be lost to the combined depredations of diseases and insects. This dour prediction is somewhat less applicable to sweet cherries and apricots, but even they will be subject to huge losses (and ugly losses—the brown rot renders fruit a rotten, grayish-brown mush).

In the East, the only stone fruit that will usually resist the multiple threats to which other *Prunus* spp. succumb is the humble tart cherry (*P. cerasus*), a species distinct from the sweet cherry (*P. avium*). The heirloom tart cherry variety Montmorency (Thomas Jefferson grew it) and other tart cherry varieties will usually produce abundant crops of beautiful, glossy-red fruits with virtually no care. (If powdery mildew becomes a problem on the leaves, OMRI-approved, baking soda-based sprays like Milstop™ can manage it). Even pruning is usually unnecessary except to remove damaged branches and to thin out some limbs. Birds are usually the only serious pests, and they can either be allowed to share the crop or scare techniques (e.g. flash tape, aluminum pie plates, inflatable “owl”) can be employed to keep their appetites in check. One caveat bears mentioning: cherries require a well-drained soil. Heavy clay soils or sites where water doesn't readily drain off can induce root diseases. This is true for most fruit trees, but cherries are especially sensitive to “wet feet.”

In much of the West, stone fruits can survive and produce without regular fungicide or insecticide sprays. Apricots in Albuquerque or sweet cherries in Seattle and Sacramento are probably very good choices. Still, community orchard planners should make certain to talk to experienced stone-fruit growers before making species and variety choices.

For much more detail, see ATTRA's *Peaches: Organic and Low-Spray Production*.

Grapes

Grapes need to be trellised or otherwise supported, but the effort required can be repaid with

the creation of beautiful shady arbors that could accent an entrance or provide a cool, tranquil spot for reflection and meditation.

As with many of the other fruits discussed here, organic grape culture is easier in the more arid West, but there are a few varieties that can be grown successfully in the East with no fungicides, and a few more that can be grown with one or two well-timed (when the first shoots are about three to six inches long and again about two weeks later) organic sprays for black rot, the major disease of the fruit.

In much of the South, muscadine grapes (*V. rotundifolia*) can be grown without any fungicides whatsoever.

The ATTRA publication *Grapes: Organic Production* provides information regarding varieties and care.

Blackberries and Raspberries

These bramble fruits are among the easiest fruits to grow, East or West. Raspberries are best in the North, and blackberries in the South, though there is a region of considerable overlap where both can be grown (check with your local Cooperative Extension for recommendations). So-called “primocane bearing” types of both raspberries and blackberries can considerably simplify management by allowing a single mowing of the planting during dormancy. This eliminates the more tedious removal of the canes that have just fruited (floricanes) from the emerging new canes (primocanes), as is necessary with the older biennial-type varieties. Additionally, there are now thornless blackberry varieties with excellent flavor that take the pain out of berry picking.

ATTRA's *Organic Culture of Bramble Fruits* contains much more information.

Unusual or Uncommon Fruits

Often the trees or bushes that will do best in a community orchard situation are relatively unknown.

Mulberries are a good example—*Morus rubra* or *M. nigra* can produce gallons and gallons of delectable fruit. *M. alba*, the white or Russian mulberry, on the other hand, yields berries that are usually bland and insipid. *M. nigra*, the black mulberry, is native to warm climates and will suffer winter damage or die in areas where the temperature dips to zero or below. But where it

In much of the West, stone fruits can survive and produce without regular fungicide or insecticide sprays.

can be grown it is a crowd pleaser. In a Davis, California, co-housing community, a large black mulberry tree is, according to community members, bustling with chattering, climbing, purple-lip-stained children when the fruit is ripe. This species is well known in much of Europe and Asia and is an important commercial crop in much of the Mideast. Red mulberries can be almost as tasty as the black mulberry and are cold hardier. Mulberries are tolerant of a wide variety of soil types and soil pH and can survive both drought and flood.

Pawpaws are also worthy of planting in most of the United States, excepting the very hottest and very coldest climates. They have pollination problems that can be overcome by hand pollination (use a small paint brush to move pollen from the flowers of one tree to the flowers of another), but other than that, they are relatively carefree. Even deer don't care to browse on a pawpaw. The largest fruit native to North America, the pawpaw is a nutritional powerhouse, surpassing most other fruits and even claiming a small amount of protein (similar to a banana). Named and grafted cultivars bear fruits with flavors compared to mango, pineapple, banana, and other tropical fruits. They are beautiful, tropical-looking trees that rarely exceed 20 feet in height and consequently are valuable additions to a landscape. Even though they are indeed descended from a tropical family (the Annonaceae) and look it, they are hardy into southern Michigan, hence the old monikers "Michigan Banana" and the more mellifluous "Indiana Banana."

