

## **Growing Peaches in the Backyard.**

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Tips are provided here to get peach trees off to a good start by proper care in the first few years.

The peach tree is relatively susceptible to damage by cold temperatures. Temperatures of -13°F or lower will generally destroy most peach flower buds and temperatures lower than about -17°F will cause damage to limbs, trunks, and leaf buds. Trees can be damaged by rapid temperature drops following a period of mild weather in early fall or early spring. Trees that are weak due to age, previous cold damage, borers, herbicide damage, rodent damage, or insufficient nutrition are more prone to problems caused by harsh winter conditions. Peaches in sites on higher elevation usually have fewer problems due to cold compared to low areas where cold air tends to settle.

### **Purchasing Trees**

Purchase trees from a reputable garden dealer or nursery. Dormant medium-sized trees (1/3 – 3/4 inches in diameter) usually perform best. Most peach varieties are self-fruitful, so they do not require a different tree species for pollination. Trees for the Michigan climate should have one of the following rootstocks: Bailey, Lovell, Halford, Chui Lum Tao, or Tennessee Natural. Avoid Nemaguard, Siberian C, and Citation. Siberian C has good mid-winter hardiness but tends to wake up too early in the spring thus blossoms often are damaged. Guardian rootstock, developed in the SE United States, has performed well so far, but we have only limited experience in Michigan to date. Pumiselect is a dwarfing rootstock that can result in a very small tree in sandy conditions and not well in heavy soils either.

### **Varieties**

There are many fine yellow flesh peach varieties suited to the Michigan climate. Varieties such as Madison and Reliance have a reputation for hardiness but are of medium quality. Peach varieties with decent hardiness and good to excellent quality include Harrow Diamond (early), Starfire and Red Haven (midseason), Redskin (late August), and Harcrest (early September). Belle of Georgia, Canadian Harmony and Loring are favorites for fresh and canning but tend to be less tolerant to cold temperatures. White peach varieties grown in Michigan include White Lady, Blushingstar, Carolina Belle, and China Pearl. Non-melting (cling varieties that stay firm when canned) yellow fleshed canning peaches for the Michigan climate are Babygold 5, Vulcan, Vinegold,

Virgil, and Venture. The latter four varieties have better resistance to bacterial spot than Babygold.

Nectarine varieties suited for Michigan include Mericrest, Hardired, Redgold, Fantasia, and Harflame. Nectarines are more prone to bacterial spot and brown rot diseases than are peaches.

### Soil and Site

Peach trees prefer sandy loam to loamy soils and will do reasonably well in other soils provided they are well drained. Sites that have deep topsoil (more than 2 ft) are generally better. Planting peach trees on mounds or ridges (5' or more wide, approximately 6" high after soil settling) helps if the soil is heavier or is generally wetter than optimum. Ideally, peach trees need full sunlight all day. The ideal soil pH is 6.5 to 7.0 and should be adjusted based on soil tests before planting. If possible, protect peach and nectarine trees from direct exposure to prevailing winds from the west, as wind-blown rain and sand tends to promote bacterial disease problems.

Plant fruit trees in early spring as soon as the trees arrive and the soil is dry enough to work (early April to May). If necessary, trees can be temporarily planted in a cool, shady spot for a few days before transplanting in the permanent site. The roots should not be allowed to dry out. However, try to get the trees in their permanent site promptly. Space peach and nectarine trees 10 to 18 feet from other plants.

### Planting the Tree

- 1) Trim off any excessively long root tips or tips that are half-broken off. Remove tags and wires.
- 2) Spend the time to dig a hole wide and deep enough to allow the roots to be spread out completely. Do not wind the roots to fit in the hole.
- 3) In general, plant the tree so that the top root is within an inch or two of the soil surface. Planting a tree too deep can result in disease problems.
- 4) Refill the hole, tamping the soil gently as you go to help avoid air holes. Keep sod out of the hole.
- 5) Firmly pack the soil around the roots but do not strip roots off by excessive stamping. Watering after planting helps to settle the soil around the roots. The soil around the base of the tree should be slightly higher than the surrounding area so that excess water does not collect there following rains.
- 6) Trees can be fertilized after rain has thoroughly settled the soil around the roots, about 3 weeks after planting. Apply up to 1/2 pound of 10-10-10 or other general

fertilizer by spreading it lightly in a wide diffuse band 16 to 20 inches from the tree trunk. Soils high in natural fertility may not need fertilizer in the first year.

### Pruning

Peach and nectarine trees are pruned and trained each year to develop and maintain tree size and shape. They are generally trained into an open-center system with 3 to 5 major (scaffold) limbs forming an open center (vase) shape. Peach and nectarine trees are usually pruned in mid to late April.

### Pruning at Planting

Head the central stem (leader) of a peach tree back to 30 to 36 inches from the ground at planting. Limbs arising from the central leader are scaffold limbs. Remove all scaffold limbs closer than 2 feet to the ground. Remove any upright scaffold limbs. Save no more than 4 scaffolds. Shorten scaffold limbs by 1/3. If the tree does not have at least 2 good limbs, then stub all limbs to about 1 inch in length.

### Weed Management

The first few years are most important for managing weeds in young peach plantings. A combination of hand weeding and mulch can help reduce competition from weeds. A 2 to 3 inch layer of wood chips will help to slow weeds, but also tend to help tie up nitrogen for several years following application. Wood chips that are several years old tend to work better than new chips. Landscape cloth can help suppress weeds but may make the trees somewhat more prone to winter damage and encourage voles. In general, avoid use of glyphosate (Roundup) in the vicinity of peach trees, or only with a wiper to avoid herbicide uptake by bark or foliage.

