Getting Started with a Poison-Free Orchard

Our Mission:

To offer personally tested fruit and nut plants that grow in zone 2 through zone 6 for the home orchardist. To share the Simple, Natural and Poison-Free methods that we use to make your fruit growing easy.

Today we're going to show you how to grow a healthy orchard without poisons or spending lots of hours in your yard. We have become successful by utilizing all the permaculture, agroforestry and organic orcharding information out there, finding the absolute best ideas in it, and then simplifying it and we will show you these tips, tricks and secrets. In a nutshell, SNAP Orchards are created and set up by mimicking nature.

Poison-Free Orchards:

For us and for our children, the Poison-Free aspect of a SNAP Orchard is the most important part. I cannot emphasize enough how destructive most pesticides, herbicides and fungicides are to the environment and our lives. We've found that natural sprays, basically ones you can make yourself, are the best and only ones needed in our orchard. Will every fruit be perfect? No! But every fruit ***will*** *be healthy and that reason alone is worth spending time and energy growing your own orchard.*

Nature doesn't require sprays and protection from insects and disease. Most farming today is handled in an allopathic manner, meaning when there is an issue it is attacked with sprays and manual intervention. We prefer to look to naturopathic methods to support the health of the plants and soils, building the health of the ecosystem to help ward off attacks.

The main sprays that we make for our trees include water kefir, garlic oil and liquid composts, everything except the garlic oil can be made at home. The garlic oil is inexpensive and lasts a very long time, especially for the benefits you'll receive for it.

We even suggest avoiding all organically approved sprays. Chemicals like Rotenone and Pyrethrin, approved for organic use, have known neurological issues for humans, very high toxicity to fish, high toxicity to birds and swine, are slightly toxic to wildfowl, and residues are persistent in the environment. Just because a chemical is made from a "natural" product does not make it okay for organic growing.

Create Your Own SNAP Poison-Free Orchard:

Growing your own fruit need not be complicated or expensive. Look to what you see in the natural world and attempt to replicate it in your backyard. Plant a variety of plants and trees, and don't plant all the same type together.

Choose hardy and disease resistant varieties that are proven in your climate. Use natural sprays that you grow and make yourself to build the health of your plants and the soil. Growing through SNAP methods, you too can have a simple and healthy ecosystem that feeds you right outside your back door.

We utilize multiple indigenous bacteria and fungi to improve the plan health and resistance to disease, equal to utilizing a naturopathic approach to human health. If we have to till, we add in Water Kefir, Kelp Meal and Compost Tea to the soil, immediately improving the soil health which, in turn improves the plant health.

Instead of row cropping which requires tilling continuously or running the risk of invasive grasses, we utilize multiple layers of plants which work harmoniously to create a natural mulch, keeping the area directly under the canopy low in weeds.

Traditional farming uses a monoculture, or large areas of one crop, approach. We incorporate a polyculture planting style. By intercropping annuals with permanent trees, shrubs and plants, we are able to reduce pest loads. Nature rarely produces a monoculture as this style of farming provides a perfect harbor for pests and disease.

By planting many different types of plants, we mimic nature, making pests and disease have to work harder and reducing the issues that we experience with them. If a crop does not grow well after trying multiple different solutions to resolve the issues, we chose not to grow it or utilize it only as a trap crop.

