

## **Seattle University Grounds Department Integrated Pest Management Policy**

Integrated Pest Management is a decision-making process used to address pest problems in the landscape.

A pest is defined as any organism that competes with the aesthetic value of plants in the landscape. This can include insects, bacteria, viruses, fungi, animals and plants. IPM implementation will aim to suppress pest populations to an acceptable level. Several strategies will be used to approach plant protection, with the goal of using the most environmentally responsible methods, with minimal risks to people and the environment. The IPM program at Seattle University does not include use of synthetic chemical pesticides.

At Seattle University, the goal of the IPM program will be to maintain and improve overall plant health and vigor. This will be accomplished through a two tiered approach, with short term and long term strategies. The IPM coordinator will be responsible for overseeing the implementation of this program.

### **Short Term Strategy**

Short term IPM strategies will address problems that presently exist or subsequently occur in the landscape. These steps will be taken in the process:

**Identification:** Positively identify both the pest organism and the host plant.

**Establish an aesthetic threshold:** what is the relative value of this plant in the landscape? Is it a key specimen? What level of damage can be sustained before action needs to be taken? Will existing beneficial insects take care of the problem, given time and provided habitat?

**Monitoring:** Careful monitoring of existing problems can help determine pest populations, the pest's life cycle, under what conditions damage occurs, and to determine if and when aesthetic threshold levels are reached.

**Mechanical Control:** Removal of damaged plant parts or insect pests using hand removal, pruning, and/or water spray. Use of traps and barriers. Use of compost tea for disease suppression. Use of horticultural soaps, such as Safer Soap. Spraying of vinegar-based products and clove oil-based products will be used for weed control.

**Cultural Control:** Change in irrigation pattern, fertilization program, mulch use. Pruning to increase air circulation and better light availability. Good sanitation practices, removal of diseased or infected plant material, removal of potential alternate host species and clean up of sites that may harbor insect vectors.

**Biological Control:** Can be Conservation Biological Control: allowing native beneficial insect populations to build in response to pest infestation, or Classical Biological Control: purchase and release of biological controls such as parasitic wasps, lacewings, etc. to manage a targeted pest problem.

**Removal:** When other methods fail, are not cost-effective, or not applicable, it is appropriate to remove plants from the landscape that exceed the aesthetic threshold.

## Long Term Strategy

Long term IPM strategies will address the long range goal of building a healthy environment in which plants will obtain optimum health. These strategies are:

**Careful plant selection:** Choose plants that suit the location. Considerations should include exposure, soil profile, site use, irrigation, companion plants. Choose varieties that have demonstrated resistance to pest problems. NW native species and habitat enhancement considerations should be given high priority in the selection process. Inspect plants for signs of disease or insects. Inspect the root ball to assure plants are not excessively pot bound or have large girdling roots.

**Soil preparation:** When planting, soil that is compacted should be scarified and topsoil added if necessary. Sifted compost may be incorporated into topsoil or coarse compost used as a top dressing. All possible measures shall be taken to prevent soil compaction, such as limiting foot and vehicle traffic, limiting materials storage in landscape beds, etc.

**Cultural Practices:** Use of compost as top dressing to encourage microbiological activity in the soil. Use of chipped woody material as mulch will encourage microbiological activity and for weed suppression. Use of compost tea, mycorrhizal fungi, and biostimulants in critical areas will augment soil biology. Pruning will enhance air circulation and for removal of diseased limbs. Clean up plant debris from around plants with fungal leaf disease to prevent further spread.

**Beneficial Wildlife Habitat Enhancement:** Plan to provide food, nectar, and nesting sites for beneficial insects and birds. Incorporate critical habitat plants into landscape designs. Maintain areas of deep habitat, with layered vegetation and refugia left in place in all sections of the campus.

**Monitoring:** Year round monitoring of landscapes to scout for potential site problems (irrigation, etc.) assess pest populations, check for early symptoms of disease and assess overall plant health.

**Education:** Staff will be kept well informed regarding the latest research and advances in sustainable landscape management, especially in regards to organic landscape management.