For more information see ATTRA's *Pawpaw—A "Tropical" Fruit for Temperate Climates*.



Pawpaw. Photo: Kirk Pomper, Kentucky State University



American persimmon. Photo: Guy Ames, NCAT

Persimmons (*Diospyros virginiana*, native American persimmon and *D. kaki*, Asian persimmon) are great choices for community orchards. In the West, the Asian persimmon is a proven low-input/high-return tree, and in the East, the native American persimmon similarly gives and gives with very little human care. Just about the only problem is that unripe fruit of all American persimmons and some varieties of Asian persimmons can be mouth-puckering astringent. The solution is simple: wait until the fruit is fully ripe.

More information is contained in ATTRA's *Persimmons, Asian and American*.

Honeyberry (*Lonicera caerulea* var. *edulis*) is a very cold-hardy species of honeysuckle with sweet and tasty fruit. Although the honeysuckle family includes over 200 species of vines and shrubs, almost all them are used solely as decorative plants. This edible and very hardy species is native to Eastern Siberia, the Russian Far East, and Northern Japan, where, from ancient times, the native people have gathered and consumed the fruit in large quantities. Honeyberry is valued for its tasty blueberry-like fruit, for its extremely early ripening, often two weeks before strawberries, and for its exceptional hardiness, to minus 40° F or below. Great for fresh eating, honeyberry also makes delicious preserves. Honeyberry can be grown throughout most of the United States, but, as such a new crop to this country, specific variety recommendations haven't been established for varying regional climates or zones.

The **pomegranate** (*Punica granatum*) can make a nearly care-free tree for warm, sunny, semi-arid climates (USDA Zone 7 and south), if they are planted in a well-drained soil. They are attractive shrubs or small trees (15 to 20 feet usually) that

generally bear abundant crops with little coaxing. Like many fruits, pomegranates are enjoying renewed popularity because of the health benefits attributed to them.

Juneberry or Saskatoon (*Amelanchier alnifolia*) is an easy-to-grow shrub native to most of the northern half of the United States and into Canada, but also adaptable to the upper South (Virginia, North Carolina, Tennessee, and the Arkansas Ozarks). The Northern Plains Indians often used it as the fruit component of pemmican. The berries look and taste like blueberries but with an almond aftertaste from the edible seed. They are, however, not closely related to blueberries and are much easier to grow, not being pH sensitive or so drought susceptible. Harvests can be quite large and are spread over two to three weeks in May or June. Though this is already a very serviceable plant, Canadian fruit breeders are working on improved varieties for commercialization.

Gooseberries and currants (*Ribes* spp.) are great candidates for community orchards, especially in cooler climates (gooseberries are more heat tolerant than currants, but the upper South is probably the southern limit for them). Perhaps thought of most often as ingredients in pies and preserves, both gooseberries and currants are tasty right off the bush if allowed to ripen fully. They contain significant amounts of vitamin C and other nutrients.

The **elderberry** (*Sambucus nigra*) is a native plant with a remarkable natural range from Maine to Texas. With large panicles (the flower and fruit-bearing structure) of fragrant white flowers turning to blue-black fruits, elderberry shrubs are beautiful in the landscape. The elderberry is experiencing a revival of interest because of its many health benefits stemming from powerful antioxidants in the fruit. The leaves and canes are mildly poisonous and eating more than just a little of the raw fruit can give one a bellyache, so its choice as a community orchard plant must be considered in that light.

Blueberries (*Vaccinium* spp.) are nutritious fruit with few pests, but they are finicky about soil pH and soil water, facts which make them questionable choices for many community orchards. As members of the Rhododendron family, they require an acidic soil around pH 5.0. Moreover,



Elderberries. Photo: Robert & Mihaela Vicol

they do not have root hairs, as do most other plants, obligating growers to provide constant drip irrigation during the growing season. Complicating the irrigation issue, they are intolerant of standing water because it can favor a devastating root disease. Outside of locales where the wild blueberry grows, inclusion of blueberries in a community orchard needs to be carefully considered.

See ATTRA's *Blueberries: Organic Production* for more information.

Other fruit plants are available; the list above was not intended to be exhaustive. There are many unusual and little-known perennial fruit plants that might be suited to your specific conditions. For instance, there are tropical fruits that would be adapted to Southern California, Florida, and the Rio Grande Valley. Here is a short list of other possibilities, included mostly to stimulate your interest: jujube, aronia, mayhaw, goumi, fig, autumn olive, sea buckthorn, lingonberry, and hardy kiwifruit. A Web search will reveal details about these fruits.

