

A Bonsai Close-up on *Zelkova serrata*

Gray Barked Elm

By Pauline Muth copyright 1997

The Zelkova has small, single toothed leaves placed alternately on fine branches. The leaves are hairy. The ramification of twigs is quicker to develop than the Chinese Elm because it develops side branches at shorter internodes. The bark has a wonderful soft gray color. It develops wonderful nebari over time.

The head tends to be rounded when grown freely. The branches often form dense intertwining mats. Care must be taken to trim frequently to avoid this becoming a problem. When **trimming branches**, take care to select the cutting point so that the new branch will develop in the direction planned. Remove buds or young branches that point upwards or downwards early in spring. When grown in the classic broom style, careful trimming is required to prevent a dense matting of the crown.

It will take a **hard pruning** early in the spring before the buds swell. Hard pruning done later in the season can result in dieback. If this late pruning is necessary, be sure to leave a stub that can be removed during the next spring. Fall produces a natural leaf drop as the temperatures decline. The tree should be brought indoors after all leaves have fallen. The tree will then bud out in January.

Specimens grown from seed or cuttings often produce straight trunks well suited for group or forest plantings. **To develop good taper** for individual specimens, the tree must be kept cut back severely as it grows.

Outdoors in the growing season, leaves can dry out easily so provide a lightly shaded growing area. Keep the bonsai well watered. Watch for heat and dryness stress. Stress damage will affect the tree for the remainder of the summer. It will recuperate the next spring. Take care to give developing trees adequate water during the summer months. Older specimens should be **kept evenly moist** but they will not require the extra water younger trees need. The twigs of the tree are easily killed by winter frost so winter protection is needed. Cool greenhouse storage is ideal.

Fertilize with a weak water-soluble solution throughout the growing season. Add a dose of trace elements in the early spring. In the fall, fertilize with Potash to stabilize the roots for the winter. Fall is also a good time to apply phosphate but avoid nitrogen compounds, as they will provide weak growth that will die in winter and weaken your tree. Zelkova appreciate a symbiotic fungus in the soil. Spores are available commercially. Periodic iron treatments will maintain a strong green color,

Young trees need **repotting** every other year. Mature tree should be checked and repotted only when needed. All repotting must be done in early spring before the leaves bud out. Use an open soil that will provide strong root growth. Open soil mixes allow good drainage, a reserve of oxygen, and can be kept evenly damp.

Comments and questions to
Pauline@pfmbonsai.com