

## **Integrated Pest Management Practices**

The Landscape Services team of the Facilities Services Department at the University of Tennessee, Knoxville, practices Integrated Pest Management (IPM) methods to manage undesirable vegetation and plant damaging insect populations that are beyond tolerance level threshold. IPM is a standard operating procedure practiced by our three primary units of Landscape Services (landscape, turf, and arboriculture). The ideals of IPM are necessary on a living, breathing college campus. The dense population of commuter and non-commuter students, faculty, staff, and visitors present on campus every day and adjacent navigable waterways do not prohibit aggressive methods of control opposite of the IPM protocol. Furthermore, budget constraints cannot afford a "take all prisoners" approach to weed, disease, and insect control in the landscapes of our campus.

The Landscape Services team uses manual removal practices as a first approach in the landscape. Once a true insect threat has been recognized, the condition is placed on observation for monitoring. In some cases, entire plants are removed to eradicate the treat and replaced with pest-free specimens. Insecticides are only used if the damaging threat population reaches a non-tolerable threshold. If this occurs, systemic insecticides are injected directly into the plant's vascular system or soil surrounding the root system of the plant. Airborne-type sprayers are not used to apply insecticides on campus. Furthermore, insecticides are not used on the University of Tennessee (Knoxville) Early Learning Center properties.

As for weed control in the landscape, our team uses manual weed removal as a baseline process. That said, there are situations in the landscape where weed pressure goes beyond a manageable threshold. In these cases, the landscape team will determine the best option for eradication based on campus location and potential human activity levels. If herbicides are administered, a product labeled with a low hazard classification is used to assist in weed control. These products can be selective or non-selective in control. On and around the University of Tennessee (Knoxville) Early Learning Centers, the Landscape Services team uses manual weed removal practices as the standard. As a last resort, a product for weed control will be used during times when children are not present to include weekends. The product used has a glyphosate based active ingredient. Glyphosate-based products are labeled as non-toxic to mammals. Its mode of action is only through the foliage of the target vegetation. The product becomes inactive once it hits the soil. The Landscape Services team does not chemically treat weed populations or apply fertilizers in lawns on the Early Learning Center properties.

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