

Sustainable Gardening in Northern Arizona

Options for growing your own food in our harsh climate

Now that you're fully sold on growing your own food, here are the details on how to do it in Northern Arizona! This handy guide is divided by food type, so you can easily find the food that you're interested in growing.

Fruit Trees

There are many varieties of fruit trees that are hardy for Northern Arizona. Although our spring winds and late frosts can inhibit fruit production, growing fruit trees can be worthwhile; even when they don't produce; fruiting trees are very ornamental and easy to grow.

Apples – A standard Apple tree grows to about 20 feet tall and 20-25' wide. If space is limited consider dwarf trees. When choosing varieties, make sure that you consider what you will be using the fruit for as well as growing conditions to ensure that you get the right tree. For instance, if '*Golden Delicious*' and '*Red Delicious*' are nearly equal to your taste, consider differences in growing them. '*Golden Delicious*' produces fruit without a pollinizer and comes into bearing at a younger age. It keeps well, whereas '*Red Delicious*' is principally a fresh eating apple and can become mealy if not stored at the right temperature. Many varieties of Apples are self-fruitful; those that are not prefer an apple of another variety to pollinate.

Peach and Nectarine – Peaches and Nectarines look alike and have similar cultural needs. A standard-size tree grows to 25ft tall and wide, but properly pruned trees are usually kept to 10-12' high and a little wider. They start to bear crops when 3 or 4 years old and reach peak production at 8 to 12 years. Peach and Nectarine trees require good drainage, regular fertilizing, and heavier pruning than other fruit trees. Since these trees fruit on 1-year-old branches, severe annual pruning is required to renew fruiting wood and encourage fruiting throughout the tree rather than at the ends of sagging branches that can easily break.

Pears – There are two types of fruiting pears, *Asian* and *European*. *Asian* pears grow to 25-30 ft tall and about ½ as wide but can be kept to half that size with pruning. Unlike *European* pears, *Asian* pears are round in shape, with a crisp, gritty, firm texture. All pears benefit from pollination by a second variety that flowers at the same time. *European* pears are not reliable pollinizers for *Asian* pears because they typically bloom later.

Plum – The two most widely known groups of Plum are *European* and *Japanese*. *European* plums bloom later than *Japanese* plums and are better adapted to areas with late frosts. Many *European* and *Japanese* varieties are self-fruitful. Although plums tolerate many soil types, they do best in fertile, well-drained soil. For larger fruit and vigorous growth, plums must be fed heavily. Plum trees also require heavy annual pruning to ensure fruit set and healthy growth throughout the tree.

