

## Plants That Need Acid Soil, and How to Help Them Succeed in the Landscape

*A number of plants need acid soil and high organic matter content to survive and thrive in the landscape. This fact sheet will outline strategies in the planting and care of acid-loving plants in Central Ohio's heavy clay and alkaline soils.*

### Acid –loving tree and shrub species:

- Most broadleaved evergreens, such as: Rhododendron, Azalea, Holly, Pieris, Inkberry, Mountain Laurel, and Leucothoe.
- Other large evergreen trees, such as White Pine, Serbian Spruce, Hemlock, Canaan Fir and Southern Magnolia.
- Deciduous trees and shrubs, such as: Flowering Dogwood, Sweetbay Magnolia, Pin Oak, Sourwood, Witch hazel, and Blueberry.

### Soils:

Central Ohio soils are typically thick and heavy clay soils that hold too much water when wet and have high proportions of lime content in them, which makes them alkaline, or high pH. In addition, much new home construction leaves nothing more than sterile fill dirt to plant in when the home is 'done'. As such, these alkaline soils do not provide the proper balance of nutrients and minerals for acid-loving plants. The heavy clay causes soils to be poorly drained and low in oxygen for plant roots. This causes plants to suffer and it shows by a lack of new growth, stunted leaves, yellow color, and dieback.

Such soil conditions must be corrected by lowering the pH (acidifying the soil) with sulfur and acidifying organic amendments, and improving the drainage of the planting site.

### How to Improve the Soil For Acid-Loving Plants.

Acid-loving plants, such as Rhododendrons and Azaleas, require acid soils. Proper acidity can be achieved by adding peat moss and soil sulfur. The soil must drain well. If the soil is always sticky and wet, the roots will rot and die.

#### **Amending soil for Acid Conditions:**

- ◆ Dig a hole 12" wider than the plant root ball and 15" deep.
- ◆ Create the following soil mix to put back into the planting hole:
  - 1/2 Native Soil**
  - 1/2 Peat Moss**
  - 2 heaping handfuls of shredded pine bark**
  - 1 1/2 cups Sulphur**
  - 1/2 cup Alfalfa or Cottonseed meal.**
- ◆ For whole planting bed acidifying, spread 2 lbs. of sulfur per 100 sq. ft. Mulch with pine bark and spread composted peat moss around plants each spring.

## Acid-Loving Plant Care, cont'd

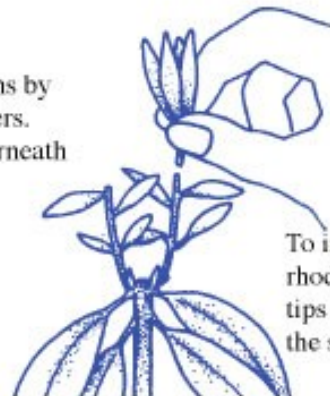
### Other Tips for Planting Success:

- ◆ Fertilize with an acid fertilizer each spring with a product such as Hollytone™ or Cottonseed Meal.
- ◆ The addition of Alfalfa Meal at planting time will provide valuable growth hormones and nutrients to the new plant.
- ◆ Provide ample even moisture during the growing season.
- ◆ Protect from winter winds and early-morning winter sun. Consider the use of anti-desiccant sprays in late November to protect broadleaved evergreens from winter-kill.
- ◆ Most broadleaved evergreens thrive in part sun conditions. Avoid hot, dry, or exposed sites.
- ◆ Raised beds built on top of native soil to a depth of 12-18" and held in place by timbers or stones are good for large plantings or new bed situations.
- ◆ For better flower set, pinch old flower stems to help flower bud set for next year. Leaf buds can also be pinched in mid-April to promote a more compact plant and slow growth.
- ◆ Consider a soil test in the fall before planting. This will give a true measure of the make up of the soil, and measures needed to make it suitable for the planting of broadleaved evergreens.
- ◆ There are several books and many online resources for further information.

# Acid-loving Plants



Deadhead rhododendrons by breaking off spent flowers. Be careful of buds underneath the flower.



To increase blooming in rhododendrons pinch tips of new growth in the spring