How to Mimic Nature and Incorporate into a Backyard Orchard

- Diversify your species: Don't plant only one or two items, plant many! A healthy forest doesn't have just one type of tree, it has multiple species of trees, shrubs, vines, plants, ferns, fungi, and lichen which draw in all sorts of birds, insects, mammals, reptiles, and more.
- Create Symbiotic Relationships: Many plants and animals grow better with each other. The 3 Sisters method of planting corn, beans and squash are a wonderful example of this. Companion plantings are beneficial in many ways to each party in the relationship
- Ensure Balance: In nature if something gets out of balance, another species comes in to take advantage of this. Currently in Maine, we hear about the Spruce Budworm and White Pine Blister, which kill profitable forests that were planted without the balance of multiple species. The result of a monoculture is another species can easily move through it to take advantage of this.
- Resiliency: Simply put, grow many different types of the same species. If one does not flourish, another may. When it comes to food we ensure a longer season and a good harvest with growing many of the same.
- Go Vertical: Nature is not one dimension, utilize the variations of height you see in the forest to take advantage of the land you have. Add trees, vines, shrubs, herbaceous plants, ground cover and fungi.
- Mimic Nature: Know your soil, shade and moisture levels, find plants that like them, and plants lots of them.
- Succession: In different seasons you will see different plants growing and taking up space in natural ecologies. Emulate this by planning to have no dead space at any point in the year. Plant annuals to take up land space where your new perennials are growing. Plan plants to put in when early, mid, and late season ones are finished. Cover your garden with mulch to mimic the forest floor.
- Regenerate: Utilize all "waste" product right on your own property. Compost, animal manure, grass cuttings and tree cuttings are all used to increase fertility and do not need to be thrown out.
- Stop tilling: Utilize mulching, compost, cover crops, lasagna gardening, and hugelkulture. Lay down organic matter and allow the earth's own organisms to do the work for you.

Replicate an ecosystem at home

In the orchard, add in as many different types of trees, shrubs, and plants to replicate an edge of woodland system. Then create the underground ecosystem to feed them.

Building Healthy Soil

Soil is the digestive system for your trees and plants.

Healthy soil has a lot of moving parts. It should include:

- *Bacteria* - can have over 75,000 beneficial types that provide localized nutrients to plants
- *Fungi* - the driving force that moves nutrients to plants from soil from long distances (miles) away
- *Protozoa/Nematodes/Micro-arthropods* - Are part of a predator/prey relationship going on underground. Their excrement provides plant soluble food sources.

Any tilling breaks up the food web in the soil. This can take a long time to repair, but there are methods to speed this up. Mulching, companion plants, and soil food such as fish hydrolysate, kelp meal and chitin based supplements. Surface application of healthy compost will reintroduce biology that may have been damaged or destroyed during the tilling process.
Healthy trees require a good foundation in a balanced system which feeds the tree and provides the ecology, which encourages the holistic health of you orchard.

It is is the horsepower below the ground not the horsepower above that counts

Healthy Orchard Soil = edge of woods style healthy ecosystem with many flowering plants.

How to get there:

- Mulching your trees out to their dripline is a good start toward healthy soil which contributes strongly to their health.
- Mulch around your trees with natural wood mulches such as the ones found at landscape suppliers. Stay away from rubber tires, dyed mulches, cedar mulches, or any other synthetic mulches or mulch ingredients.
- Include many companion plants, as described in the Companion Planting section, in your mulch bed under the tree to help develop a healthy ecosystem.
- Prune out broken and/or dead wood allowing the tree to direct energy to fruit producing limbs.
- Avoid pesticides, herbicides, fungicides or biocides to keep the natural order in balance.

There are instances in which utilizing allopathic methods to save a well-loved fruit tree. A bad outbreak of disease, such as fireblight, calls for strong medicine and it is best to resolve the issue than allow the disease to ravage the orchard or the local community of trees.

Encourage Pollinators + Beneficial insects

Add in many flowering plants of all sizes and types.

Our favorite orchard companion plants include:

Comfrey: an excellent nutrient accumulator. Pollinators love the flowers. Put a few leaves in your compost pile and it WILL break down faster. To utilize the excellent abilities of comfrey, chop and drop it. Never rototill it into the soil unless you'd like lotsmore comfrey.
The plant can easily get out of hand; however, we have not had this problem, we're always trying to get more from it. On the other hand, we have an acquaintance who rototills his land every spring and cannot understand why he cannot get rid of his comfrey, he has more every year. So grow with caution.

