## Alternative Treatments

It has often been said that you need the right tool for the right job, and tree care is no exception. Insects and diseases have been controlled by spray treatments for decades. The days of using highly toxic chemicals to control insects and disease are over. New chemical formulations and application methods can achieve control while minimizing non-target damage to plants and animals.







## New Tools for Managing Insects and Disease

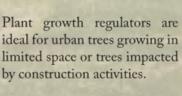
- Soil injection of insecticides and growth regulators
- Microinjection of fungicides or insecticides directly into tree
- Using biological controls (natural predators) to control insect populations
- · Using Integrated Pest Management (IPM) principles to manage insects for control, not elimination

A group of chemicals called plant growth regulators has become available to arborists. These chemicals were developed by power companies to reduce the need for line clearance pruning by limiting canopy growth. Energy normally reserved for growth is redirected to the root system by these chemicals. The results of repeated applications are:

- · Increase in fine root development
- Thicker, greener leaves
- Reduced water stress
- · Reduced shoot (twig) growth

## Plant Growth Regulators

by construction activities.





Plant growth regulator application (basal drench shown here)

This tree could benefit from a plant growth regulator application

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