

Native Knowledge!

Sister Mary Grace Burns Arboretum of Georgian Court University, a member of the Garden State Gardens Consortium

The Sister Mary Grace Burns Arboretum of Georgian Court University has four historic gardens dating from the late 1800s/early 1900s. Woody plants native to New Jersey have grown to play an important role in the landscape features of these gardens. In this three page handout, we will first explain how to grow an oak tree from an acorn from a native oak tree. Then, we explain the roles of the native woody plants in the gardens. Last, we state some of the ways animals use these plants. In this handout, the plants native to New Jersey appear in bold underlined font.

How to grow your own oak tree from an acorn from our historic gardens:

*If you pass through the Italian or Japanese Gardens in September and October, you can collect acorns to grow your own oak tree. Select an acorn that has fallen to the ground from a **chestnut, white or post oak** tree (almost all the acorns in one of our historic gardens will be one of these). Inspect it to make sure the exterior is intact, undamaged and free of any the small pin-prick sized holes that are made by acorn weevils. Take the acorn home and put it in a container that is at least 4 (preferably 6 or more) inches deep, fill the container with potting soil that is moist but not wet, and put the acorn into the soil sideways such that it is just barely covered by soil. Keep the container in a cool place such as a refrigerator, or a garage. Do not put a lid on the container – it is important that air be able to circulate around the acorn. In about April, the acorn should have a well-developed root. Put the acorn on a sunny, warm windowsill. Water it to keep it from drying out. Within a few weeks, a shoot should appear and develop leaves. When all danger of frost has passed, plant the tree outside, taking care not to damage the root. It will probably not grow more than 4-8 inches in each of its first years of life, so it will need to be protected from rodents and lawn mowers.*

Italian Gardens

Begin at the flagpole on the south side of the Casino. You are at the top of a hill. Look down the hill and far in the distance, at the bottom of the hill, you will see a large sculpture, which is the Apollo Fountain. In front of you are the Italian Gardens. Walk down the wide stone path toward the Eagle sculpture in the middle of the garden. After you pass the twin pergolas, one on either side, you will pass a number of tall **pitch pine** and **shortleaf pine** trees. These are among the tallest trees in the Italian Gardens. They add vertical structure to the gardens and complement the other evergreens in the gardens, which are primarily moss cypress trees native to Asia. Their scaly bark and their 2-5 inch needles provide a contrast to the smoother bark and the small scale-like leaves of the moss cypress trees. Before you reach the Eagle sculpture, on your right are tall **chestnut oak, white oak** and **post oak** trees (one of each). Unlike in a forest, where these trees would not be able to spread out because of competition from nearby trees, in this garden they have little spatial competition and consequently one can

appreciate the grandeur of their natural shape. The **post oak** in particular, which is along the road on the right, has a perfectly symmetrical, rounded shape. It provides a visual screen from the residence hall on the opposite side of the road and helps enclose the western side of the gardens. On your left, at the southern edge of the large grove of moss cypress trees, a deciduous, glossy-leaved **black gum** tree offers a remarkable display of red color in early to mid-October, making it the focal point of the entire garden. Mixed in with the Asian moss cypress trees throughout the garden are several **eastern redcedar** and **arborvitae** trees, whose regular, conical, vertical shape offers the visitor visual relief from the repetitive irregular, scraggly, rougher appearance of the moss cypress trees.

