Something to Grow On

Why Fruit Trees Fail to Bear

One of the most frustrating occurrences for a home gardener is to pamper a fruit tree for years, provide all it needs to grow and flourish and to never have it reward you with sun-ripened, sweet juicy fruit. Although there are no stock answers, several of the most common reasons for the “fail to bear” phenomenon are discussed below. When a tree produces viable blooms, it is capable of producing fruit if pollination requirements are met.

Fruit Tree Fails to Bloom
- Tree too young. Most trees bear by the third year.
- Chilling hour requirements have not been met.

Sickly Tree
- Water stress
- Disease
- Insect damage
- Poor fertility

Tree Blooms, but does not bear fruit
- Cold temperatures (below 32 degrees F) occurred during bloom and damaged flower bud or immature fruit. Fruit damaged by cold temperatures will begin falling off about three weeks after freeze occurred.

Pollination
- Pollination process not complete needs another variety for cross-pollination.
- Varieties planted may not be compatible for cross-pollination.

Excessive Vegetative Growth
- Over fertilization channels nutrients to leaves causing young fruit to abort.

What is that “Purple Flower”?

Everybody always wants to know what the little trumpet shaped flower is that comes up in their fescue lawns. The name of this pesky little weed is “Henbit”. We normally start seeing it bloom in late winter or early spring. However, this year due to the unusual weather I have seen some in lawns that are already starting to bloom. For best results lawn sprays can be used when weeds are small and preferably before flower blooms. On a normal year it would probably be around Valentines Day. There are several sprays on the market that will control “henbit”. I would make sure that what every formulation I purchased consisted of 2-4D, Dicamba, MCCP, and Carfentrazone. One formulation called Speed Zone has worked well in my trials. By using a product that has 2-4D, Dicamba, MCCP and Carfentrazone one can also control weeds other than Henbit. Good control can also be achieved on wild garlic, chickweed, white clover, and dandelions just to name a few.
Fruit Tree Growing Guide

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Spacing</th>
<th>Ideal Soil pH</th>
<th>Moisture Requirement</th>
<th>Pruning Requirement</th>
<th>Spraying Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>20’ X 25’</td>
<td>6.0</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Blueberry</td>
<td>6’ X 10’</td>
<td>4.5-5.5</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Blackberry</td>
<td>2’ X 6’</td>
<td>6.0</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Fig</td>
<td>10’ X 10’</td>
<td>6.0</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Muscadine</td>
<td>10’ X 15’</td>
<td>6.0</td>
<td>Moderate</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Peach</td>
<td>20’ X 25’</td>
<td>6.0-6.5</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Pear</td>
<td>20’ X 25’</td>
<td>6.0</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Persimmon</td>
<td>15’ X 15’</td>
<td>6.0-7.0</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Plum</td>
<td>20’ X 20’</td>
<td>6.0</td>
<td>Moderate</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

The What and When of Fruit Tree Fertilization

The questions arise when and how much fertilizer should be applied to fruit trees. A soil analysis is highly recommended for determining an accurate composition of the soil nutrients. If a soil analysis is not available, some general guidelines can be followed.

Fertilization should not begin for at least 3 months after planting to allow time for the soil encircling the plant to settle and to allow the plant to establish some roots in the surrounding soil. A complete fertilizer such as 10-10-10 is usually applied in the early spring just prior to the plant leafing out. The recommendations listed are general, in lieu of a soil analysis.

**Pecan**
- Apply February or early March
- For nonbearing trees apply 1 lb of 10-10-10 fertilizer per year of tree age (do not exceed 25 lbs per tree)
- For bearing trees apply 4 lbs of 10-10-10 per inch of trunk diameter
- Broadcast the fertilizer in a broad band around the drip line of the tree
- Pecans require adequate amounts of zinc so foliar applications of zinc sulfate may be needed after first growth

**Pear/Persimmon**
- ½ lb per plant per year of growth. Up to 10 lbs. Per plant. Apply in early March.

**Apple/Fig/Plum/Peach**
- 1<sup>st</sup> year – ½ lb per plant
- After 1<sup>st</sup> year- 1 lb per plant per year of growth up to a maximum of 10 lbs per plant
- Apply at bud swell (February – early March).

**Blackberry**
- 1<sup>st</sup> year – 4 ounces per plant
- After 1<sup>st</sup> year – 8 ounces per plant
- Apply at bud swell (March). Ammonium Nitrate (6 ounces/plant) applied in early July will increase plant vigor and fruit set.

