

## PEST MANAGEMENT REDUCES STRESS

The complexities of survival in today's world create stressful situations not only for humans, but also for members of the plant world – your trees and shrubs.

### *What causes stress?*

Among the many stress factors which may affect your trees are air pollution, drought, mechanical injury, adverse soil conditions and winter injury. Two other major causes of stress are insects and diseases, which destroy or impair the function of leaves. Leaves are the important energy manufacturing system in trees.



Figure 1. *White malady is another name for pine needle scale.*

A variety of insect pests feed on trees. These include leafminers, scales (Figure 1), mites, weevils, leaf-chewing caterpillars and beetles (Figure 2), bark beetles and borers. Bark beetles and borers (Figure 3) are especially attracted to “stressed” trees. Research shows that trees defoliated two years in a row may be killed or thrown into an irreversible decline.

Leaf diseases such as apple scab (Figure 4), rust and anthracnose of ash, maple, oak and sycamore can weaken trees and subject them to attack by other insects or fungus. Many cankers and root rots can only become established upon stressed plant material. This stress often starts at planting and is due to selecting poorly drained planting sites, improper soil texture or pH.

### *What can be done to alleviate tree & shrub stress?*

Spraying or soil injection treatments are effective techniques to reduce insect populations in trees and minimize plant damage. A preventive maintenance, “inspect and treat program” provides the best protection. Winter “dormant” oil applications suppress many scale insects, mites and eggs that overwinter on trees. These should be



Figure 2. *Japanese beetles defoliate plants in hungry hoards.*



Figure 3. *Borers are a serious threat as they sever vascular tissues, a plant's main nutrient pipeline.*



Figure 4. *Apple scab is a fungal disease that can defoliate crab apple trees.*

followed by three to four “inspect and treat” visits scheduled during the spring and summer or as needed. Applications may not be necessary every visit, but evaluation by a horticultural expert is necessary to ascertain the best option to avoid pest damage.

In conjunction with pest management, proper fertilization, mulching and watering also can help alleviate stress. By pre-scheduling your landscape plants’ inspect and treat visits, you can help maximize the beauty and health of your valuable trees and shrubs.