

## *Plant Health Care Recommendations for Apple*

The domestic apple (*Malus x domestica*) was originally bred thousands of years ago from small fruited wild apples in Asia. Apples are the most popular fruit in America and can be grown in most regions. Apple trees are available in a range of sizes and in hundreds of varieties. Apples are available that will grow in container and produce fruit on the balcony of a city building.

Apple trees have a double value in the landscape. They produce both lovely flowers and attractive fruit. They require 3-5 years after planting to begin bearing fruit, but many will bloom the first spring after planting. If flowers are the only reason for planting an apple, then crabapples are a better choice because they are less maintenance and more prolific bloomers.

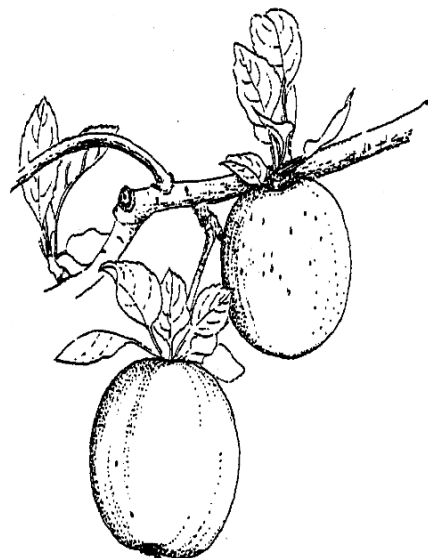
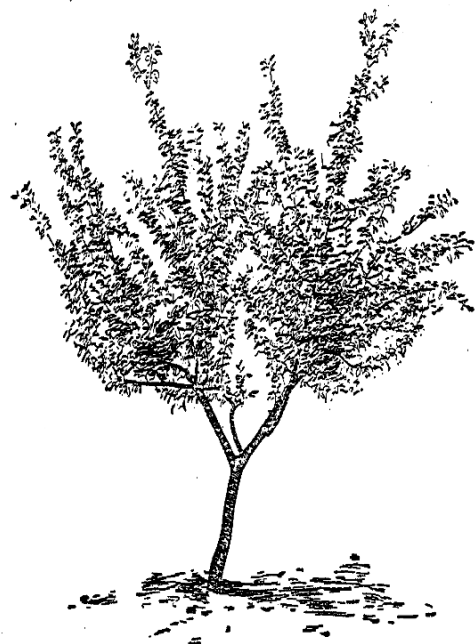
The size of the mature apple depends on the rootstock onto which it is grafted. There are four basic sizes:

**Miniature:** Grows only 6-8 feet tall. Often used in large pots for patios and decks.

**Dwarf:** Grows 8-10 feet tall. Size makes pruning, picking and spraying easier. These tree produce fruit at a younger age than standard trees. However, trees are less drought tolerant and may fall over without staking.

**Semi-Dwarf:** Grows 12-15 feet tall. Best choice for most homeowners.

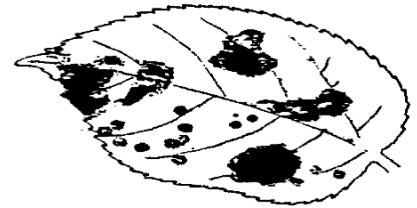
**Standard:** Grows 18-25 feet tall. Produces the most long-lived, hardiest trees for properties with ample space.



Apples will grow in most types of soil and will generally require annual fertilization. Apples prefer full sun, but will produce fruit with only 6 hours of sun a day. Apples, particularly miniature and dwarf varieties will need to be watered during dry weather. Mulching to a depth of 4" around each tree is recommended. Apples should be pruned every year, particularly when they are young. Specialized pruning techniques are necessary to optimize fruit production and reduce disease.

A wide range of pests attack all parts of apple trees. The most serious pests of landscape apples are the following:

1. Scab, *Venturia inaequalis*: Fungus disease of foliage and fruit. Unless resistant varieties (Liberty, Freedom, MacFree, etc.) are planted, at least three fungicidal treatments are needed in areas with rainy springs.



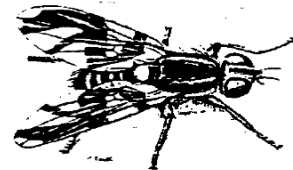
2. Codling Moth, *Cydia pomonella*: Insect attacking the fruit of apple and many other fruits. Difficult to control because moths are active from spring until fall.



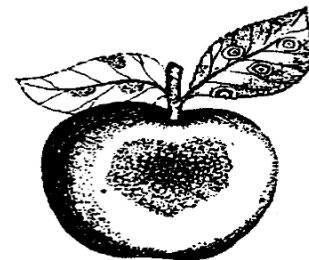
3. Plum curculio, *Conotrachelus nenuphar*: Small beetle attacking the fruit.



4. Apple maggot, *Rhagoletis pomonella*: Fly attacking the fruit. Red, sticky traps hung in the trees help reduce damage.



5. Cedar apple rust, *Gymnosporangium juniperi virginianae*: Fungus disease of foliage and fruit.



6. Fireblight, *Erwinia amylovora*: Bacterial disease which kills young branches, resulting in a characteristic "shepherd's crook".



## Recommended Monitoring for Apples

Timing	Treatment
Winter	Inspect and treat for deer damage. Corrective prune and remove plants exhibit decline, sample roots or root crown for <i>Phytophthora</i>
Late Winter	Inspect and treat* for deer damage. Apply oil to scales, mites, aphids and other pests. Apply fireblight treatment to trees with a history of this disease. Apply fertilizers and soil treatments to adjust pH as needed based on soil test results.
Early Spring	Apply fruit tree mix to control insects and diseases. Inspect and treat* for tent caterpillars, mites and borers.
Mid Spring	Apply fruit tree mix to control insects and diseases. Inspect and treat* for tent caterpillars, mites and borers. Apply fireblight treatment to trees with a history of this disease. Place one codling moth trap on each property. Place two apple maggot traps per tree.
Late Spring	Apply fruit tree mix to control insects and diseases. Inspect and treat* for mites, borers and scale. Begin to thin fruit where necessary.
Early Summer	Apply fruit tree mix to control insects and diseases. Inspect and treat* for mites, borers and scale. Inspect irrigation and soil moisture levels to reduce moisture stress and prevent root disease. Thin fruit where necessary.
Mid Summer	Apply fruit tree mix to control insects and diseases. Inspect and treat* for mites, borers and scale. Inspect irrigation and soil moisture levels to reduce moisture stress and prevent root disease. Remove any fallen fruit.
Late Summer	Apply fruit tree mix to control insects and diseases. Inspect and treat* for mites, borers and scale. Inspect irrigation and soil moisture levels to reduce moisture stress and prevent root disease. Remove any fallen fruit.
Early Fall	Inspect and treat for deer damage. Remove any fallen fruit. Inspect irrigation and soil moisture levels to reduce moisture stress and prevent root disease.
Late Fall	Inspect and treat for deer damage. Prune out branches damaged by fireblight or the weight of fruit. Ensure adequate soil moisture levels prior to onset of winter to minimize injury. Remove any mulch from stems to reduce risk of disease and rodent injury.

\* Apply treatments only when inspection has established that they are warranted.