### Pruning Young, Non-Bearing Trees

In spring the year after planting, select 2 to 3 well-developed, wide-angled scaffold limbs and cut off all other limbs nearly flush (leave a 1/3 inch stub) with the trunk. Head (remove end) remaining scaffolds back slightly where growth has exceeded 30 inches.

From the second to the fourth years, remove any branches that grow straight up or straight down. Prune lightly to eliminate overlapping and damaged limbs. Remove side limbs on the area of the scaffolds close to the trunk (within 1 foot).

### Pruning Bearing Trees

Peach trees bear fruit on shoots that grew the previous year. These 1-year shoots (fruiting wood) have one to three buds at each node. The smaller, center bud is a leaf bud accompanied by up to two larger, outer flower buds. Moderately intensive pruning is needed each year to force the tree to grow new limbs.

Maintain tree height at 9 to 10 feet by heading back scaffold branches to an outward growing lateral. Remove weak and diseased branches and excessive branches. Trees with excessive growth have poorly colored fruit and leaves in the inside of the canopy due to poor sunlight penetration.

### Fertilizing

Manage peach trees to ensure production of 10 to 18 inches of new growth each season. This is accomplished through pruning and fertilization as needed. Fertilizer should be applied in the spring when or shortly before growth starts. The most important nutrients for most Michigan soils are nitrogen and potassium—the first and third number on a fertilizer bag and key components of poultry manure (typically 3-2-2). A fertilizer with the formulation 10-10-10 contains 10% by weight of nitrogen. A typical application per year to a young tree is 1/10 lb of actual nitrogen which translates to 1 lb of 10-10-10 fertilizer. Adjust rates according to tree vigor and size. A full size tree typically can use up to 0.5 lb of actual nitrogen (5 lb of 10-10-10). Phosphorus (the middle number) is generally not needed in Michigan soils. Fertilizer application should be in a wide diffuse band under the whole canopy of the tree. Avoid high concentrations of fertilizer next to the trunk because the concentrated salt in the fertilizer can cause damage.

### Peach Thinning

Peaches typically will bear a few fruit in the 2<sup>nd</sup> growing season, about ¼ of a crop in year three, and a full crop by year 5 or 6. It is generally recommended to remove all fruit in the 2<sup>nd</sup> growing season so that the tree structure develops quickly. Peach trees must have the fruit load reduced thinned in years when they bear a heavy crop to avoid limb breakage and to attain good fruit size and quality. The peach crop will naturally thin to some extent (June drop), but hand-thinning peaches is important in mid to late June to an average spacing of one peach to every 6 to 8 inches of fruiting wood. A second thinning may be needed a week or two later.

### Pest and disease control

Peach leaf curl is an intermittent disease that is easy to control with one spray, but timing is important. Apply a material labeled for the disease (Carbamate (ferbam), Bordeaux mixture\*, fixed copper\* (various products) at 75% or more leaf drop in

the fall or before 1<sup>st</sup> bud swell (no later). A very few varieties are available that have natural peach leaf curl resistance, but these varieties are generally grown in the Pacific Northwest region where the disease is particularly severe.

For brown rot, remove old fruit from the tree before growth starts in the spring, spray once or twice during bloom with an effective fungicide (Captan or Immunox or others labeled for brown rot) and several times as the fruit starts to color. Sulfur-containing compounds\* are effective for brown rot but generally require more applications, especially under rainy conditions.

Several copper and sulfur compounds are labeled for organic production. Look for an OMRI label on the package or contact your organic certifying agency to be sure it is permitted for Certified Organic NOP. Repeated applications with copper when foliage is present can result in damage to leaves.

#### Insect control

The most common insect problems are oriental fruit moth, tarnished plant bug and limb and trunk borers. A typical program for oriental fruit moth is to use an insecticide labeled for tree fruit insects starting at the end of petal fall and at 1 ½ week intervals. Chemical options are limited for organic production. Mating disruptant dispensers and sprays of the Entrust formulation of spinosad are organically acceptable; certifiers may not accept sprayable pheromones. Mating disruption is not recommended with orchards less than 3 years old and of less than approximately ½ acre because a young or smaller planting, especially those with missing trees, do not have enough foliage to hold sufficient disruptant in place to be effective.

On occasion other insects such as Japanese beetle, oblique banded leafroller, plum curculio, and marmorated stink bug may be problems on peach tree foliage and fruit. Monitoring for insect activity on leaves and fruit will indicate the need for more intensive management actions for these less common pests.

San Jose scale is a serious problem in some fruit plantings where they cause red spots on fruit and huge numbers of tiny scales on trunks and limbs. Infested limbs will have a scaly, dandruff-like covering, and wood under the bark can develop red spots from the toxins deposited by the scale. Infested trees can decline and die within a few years if not managed. Use of a dormant oil spray in early spring over two to three years is the best way to combat scale. Thorough applications are needed. There are combination disease and insect control spray materials available. Read and follow the label carefully.

Chemical options for trunk-boring insects for back yard growers are limited. White latex paint on the trunk is somewhat suppressive of trunk borers. Inspect trunk and limbs for gummy areas that may indicate the presence of a boring larvae. Use a knife or putty knife to scrape away gum and look for larvae chewing on bark and underlying tissue. If larvae are found, kill with knife point or stiff wire. Avoid damaging trunk with mower or during pruning. Maintaining tree vigor will aid in prevention of peach borer attack.

\* Indicates acceptable in organic production systems.