Yarrow: fabulous perennial with great cut flowers throughout the season. It naturally mulches the area it grows in leaving behind copper, nitrogen, and phosphorus. Out competes weeds. Comes in many colors. Said to keep the raspberry borer away and we have had mixed success with it.

Echinacea: perennial plant that increases gently for years. Butterflies flock to this plant for the pollen and colorful flowers. Bees love it too. Excellent herbal remedy for tinctures and teas.

Beans & Peas: one of the most productive nitrogen fixers! Instead of putting them in your garden, consider growing them under your fruit trees.

Black/Honey Locust Trees: leguminous nitrogen fixer that feeds other trees around it. Pods are good winter animal forage. Can be harvested to keep small and used for firewood or rot resistant posts.

Borage: An annual herb that prodigiously self seeds, coming back year after year. The leaves and flowers are edibles with a cucumber like taste. Its highest use is that it accumulates trace minerals to the surface and provides one of the most sought after flowers for beneficial bees and wasps. Walking through a borage patch provides great opportunity to observe all sorts of happy bees.

Lemon Balm: beautiful herbal plant with citronella compounds that keep all sorts of insects away, great pest confuser. The bees really like this one, too. Makes incredible herbal tea that keeps summer on your mind all winter long. Can self seed, so cut flower heads off it you'd like it to stay contained.

Red Clover: dependable and low cost cover crop/her. Helps break up heavy soil and adds a moderate amount of Nitrogen. Suppresses weeds very well. We use the red flower heads for a taste honey and general tonic herbal tea. Great for grazing animals as well.

Daffodils: are excellent at out-competing grass within the tree ring. Plant a ring around the drip line and the trunk provides protection against voles and gophers as well. Once planted, they are virtually a no-care plant that blooms and multiplies year after year. Excellent beneficial insect attractor that stops blooms about the time the orchard's in full bloom. These plants also do not mind the harvest time as they are well past their prime in summer and beyond.

Chives: perennial herb that helps prevent scab. Use in a tea to spray on leaves. Pest confusion and gently spreading ground cover. Excellent in the kitchen too!

Bee Balm: aromatic herb that is a very hard perennial native to our area. In the mint family with flowers that pollinators love. Emits lovely spicy odor which can function as a pest confuser in the orchard. Comes in dwarf and tall versions and reblooms all season if you cut it back. One of the first signs of spring is the greening of new bee balm (monarda) leaves in our orchard. Top notch ornamental that outcompetes weeds wherever it's planted.

Dill: Annual in our climate that readily self-seeds. Feeds all sorts of pollinators. Excellent in the kitchen.

Lupin: herbaceous perennial that fixes nitrogen from the air and is central to our Maine views! Lepidoptera feed happily upon these and are very valuable in your orchard.

Viola: hardy, self-seeding annual that feeds all sorts of pollinators, it is totally edible and stabilizes soil while looking absolutely fabulous!

St. John's Wort: an attractive ground cover and soil stabilizer. Once established, the plants need no care, and this makes them ideal for out-of-the-way locations. You can also use it as an edging or to mark boundaries and pathways where you don't want to obstruct the view. Excellent pollinator attroactor

Dandelion: One of our favorite native herbs, this tap rooted perennial is an excellent dynamic accumulator. As one of the first flowers of the season, they are a very important nectar source for pollinators. The herb is good for all animals, especially us. Excellent food, excellent for the soil and fabulous for your trees. Don't kill them!

Install Your Trees.

Choose your location well. Fruit trees love sun, ensuring that your fruit ripens and has good sugar content. Your location should have at least six hours of sunlight, eight is even better. You want to have soil that is rich in nutrients and can retain moisture. Also, ensure that there is room for your choice tree to grow to it's full size.

Trees are best purchased as bare-root trees. Planting them in the spring is the preferred choice for northern growers, ensuring that trees have enough time to become established before winter. Trees should never be planted during summer as the weather is too extreme and the soil holds less moisture.

