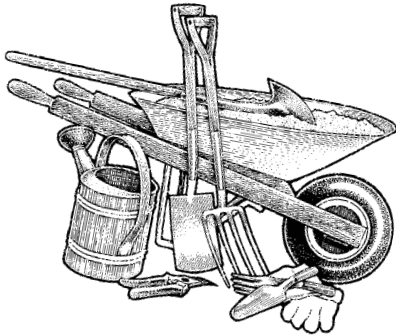


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*Helping Buncombe County Residents Survive (& Thrive!) Through Difficult Times*

## *Small Fruit for the Home Garden*

Linda Blue  
Agricultural Extension Agent



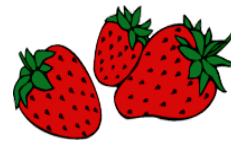
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**Grapes and berries** are well suited for growing in the home garden. Compared to fruit trees, small fruits bear fruit in much less time, require less space and tend to suffer from fewer insect and disease problems. Some small fruits can even be incorporated into the landscape.

Fruit crops will produce best when located in full sun with fertile, well-drained soil. If possible avoid planting in a low-lying area which can be a “frost pocket”, increasing the chances of spring frost. With most types it is useful to select more than one variety. Selecting varieties with different ripening dates will extend the harvest season and may improve pollination.

The most popular small fruits in western North Carolina are strawberries, blueberries, blackberries, raspberries, and grapes. Note that as of 2009, currants and gooseberries can still not be grown legally in North Carolina. Both species serve as alternate hosts for a disease that affects white pine trees.



### Strawberries

Strawberries are adaptable to most garden soils, but grow best with well drained soil with a pH of 6.0 to 6.5. Incorporate organic material and form raised beds for best results. Select a site that has not previously been planted with strawberries, potatoes, tomatoes, peppers or eggplants within five years to reduce the chances of verticillium wilt, a fungal disease. Also try to avoid planting immediately after sod because grubs can feed on strawberry roots.

**Varieties** – The most reliable strawberry varieties are “Junebearers”, which actually begin ripening in May. Other types are “everbearing” and “day-neutral”, which produce smaller crops in both spring and fall. It is not necessary to plant more than one variety for cross-pollination, but cross-pollination can result in better production.

**Planting** – Strawberries are usually planted in March or April. Plant as soon as your plants arrive. Be sure to set the plants

*Strawberry planting continued:*

In the ground at the correct depth, at the middle of the crown, and to spread out the roots in the planting hole. Space plants 18 to 24 inches apart in the row, with rows about 3 feet apart. Water well.

The first spring remove all flower buds from Junebearing types so the plant's energy will go into producing runners to fill in the bed. (For everbearing types, remove flower buds until July.) During the summer allow runners to grow until plant density is approximately four to six plants per square foot. After that, remove excess runners if needed.

**Fertilization** – New plants can be fertilized one month after planting. Then fertilize in September when the plants are forming flower buds. Broadcast fertilizer when foliage is dry and brush it off the leaves. Do not fertilize in spring as it can result in soft berries and more disease problems.

**Renovation** – A strawberry bed can produce for 3 to 4 years before plants become weak and need to be replaced. If the plants are healthy, renovate immediately after harvest. Mow off leaves with a mower or string trimmer, being careful not to damage the crowns. Reduce the row width with a rototiller or hoe to a strip 12 to 18 inches wide. Thin plants to 6 inches apart. Fertilize and water

For more information see: **Strawberries in the Home Garden at:**

<http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-8205.pdf>.

## **Blueberries**

Blueberries are easy to grow if attention is paid to good soil preparation and correct planting, although blueberries will produce fairly well in partial shade, they will produce the most berries in full sun. The



type of blueberry that grows best in the mountains is highbush. These require an especially low soil pH of 4.2 to 4.8 so soil testing before planting is particularly important.

**Varieties** – Highbush blueberries do not require cross-pollination, but may produce better with a second variety.

**Planting** - Do a soil test and correct pH and phosphate levels if needed. To lower pH one point (from 5.5 to 4.5) apply 2 ½ cups of wettable sulfur (90% sulfur) to a 100 square foot area (10X10) and work in well. This should be done one year before planting. Improve drainage in clay soil by incorporating pine bark soil conditioner.

Bare root plants should be planted in late winter or early spring. Container grown plants can be planted in spring or fall. Space plants about 5 feet apart, being sure to loosen or slice the root ball and plant no deeper than the top of the ball. Apply 3 inches of pine bark or pine needle mulch and keep well watered.