For more ideas, consult the website of the North American Fruit Explorers (nafex.org), a group of both amateur and professional horticulturists dedicated to the discovery, cultivation, and appreciation of superior varieties of fruits and nuts.

Profile: Katy Kolker of the Portland Fruit Tree Project

Katy Kolker, co-founder and current Executive Director of the Portland Fruit Tree Project (PFT, portlandfruit.org), is an earnest and energetic young woman. What started as a concern for Portland's poor has turned into a model program for other cities to emulate.

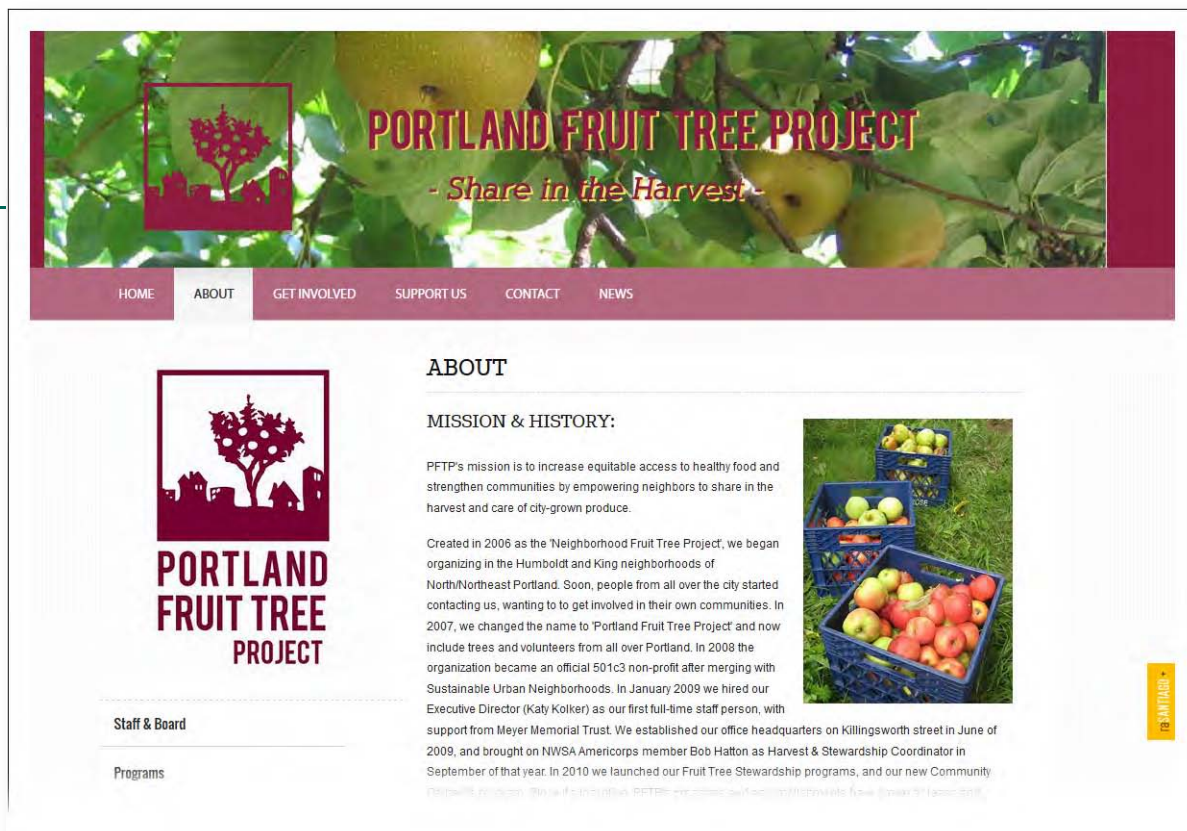
In 2006, Kolker began an urban fruit-gleaning project that takes volunteer harvesters to the yards of willing homeowners to pick fruit that might otherwise go to waste. The volunteers keep about half the fruit for themselves (usually the "seconds" or slightly damaged fruit) and donate the rest to Portland food pantries. If the homeowner is for some reason unable to pick the fruit for him- or herself, the volunteers will also leave a portion at the home. In 2010, PFT harvested and donated over 30,000 pounds of fruit to Portland's needy.

Not satisfied with this heroic project, in the fall of 2010 Kolker and volunteers, in concert with the Sabin Community Association, started what was to be the first of several community orchards in Portland, the Sabin Community Orchard. The site was a grassed and sloping public walkway (not a park) and already had two cherry trees and an apple tree on it. Eight new fruit trees—figs, plums, Asian and European pears, persimmons, quince, and apples—were added in February 2010, and more trees and fruiting bushes and vines were planted in the fall of 2010 and spring of 2011. The site now has understory plantings around many of the fruit trees, water-catching swales along the slope, and beautiful signs explaining the space to passersby.