The first thing you must do is remove the grass or sod from the location in a three foot circle. Then dig a hole big enough for the roots to sit in comfortably as well as grow easily. If you soil is heavy clay or compacted, dig up to twice as wide and deep as your trees roots. When removing the soil from the hole, keep the topsoil and subsoil in separate piles and avoid mixing the soils together.

Place the tree in the hole you just dug. Make sure that the graft line - the location on the tree where the scion wood is grafted to the rootstock - is above the soil line. Feel free to ask for help identifying this location if you are not sure.

Hold the tree plumb and backfill the hole. Begin backfill using the subsoil first. Pull out any rocks that land on the root system. Do not place any sod back in the hole. Push your hand into the soil to help eliminate any air pockets that could collapse under heavy rain.Press the soil in carefully with your heel and smooth out the top layer.

You can add a thin layer of compost to the surface before mulching. Add a minimum of two inches of a natural wood mulch to the entire surface. Water the tree slowly with half of a 5 gallon bucket of water. Lightly heel in the moist soil to firm up the tree, re-rake the surface of the mulch and make sure the tree is labeled.

We recommend NOT using any fertilizers in the trees' hole to ensure that the tree sends its roots deep in search of nutrients. You can add in ¼ cup of kelp meal to help provide key micronutrients that are slow releasing.

If you are planting trees on dwarfing root stock, now is the time to stake it. Install one 4"x4"x8' rot resistant post or 1"-2" metal pole with at least 2' to 2 ½' in the ground. This post is for structural support and will tower over the newly planted tree, this is ok. Use a wide, flexible tie

material (narrow or sharp edges are more likely to cause wounds to the tree due to friction). The tree should have the ability to move some, you're just looking to prevent toppling.

Now, after planting and staking, if needed, add a layer of mulch around the area you have dug to help your tree hold its moisture level and create a fungally dominant soil which helps your tree thrive.

Water as you go

As you install your trees, give your tree a good, deep drink of water. Half of a 5 gallon bucket of water will work here. We use pond water with all of its nutrients, but regular water works great too.

Avoid overwatering! I'll say that again! **Avoid overwatering!** Unless you are in a drought area, avoid watering your trees. If you plant in the spring, there should be enough natural water in the soils within cold climate growing zones to feed your tree.

The only time we water our trees is the day we plant them. We want to thoroughly soak the mulch and dirt to get the tree started. When you water, trees keep their roots shallow and tend to be more susceptible to drought and uprooting.

Just to note that if you are in a long term drought, water no more than once a week for the first year only. Water with a 5 gallon bucket and drench soils well. This is only necessary if the soils are very dry, very deep.

If the future few weeks are dry, do this once a week until it is established. Mulch helps hold in the moisture and prevents us from having to do this in our orchard.

Only water for the first year unless you're in an area that is experiencing drought.

In summary...

Tree Health Made Easy

- Buy healthy trees
- Buy disease resistant varieties
- Buy trees that grow well in your USDA Growing Zone
- Remove ANY and ALL grass/sod/weeds within at least a three (3) foot diameter (and up to 6') of where the tree will be planted
- Mulch with natural woodsy mulch only, at least two to four inches
- Water at planting and never again unless in a severe drought. In the case of severe drought, water once weekly with one ½ of a 5 gallon bucket for first year only
- Correctly train tree for the first six years
- Ensure new mulch is added on a yearly basis
- Train trees for first 3-6 years, prune lightly after
- Thin fruits after petal fall
- In spring, bi-weekly throughout the season and at any sign of disease spray with homemade sprays

Follow through with these basic steps and you should be well on your way to healthy trees that produce beautiful fruit. Feel free to contact us at contact@wintercovefarm.com with any questions you might have and Best Wishes to you on your fruit growing journey!

WinterCoveFarm.com

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