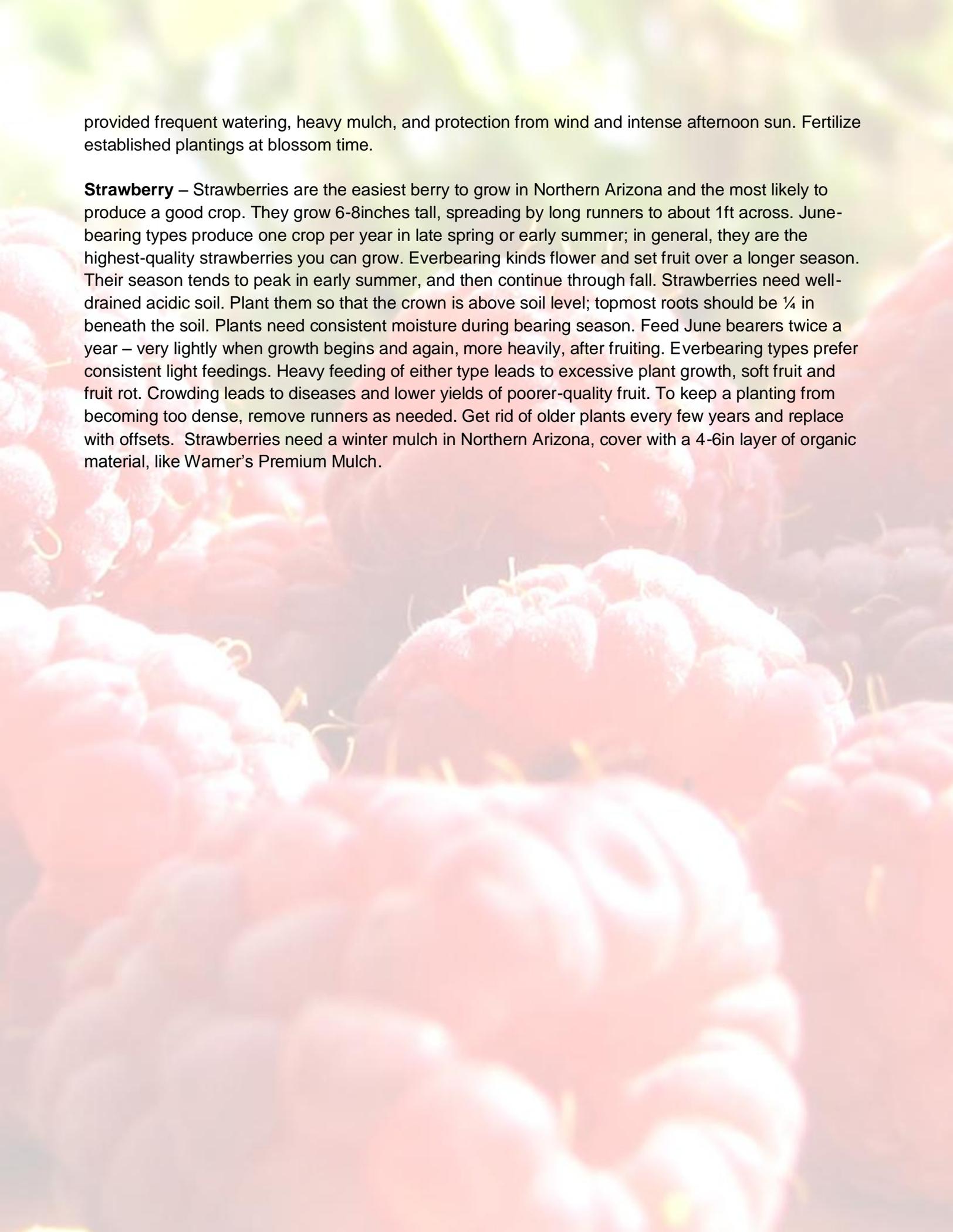
Berries

Raspberries – Raspberries grow from perennial roots that produce thorny biennial stems called canes. Generally, the canes grow to full size in the first year, and then bear fruit in their second summer. Everbearing varieties produce two crops on the same canes, one in fall of the first year, the second in summer of the next year. In all instances, the canes die after fruiting the second year. For raspberry fruit to reach perfection, plants need winter chill and a lingering springtime with slowly warming temperatures. This is great news for Northern Arizona gardeners. Good drainage is essential; if you have clay soil, consider raised beds. Rich, slightly acidic soil (ph 6 to 6.5) is ideal. Avoid planting where you have previously grown tomatoes, potatoes, peppers or eggplants, which may have tainted the soil with verticillium wilt. Plant Bare-root stock during the dormant season. Space them apart 2 ½ to 3ft. Cut back the cane that rises from the root, leaving only enough to serve as a marker. Mulch plantings to discourage weeds and keep soil moist. Water need is greatest during flowering and fruiting. Feed at bloom time with a good organic Fertilizer. After the original canes bear fruit, cut them to the ground. Then select the best 5-12 new canes and train these (they will bear next summer); cut remaining new canes to the ground. Everbearing red and yellow varieties fruit in first autumn on top third of cane, then again in second summer on lower two-thirds of cane. Cut off upper portion of cane after first harvest; cut out cane entirely after second harvest. As an alternative, you can follow the example of growers who cut everbearing canes to the ground yearly in fall after fruiting has finished (and plant is dormant). You'll sacrifice one of the annual crops but get an extended harvest from late summer into fall.

Grapes- There are several basic grape types; *European*, *American* and *Hybrid*. Unfortunately in Northern Arizona, only *American* Grapes are hardy enough. To produce good-quality fruit, you must choose a variety that suits your climate well, train it carefully and prune it regularly. Once established, grapevines grow rampantly. If all you want is a leafy cover for an arbor or patio, you need only train a strong vine up and over its support and think out entangling growth each year. But most people plant grapes for the fruit. To prepare vines for good fruit production, you will need to follow more careful pruning procedures. Grapes are produced on stems that develop from 1-year-old wood. These 1-year-old stems have smooth bark, whereas older stems have rough shaggy bark. The purpose of pruning is to limit the amount of potential fruiting wood to ensure that the plant doesn't produce too much fruit and that the fruit it does bear is of good quality. Pruning should be done during the dormant season. Grapes need deep, fertile, well-drained sandy loam soil and good air circulation.

Blueberry – Blueberries are related to Rhododendrons and Azaleas and therefore thrive under similar conditions. They need cool, moist, well-drained acid soil. Blueberries have fine roots near the soil surface; keep them moist, but don't subject them to standing water. Add a 3-4inch thick mulch to protect the roots, help conserve soil moisture and keep weeds down. Don't cultivate around plants; roots of plants are close to the surface. Use acid forming fertilizers. The two types of blueberries that we grow are Highbush and Half-high. Highbush grow upright to 6ft or more and require a winter cold. Hardy Half-high blueberries are a hybridized variety of Highbush and lowbush to create a shrub that reaches 3-4' tall.

Blackberry – Blackberry roots are perennial, but the canes are biennial; they develop and grow one year, bloom and fruit the next. Blackberries need deep, well-drained soil and regular moisture throughout the growing season. Do not locate the berries where they will be standing in water during dormancy. In high desert areas Blackberries need to have the soil amended with organic matter,



provided frequent watering, heavy mulch, and protection from wind and intense afternoon sun. Fertilize established plantings at blossom time.

Strawberry – Strawberries are the easiest berry to grow in Northern Arizona and the most likely to produce a good crop. They grow 6-8 inches tall, spreading by long runners to about 1 ft across. June-bearing types produce one crop per year in late spring or early summer; in general, they are the highest-quality strawberries you can grow. Everbearing kinds flower and set fruit over a longer season. Their season tends to peak in early summer, and then continue through fall. Strawberries need well-drained acidic soil. Plant them so that the crown is above soil level; topmost roots should be $\frac{1}{4}$ in beneath the soil. Plants need consistent moisture during bearing season. Feed June bearers twice a year – very lightly when growth begins and again, more heavily, after fruiting. Everbearing types prefer consistent light feedings. Heavy feeding of either type leads to excessive plant growth, soft fruit and fruit rot. Crowding leads to diseases and lower yields of poorer-quality fruit. To keep a planting from becoming too dense, remove runners as needed. Get rid of older plants every few years and replace with offsets. Strawberries need a winter mulch in Northern Arizona, cover with a 4-6 in layer of organic material, like Warner's Premium Mulch.