The community orchards are perfect sites for training. Sabin Community Orchard sponsored several "Work & Learn Parties" in 2012 on topics such as winter pruning, guild planting (from Permaculture ideas), orchard tours, fruit thinning, pest and disease management, low-tech irrigation, summer pruning, and more. These workshops, open to everyone regardless of age, function to maintain and improve the community orchard and to educate the participants so that they can better care for fruit plants in their own yards.

Kolker and her group wisely insist on partnering with neighborhood associations or similar neighborhood groups. The initial planning and organizing is done by all partners with the eventual goal of transition of leadership to the neighborhood group. Without such "buy-in" from the people who live in the neighborhood, the orchards probably won't receive the care they require.

Also, to further ensure that the orchards are taken care of properly, each community orchard has one "Orchard Steward" who volunteers to be the lead person keeping an eye on the orchard for one year.



References

King, Angela and Sue Clifford. 2008. Community Orchards Handbook. Common Ground, Dorset, England.

Kolker, Katy. Executive Director, Portland Fruit Tree Project. Phone interview with author. September 19, 2012.

Further Resources

U.S. Cities with Community Orchards

Bloomington, Indiana

www.bloomingtoncommunityorchard.org/site

Chicago, Illinois

www.chicagorarities.org

Philadelphia, Pennsylvania

<http://phillyfoodjustice.wordpress.com/2012/03/27/philadelphias-community-orchards-expanding>

Portland, Oregon (See the Katy Kolker profile on page 14)

<http://portlandfruit.org/community-orchards>

Seattle, Washington

www.seattle.gov/neighborhoods/ppatch

See also: <http://fruitinwestseattle.org>

Seattle probably has the most active community orchard program in the nation, with more than 37 orchards and fruit gardens, small and large, on City of Seattle-owned land, from which volunteers harvested over 1,500 pounds of fruit in 2011. Nine of these orchards are currently maintained through a partnership between Department of Parks and Recreation, volunteers, and a community-based non-profit organization.

Publications

Starting a Community Orchard in North Dakota. 2011.

By Thomas Kalb. North Dakota State University Extension Service Publication H-1558. Bismarck, ND. 52 pp. www.ag.ndsu.edu/pubs/plantsci/hortcrop/h1558.pdf

A remarkably comprehensive publication for anyone wanting to start a community orchard anywhere. The only thing that limits it to North Dakota (or similar climates) is the choice of species adapted to the Northern Great Plains. Includes sections on contracts, liability insurance, little-known community orchards, funding opportunities, and much more. Highly recommended.

Potential Funding Sources for Community Orchards (National)

Fruit Tree Planting Foundation's Communities Take Root Orchard Program

Who May Apply: Nonprofits, NGOs, public schools, or government entities serving a charitable purpose

Amount: Applications are accepted on a rolling basis and remain on file until there is an opportunity to award an orchard.

Deadline: Ongoing

Contact: www.ftpf.org

Green Education Foundation and Gardener's Supply Award

Who May Apply: Schools and youth garden programs that have demonstrated impacts in the lives of kids and their community

Amount: \$5,000

Deadline: September

Contact: www.greeneducationfoundation.org

Lowe's Charitable and Educational Foundation

Who May Apply: 501(c)(3) tax-exempt nonprofit organizations and public agencies in communities where Lowe's operates stores and distribution centers

Amount: \$5,000 to \$25,000

Deadline: One grant can be submitted per year, no deadline

Contact: Visit Lowe's stores for an application or

<http://responsibility.lowes.com/community-relations>

Tom's of Maine 50 States for Good

Who May Apply: Nonprofit organizations involved in grassroots community projects

Amount: Five winners each year; six finalists share \$150,000; top award is \$50,000

Deadline: Ongoing

Contact: www.tomsofmaine.com/community-involvement/living-well/project-sponsorships

USDA Specialty Crop Block Grant Program

At least one state, North Dakota, has used this source to fund a community and school orchard project administered through the North Dakota Department of Agriculture.

For more information, contact Emily Edlund, North Dakota specialty crops grants specialist, at (701) 328-2191 or Edlund@nd.gov.

Youth Garden Grants Program/National Gardening Association and Home Depot

Who May Apply: Schools and community organizations with child-centered garden programs

Amount: \$500 to \$1,000

Deadline: December 2013

Contact: www.kidsgardening.com/ygg.asp

Community Orchards

By Guy K. Ames, NCAT Horticulture Specialist

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