

IPM for Landscape Plants

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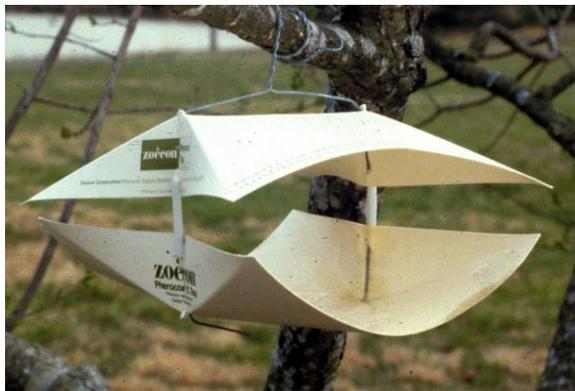
Maintaining the health and vigor of trees and ornamental plants is the best defense against insects, mites, disease, and other plant stresses. To protect the health of ornamental plants using environmentally sound techniques, a scientific approach to plant care and pest suppression has been developed, commonly called Integrated Pest Management (IPM).

Components of a typical IPM program

Professional Monitoring

A trained plant health care specialist (monitor) inspects specified plants on each property. Using a variety of techniques, the technician will detect and prevent serious plant health problems. Examples of these techniques are using an insect pheromone trap to determine when borers are on a property before they lay eggs (Figure 1) on susceptible plants or the release of biological control organisms to suppress pest populations without chemical treatments.

Figure 1: Clearwing borer trap



Safe Treatments

Once a potential problem has been identified, the most effective and safe solution is specifically tailored to arrest its development. IPM uses only ecologically sound, biodegradable materials and targets only affected plants.

Reporting

After each inspection, the property owner or manager receives a detailed report of problems that have developed, which plants were affected, and what action was taken by the plant health care specialist. This record keeping system helps monitor plant health and can be helpful in predicting future outbreaks.

Is IPM new?

Applying IPM principles to the managed landscape is a fairly new concept, but practices are based on the IPM models used successfully in agricultural plant protection for many years. The Bartlett Tree Research Laboratories has adapted many of those techniques and developed a landscape IPM program uniquely suited for landscape plants.

What are the advantages of IPM?

IPM programs allow for dramatic reductions in chemical input while maintaining landscape plant health and aesthetic value. This is achieved by monitoring plant health through regular inspections and choosing the most sustainable and targeted treatment options for specific identified pests. Treatments are applied only to augment natural biological control and specifically target only those plants threatened by the identified pest (Figure 2).

Figure 2: Spray treatments are carefully applied only to plants found to be infested with a pest



This is very different from the “cover spray” approach. Cover spray applications are made without inspecting pest levels and are often incorrectly timed, after most of the damage has occurred. Cover sprays generally use broad spectrum pesticides that may have negative impacts on non-target, beneficial organisms. This threatens important pollinator and naturally occurring biological control organisms, potentially leading to chemical dependency, pest resistance, and continuous spraying to try to control pest outbreaks.

What else is different about IPM?

Diseases and insects are often not the true cause of declining plant health. Instead, cultural problems such as soil compaction, poor pruning methods, and incorrect plant selection lead to poor plant condition.

These are problems that are often overlooked when a routine spray program alone is implemented. With IPM, properties are visited frequently and these problems can be identified while there is time for corrective action (Figure 3). In many cases, fixing cultural problems will eliminate secondary disease and insect issues without any additional treatments.

Figure 3: A plant health care specialist using a hand lens to inspect plants



Founded in 1926, The Bartlett Tree Research Laboratories is the research wing of Bartlett Tree Experts. Scientists here develop guidelines for all of the Company’s services. The Lab also houses a state-of-the-art plant diagnostic clinic and provides vital technical support to Bartlett arborists and field staff for the benefit of our clients.