

# HIGHWAY SHADE TREE MAINTENANCE

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## ABRIDGMENT

•HIGHWAYS that do not provide for the conservation and maintenance of trees help to make our country look like a concrete and asphalt wasteland. Yet, trees provide practical values beyond aesthetic considerations. They help eliminate highway hypnosis and driver tension, two major causes of accidents. Trees act as windbreaks for controlling hazardous crosswinds and snowdrifts. They also control soil erosion, preventing stream sedimentation and water pollution.

Although the benefits of trees along the highway are well recognized, federal and state governments have done little to maintain trees. Some states are investing as much as \$500,000 a year for planting, but nothing for maintenance. This is being done in spite of a government-sponsored survey that conclusively shows that trees must be maintained if they are to survive the highway environment.

When instituting a planting and maintenance program, consideration must be given to the existing foliage as well as the types of trees to be planted.

Existing trees along new highways often have the soil compacted around the roots or the roots damaged during construction. Others will be killed by the polluted water running off the highway, or will suffer from lack of water due to the pitch of the roadway. When these conditions exist, the trees should be removed and new trees planted in places where survival is certain.

The following types of trees are able to endure highway conditions: Norway maple, sycamore, scarlet oak, honeylocust, eucalyptus, and eugenia. Evergreens are recommended in localities where they grow well. Shad bush, tung-oil, and tupelo have done well along both the east and west coasts.

After healthy, existing trees have been selected and new trees planted, an adequate maintenance program must be initiated if these trees are to endure and flourish. Regular feeding programs must be instituted to provide the trees with the nutrients they need to survive. Trees should be sprayed when infection or infestation occurs or is imminent. Pruning must be done regularly. Also, consideration must be given to the types of chemicals applied to roadways for snow and ice removal because toxic materials can damage and kill roadside trees.

## RECOMMENDATIONS

A comprehensive highway tree census and continuing tree inventory should be initiated. The census should be conducted every 10 years to determine (a) the severity of tree ills and those problems of immediate concern; (b) the manpower and equipment necessary for an effective program; (c) the money required; and (d) the suitability of tree species planted or to be planted.

A master highway tree plan should be developed (a) to integrate economic, aesthetic, and ecological realities to form a practical program of landscape design and (b) to establish short-, intermediate-, and long-range goals that are flexible.

The following specifics should be considered: maintaining mulch, aerating the soil, feeding, watering, pruning, insect control, and tree removal.