

Integrated Pest Management and Plant Health Care Plan

The University of Texas at Austin – Landscape Services Division

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Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common sense practices. IPM programs use current, comprehensive information of the life cycle of pests and their interactions with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. IPM programs take advantage of all pest management options possible including, but not limited to, the judicious use of pesticides.

Understanding pest needs is essential to implementing IPM effectively. Pests seek habitats that provide basic needs such as air, moisture, food, and shelter. Pest populations can be prevented or controlled by creating inhospitable environments, and by removing some of the basic elements pests need to survive. An understanding of what pests need in order to survive is essential before action is taken.

Plant Health Care (PHC) for Landscape Areas

Step 1: Inspecting, Identifying, and Monitoring

Inspect site(s), identify, and monitor pest populations for potential problems.

An IPM program consists of a cycle of inspection, identifying, monitoring, evaluating, and choosing the appropriate method of control. Routine inspecting and accurate identification of pests are vital steps in IPM to ensure that control methods will be effective.

Step 2: Set Action Thresholds

These are the levels of pest populations or site environmental conditions that require remedial action: An action threshold is the level at which action is initiated. It is determined based on plant health and safety. This is how many pests can be tolerated. The action threshold is set by the campus landscape professionals. The presence of a pest does not, in itself, necessarily require action.

When pest populations exceed pre-set action thresholds, action must be taken. Precise recommendations or actions to achieve specific results are an essential part of an IPM program. Specific recommendations should be based on the evaluation of all available data obtained through inspection, identification, and monitoring.

Step 3: Applying IPM Strategies to Control Pests

These include improving sanitation, employing pest-resistant plant varieties, establishing best management practices, and applying pesticides judiciously. Pest prevention measures can be incorporated into the landscape. Such preventative measures reduce the need for pesticide applications.

Typical Pests

- Turf pests: broad leaf and grassy weeds, insects such as grubs or sod webworms, thrips, aphids, and worms.
- Shrub/Tree pests: mites, caterpillars, worms, aphids, scale, borers, leaf/twig galls
- Diseases: brown patch and other turf grass diseases; oak wilt, root rot (fungi), leaf spots, hypoxylon fungus, bacterial leaf scorch and other ornamental and tree diseases.
- Other pests: squirrels, leafy mistletoe, ball moss

PHC & Maintenance Practices:

- Select the appropriate turf species for the area (aspect, soil depth, aesthetic).
- Raise mowing heights for turf to enhance competition with weeds and conserve water. Adjust cutting height of mower depending on turf type. Keep mower blades sharp and vary mowing patterns to help reduce soil compaction.
- Water turf infrequently but deeply during early morning hours to allow turf blades to dry before nightfall. Let soil dry between watering.
- Provide good drainage and periodically inspect turf for evidence of pest or disease.
- Allow clippings to remain on the turf. Use mulching mowers or mow often to eliminate the need to collect clippings.
- Aerate soil as-needed, and top-dress with compost where appropriate.
- Have soil tested to determine fertility requirements.
- Use appropriate tools for plant and tree maintenance and keep them sharp.
 - Hand pruners, loppers, hand saws, pole saws/pruners
 - Make proper cuts according to the plant requirements
- Sanitation:
 - Sanitize all tools when pruning any species of oak tree (Lysol or bleach water).
 - Pick up and dispose of infested leaves when applicable.
- For Oak Wilt, paint all cuts on oaks any time of year, and reduce pruning on oaks from February 1 – June 30 (prune for safety and construction only).
- Monitor plant health for damages/inconsistencies; strive for healthy soils; supplemental water in times of drought.
- Strive for a diversity of plant species, thus avoiding monocultures.
- Strive to use the least toxic form of chemical application (pesticide, herbicide, fungicide) when deemed necessary; organic and biological controls shall be considered first.

Effective date: 1/30/2020 (This plan shall be reviewed every 3 years.)

Approved by: Jim Carse

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