**Grape/Muscadine**
- 1<sup>st</sup> year – ¼ lb per plant
- 2<sup>nd</sup> year – ½ lb per plant
- 3<sup>rd</sup> year – 1 lb per plant
- After 3<sup>rd</sup> year – 2 lbs per plant
- Apply complete fertilizer when vines start to leaf (March-April). Ammonium Nitrate (1/2 lb per plant) applied in mid June will increase vine vigor.

**Blueberry**
- 2 ounces per plant per year of age to a maximum of 8 ounces per plant per year.
- Use azalea or camellia fertilizer for best results
- Apply ½ the recommended amount in March and ½ in June.
- Fertilizer should be spread uniformly under the tree or bush form the drip line back to trunk.
- Avoid fertilization after June, as late season growth is more susceptible to winter damage.
All roses need some type of pruning. If roses are not pruned for a number of years, plants deteriorate in appearance, often develop more than the usual disease and insect problems, and the flowers become smaller and smaller.

Hybrid Tea, Grandiflora, Floribunda roses require annual pruning in the spring, here in Stanly County a good time would be when forsythia start to bloom. If rosebushes are pruned too early, injury from repeated frost may make a second pruning necessary.

The only tools necessary are sharp hand pruners and gloves. If the rose collection is large, a small saw and loppers will also help. Loppers are used to cut out large dead canes.

Remove branches that are dead, damaged, diseased, thin, weak, growing inward, and branches that cross or interfere with other branches. Proper pruning encourages new growth from the base making the plant healthy and attractive and resulting in large blossoms. Cut at least one inch below damaged areas. Remove all weak shoots. If two branches rub or are close enough that they will do so soon, then remove one. On old, heavy bushes cut out one or two of the oldest canes each year.

Cut back the remaining canes. The height to which a rose should be cut will vary depending upon the normal habit of the particular cultivar. The average pruning height for Floribundas and Hybrid Teas is between 12 and 18 inches, but taller growing Hybrids and Grandifloras may be cut at 2 feet. Make cuts at 45-degree angles above a strong outer bud. Aim the cut upward from the inner side of the bush to push growth outward and promote healthy shoots and quality flowers.

Other types of roses have special pruning needs:

A rose standard or tree rose is a Hybrid Tea, Grandiflora, or Floribunda budded at the top of a tall trunk. Prune tree roses as you do Hybrid Teas, cutting the branches to within six to 10 inches of the base of the crown in order to encourage rounded, compact, vigorous new growth.

Miniature roses are six to 12 inches high, with tiny blooms and foliage. Miniature roses do not need special pruning. Just cut out dead growth and remove the hips.

Old-fashioned rambler roses have clusters of flowers, each usually less than 2 inches across. They often produce canes 10-15 feet long in one season. Ramblers produce best on year old wood, so that this year’s choice blooms come on last year’s growth. Prune immediately after flowering. Remove some of the large, old canes. Tie new canes to a support for the next year.

Large-flowering climbing roses have flowers more than 2 inches across, borne on wood that is 2 or more years old. Canes are larger and sturdier than those of Ramblers. Many flower just once in June, but some, called ever-blooming climbers, flower more or less continuously. This group should be pruned in autumn, any time before cold weather sets in. First cut out dead and diseased canes. After this, remove 1 or 2 of the oldest canes each season to make room for new canes. The laterals, or side shoots, are shortened 3 to 6 inches after flowering. If the plant is strong, keep 5 to 8 main canes, which should be tied to the trellis, fence, wall, or other support. If it is not strong, leave fewer canes.

Shannon L. Braswell
Extension Agent
Agriculture - Horticulture

Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A & T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical.
What to Do to Control Crabgrass?

Many folks are wondering what to do to control crabgrass in their fescue lawns. There are several pre-emergent herbicides on the market that work well. However, most people don’t have good luck with these products because they are not applying them at the correct times. Most homeowners put out crabgrass preventer in April or May. This is too late for adequate control. Pre-emergent herbicides work by keeping crabgrass seeds from germinating. If one waits till after seeds have already germinated then the pre-emergent control does little to help. A good general rule of thumb is to put out your crabgrass preventer when the Forsythia starts to bloom. This will normally be the middle of February. I would recommend a pre-emergent with the active ingredient “dithiopyr”. “Dithiopyr” has shown pleasing results in the past. Dimension is the trade name for this product. This product is easily accessible for homeowners.

Inside This Issue

- Why Fruit Trees Fail to Bear
- What is that “Purple Flower”?
- Fruit Tree Growing Guide
- The What and When of Fertilization
- Pruning Roses