Here's the hard part. All flowers should be removed the first 2 years to allow the plants to put all their energy into root and plant growth, not berry production. Plants should be 4 feet tall before bearing fruit.

**Maintenance** – Blueberry roots are easily damaged by too much fertilizer. The first year apply about a tablespoon of azalea fertilizer after the leaves have come out. Repeat at 6 week intervals until July. Increase the fertilizer amount in successive years according to the size of the plant.

Blueberry bushes are not very drought tolerant, so monitor soil moisture during the summer and irrigate if needed. Older plants should be pruned to maintain size and to remove some old canes or any diseased or damaged wood. For more information see: **Growing Blueberries in the Home Garden at:** <http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-8207.pdf>.

Or [www.ces.ncsu.edu/depts/hort/hil/hil-201-b.html](http://www.ces.ncsu.edu/depts/hort/hil/hil-201-b.html)

## Small fruit for the Home Garden

### **Blackberries and Raspberries (Brambles)**

Blackberries, raspberries, and their relatives are fairly easy to grow. Varieties are classified as trailing, semitrailing or erect. Trailing and semitrailing types need to be supported with a trellis system

Brambles are tolerant of most soil types, growing best with a pH of 5.8 – 6.5. Try to avoid sites where strawberries, potatoes, tomatoes, peppers or eggplants have been grown within five years to reduce the chances of verticillium wilt.

**Planting** – Plant dormant plants in early spring. Spread roots out in the hole and set the crown slightly below the soil level. Space plants 3 feet apart for erect types and 6 to 8 feet apart for trailing and semitrailing types. Keep watered the first summer.

**Maintenance** – Fertilize in early spring when new growth starts and again in July.

Fruit is born on 2 year old canes. In other words, a cane grows from the crown one year, and bears fruit the second year, then dies at the end of that second summer. During the summer, when new shoots reach 30 to 36 inches in height, cut off the tips to encourage branching. After harvest prune out the spent canes.

For more information see:

**Raspberries in the Home garden**

at:

<http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-8204.pdf>;

**Blackberries in the Home Garden** at:

<http://www.ces.ncsu.edu/depts/hort/hil/pdf/blackberries.pdf> ;

**Pruning and Training Thornless Blackberries** at:

<http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-8206.pdf>.



### **Grapes**

The best type of grape for growing in western North Carolina is the American bunch grape. Muscadines are not reliably cold hardy and vinifera (wine grapes) are very disease prone and subject to cold injury. Bunch grapes are self-fertile, so may be grown individually. They will grow in most soil types as long as the pH is between 5.5 and 6.5.

**Planting** – Grape vines are planted in early spring. Construct a sturdy trellis before planting. Space plants 10 feet apart. Plant at original depth and spread roots out well in the hole.



**Maintenance - After**

planting cut the vine to one stem and cut this back to 2 to 3 buds. When the new

shoots are 10 inches long, select the most vigorous and remove the others. Tie it to a training stake during the first season to develop a strong straight trunk.

Grape vines must be pruned and trained every year to remain productive. See additional references for training systems.

After planting apply ½ cup of 10-10-10 fertilizer around each vine after new growth starts. In following years apply fertilizer in April and repeat once a month until July.

For successful grape production, vines must be sprayed regularly to prevent fungus diseases.

For more information see:

**Bunch Grapes in the Home Garden** at:

<http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-8202.pdf>

**Insect and Disease Control of Fruits** at:

<http://ipm.ncsu.edu/agchem/7-toc.pdf>

**Bearing age, average yield and life span of small fruits.**

<b>Fruit</b>	<b>Type</b>	<b>Bearing Age (years)</b>	<b>Avg. Annual lb/plant</b>	<b>Number plants 4 people</b>	<b>Life Expectancy (yrs)</b>
Blueberry	Highbush	3	8	6	20 - 30
Blackberry	Erect	2	4	6	5 - 12
	Semitrailing	2	20	2	5 - 20
Raspberry	Red, Black	2	2 - 4	6	5 - 10
Grape	Bunch	3	15	4	15 - 20
Strawberry	Junebearing	2	½	50	3 - 4
	Everbearing	1	1/3	50	2 - 3

For more information see: [www.ncstate-plants.net](http://www.ncstate-plants.net)

April 2009