Japanese Garden

The Japanese Garden is the only 1 of the 4 gardens that is not part of the Bruce Price design of the Georgian Court estate. After you pass the Eagle sculpture in the Italian Gardens, the garden is on your right, across the road from the Italian Gardens, at the wooden post marked station E. Designed by Takeo Shiota, the Japanese tea garden is accessed via a metal gate added in the mid 2000s to keep out deer. When you pass through the gate and then approach the garden by taking the stone path on your right, you will pass a large **white oak** tree before you reach the first bridge. It, and another **white oak** just outside the wooden fence enclosing the tea house, are the largest trees in the garden and provide the shade needed by the many rhododendrons. They also ensure that the light reaching the garden is speckled and diffuse, help hide the garden from the residence hall on the right, and help create the illusion that the garden is secluded and nestled in a forest, accessible by a journey along the stone path and the bridge crossing the dry stone bed. After you pass through the wooden doorway in the fence, the tea house is on your right. Most of the woody plants in this area are Asian cherries, umbrella pines, yews, and maples. However, after you cross the stone bridge and reach some yucca plants, on your left you will pass a tall **shortleaf pine** whose irregular, asymmetrical, jagged branches fit in well with the asymmetry of the manmade features of the garden. **Eastern redcedars** in the southwest corner of the garden help hide the garden from the buildings beyond it and shade it from the strong southwestern sun.

Sunken Garden

When you leave the Japanese Garden, turn right and take the paved road toward the Apollo Fountain. The road that goes to the left of the fountain passes by the Sunken Garden. Enter the Sunken Garden by walking down the marble steps that are set between the pair of marble lions. Most of the trees on this level of the garden are moss cypress trees from Asia. If you descend one of the twin staircases to reach water level, you will note that evergreens line both sides of the lagoon, secluding the garden from its surroundings and providing shade. Most of these trees are also moss cypress trees. However, a few conically shaped **arborvitae** trees blend in with the other evergreens.

One **American holly** tree on each side of the lagoon offers some diversity of foliage, bark and shape.

Formal Garden

After you ascend the lower and upper sets of stairs and pass through the lions again on your way out of the Formal Garden, turn right and go down the road a short distance. In front of you is an ellipse that encloses the Formal Garden. The Formal Garden itself is bordered by a boxwood hedge. On the four corners of the garden are **American holly** trees. Because they are evergreen, they provide some yearround shade to the garden, colorful berries in the winter when the garden itself has little color, and a transition to the tall trees on the perimeter of the garden. If you walk around the road that passes in front of the mansion, on your left is a **flowering dogwood** tree. It contributes showy flowers in late April or early May, and bright red fruit and rich fall leaf color that immediately attract the attention of visitors traveling to the mansion. Closer to the road are a few **mountain laurels**. These beautiful evergreen shrubs help give a woody feel to the approach to the mansion, and in May their bunches of bright flowers, along with those of azaleas and rhododendrons, provide a spectacular display of color. Continuing further along the road forming the ellipse, the visitor passes other **American holly** trees, some **white pines** that give partial shade to the garden, and eventually additional **mountain laurels** and **flowering dogwoods** (on the northern side of the ellipse). Also on the northern side, opposite Raymond Hall, are two large **white ash** trees. These are the largest trees in the ellipse and mostly help shade the garden, but in autumn their leaves bathe the north side of the ellipse in yellow.

What major forms of wildlife use the native plants in our historic gardens?

- **Pitch pine (Pinus rigida), shortleaf pine (Pinus echinata) and white pine (Pinus strobus)**: seeds eaten by squirrels; squirrels and birds nest in the branches and trunk; woodpeckers eat the insects in the bark; hawks eat the squirrels and perch on the branches.
- **White oak (Quercus alba), chestnut oak (Quercus montana) and post oak (Quercus stellata)**: acorns eaten by squirrels, deer, mice, other vertebrates; squirrels and birds nest in the branches and trunk; woodpeckers eat the insects in the bark; hawks eat the squirrels and perch on the branches.
- **Black gum (Nyssa sylvatica)**: flowers pollinated by insects, fruit eaten by birds.
- **American holly (Ilex opaca)**: flowers pollinated by insects, berries eaten by birds.
- **Flowering dogwood (Cornus florida)**: flowers pollinated by insects, fruit eaten by birds.
- **Eastern redcedar (Juniperus virginiana)**: fruit eaten by birds.
- **Mountain laurel (Kalmia latifolia)**: flowers pollinated by insects.
- **White ash (Fraxinus americana)**: squirrels and birds nest in the branches and trunks.