

Title:

Tough Trees for Tough Sites: A video and companion booklet to help nursery producers match urban demands

Project Leader:

Nina Bassuk, Department of Horticulture, Cornell University

Cooperators:

Peter Trowbridge, Landscape Architecture Department, Cornell University and Andrew Hillman, City Forester, Ithaca New York

Type of grant:

Pest resistant crops and training practitioners to use IPM techniques.

Project location:

The video was shot in and around the Ithaca, NY area, however the applicability of the message can be applied nationally.

Abstract:

This 23 minute video takes the viewer through the site assessment, decision making and plant selection processes on a real street tree planting site in Ithaca, NY. Over the course of one year, the site is investigated and transformed-a process documented by the video. We see the process from the many stakeholders points of view: the city forester, landscape architect, nursery professional, horticulturist and the public. The importance of site assessment in establishing a low maintenance, pest-free landscape is discussed.

Background and justification:

Any IPM good program will begin by selecting plants that are well adapted to the landscape including a low susceptibility to pests and diseases. Although planting sites vary tremendously by climate and soil, we share the need to know how to perform a comprehensive site assessment in order to make the best selection of trees for difficult urban environments. In many municipalities, the use of supplemental resources such as spraying for pest or disease control, irrigating and fertilizing are severely limited by budget, labor and environmental constraints. In addition, the nursery grower needs to have the most up to date information on pest resistance and environmental stress tolerance for tree species and cultivars. Much of the marketing of new tree cultivars or underutilized species comes directly from the grower to the city forester or landscape architect. As such, the growers need the most up to date information. The first line of defense in an integrated pest management strategy should be the proper siting and of plant material to maximize plant vigor, and proper selection of plants to minimize their susceptibility to disease and insect pests. Moreover, there is increasing information about abiotic conditions predisposing a plant to insect or disease attack. By using a combined approach of understanding the environmental constraints and opportunities of a site, we can then make the best decision about appropriate plant choices and the possible need for site remediation.

Objectives:

We intend to create a 15-20 minute video and companion booklet that would help nursery growers, landscape professionals and community tree boards 1) understand the opportunities

and limitations of any given site for sustainable tree growth. We then will 2) describe and demonstrate a process for synthesizing site information in order to make the best selection of tree species, or equally important, to know when site conditions must be modified in order for trees to grow successfully.

3) The companion booklet will support the video by encompassing tree by tree detail that is not possible to cover in the video. This information is most directly applicable to nursery growers and knowledgeable landscape managers.

Results and discussion:

The video has been completed and was first 'field tested' at the annual meeting of the Society of Municipal Arborists, October, 2002. We had many positive comments about it from the 150 participants and many copies were sold on the spot. Participants felt that it would be useful in presenting ideas about sustainable urban tree planting to their local governments, tree commissions, landscape architects and nursery professionals. The companion booklet that is to accompany the video is available but is currently undergoing revision to take advantage of the latest information on tree selection. Nurseries now have recommendations on stress tolerant trees to grow while landscape managers and landscape architects have better recommendations on what trees to specify for difficult urban sites. Both the supply and demand for these trees needs to be simultaneously developed for meaningful implementation of these improvements to affect the urban environment.

The video and booklet are now available through the Department of Horticulture. We hope to monitor nursery catalogue selections and tree orders from municipalities as one way to evaluate the long term effects of this educational effort. In addition, the dissemination of these resources to Extension Educators should provide them with better guidance in helping growers and managers choose plants for the landscape.

Samples of materials:

The video and booklet (in its current un-revised form) will be sent with this report.