

# University of North Texas Integrated Pest Management Plan

## **Introduction:**

The University of North Texas is committed to environmental sustainability. As part of our commitment we have implemented an aggressive Integrated Pest Management (IPM) plan to reduce our use of chemical pesticides. This plan will outline the fundamental aspects of UNT's IPM strategy for all locations outside of buildings.

## **Licensing and Training:**

The Texas Department of Agriculture (TDA) regulates and licenses individuals who apply pesticides. The TDA allows for pesticide applicators to supervise applications by non-license holders, but UNT only allows state-licensed Noncommercial Political Pesticide Applicators to perform pesticide applications on the campus. Complying with State of Texas standards, all UNT employees who apply pesticides go through rigorous training and education to become State Licensed Noncommercial Political Pesticide Applicators. This high level of training, along with monthly meetings, ensures that our employees understand and follow our IPM strategy.

## **IPM Fundamentals:**

### Acceptable pest levels:

The emphasis is on *control*, not *eradication*. This IPM plan contends that wiping out an entire pest population is often impossible, and the attempt can be expensive and environmentally unsafe. At UNT, the goal is to keep these pests in check using a combination of methods, with pesticides being our last resort.

### Preventive cultural practices:

The first line of defense against pests is selecting plant varieties best for local growing conditions, maintaining healthy landscapes, plant quarantine, and 'cultural techniques' such as plant sanitation. UNT will attempt to quickly identify and treat plant diseases before any outbreaks are able to spread.

### Monitoring:

Regular observation is the cornerstone of IPM. Observation is broken into two steps:

- 1) Inspection: The University of North Texas Grounds Department staff visually inspect the plant life around campus on a daily basis as they come in contact with it. All mow crew and landscape staff are trained annually on what to look for and how to identify the presence of pests.
- 2) Identification: The Noncommercial Political Subdivision Pesticide Applicators Licenses require that all of our licensed employees attend conferences, seminars, or continuing education classes to keep a valid license. As a result, the team is always made aware of new pests and outbreaks in our area to lookout for.

### Mechanical controls:

Should a pest reach an unacceptable level, physical and mechanical control methods will be considered as the primary options. The University of North Texas Grounds Department staff are able to identify problem weed species and remove them by hand or with tools. This, along with our annual Campus Clean-up Day, helps ensure that our landscape environment stays clean and free of the majority of weeds. We also put down large amounts of shredded mulch/compost in the planter beds on campus where weeds are a problem. The mulch helps reduce the amount of germination from weed seeds in the soil by blocking the sunlight necessary for weeds to germinate and grow.

### Biological controls:

Natural biological processes and predatory organisms can provide control with minimal environmental impact and often for lower cost. The primary focus for UNT is to promote the existence of predatory insect populations that may help control pest populations. We promote these predatory insect populations by forbidding the use of pesticides containing neonicotinoids.

## **Responsible Pesticide Use:**

### Pesticides:

The University of North Texas Grounds Department uses only the safest, lowest toxicity products possible for effective control of pests. Pesticide use will comply with all local, state, and federal regulations. No “restricted use” or Red List pesticides will be used. UNT is committed to protecting

pollinators, and therefore mandates there will be no use of **Neonicotinoids** on any property owned by UNT.

Synthetic pesticides are used as required and only at specific times in a pest's life cycle. When possible, UNT Grounds staff use pesticide groups that are derived from plants or naturally occurring substances (*e.g.* pyrethrum, insect hormone analogues, or insect growth regulations). Surfactants will be used to help maximize the effectiveness of each appropriate pesticide treatment and to minimize the necessity of retreatment. The UNT Grounds staff will primarily rely on spot treatment of pesticides. Broadcast treatments will only be used when infestation reaches extreme levels. UNT Grounds staff will exclusively use low-volume spray equipment to reduce overall pesticide use and to minimize environmental impact.

### **Pest Management Objectives:**

- Identify, control and manage existing pests & weeds on UT Dallas property.
- Prevent pest interference within the student learning environment.
- Eliminate possible injury to students, staff, faculty, visitors and all other facility occupants.
- Preserve the integrity of university facilities, buildings and structures.
- Provide a safe environment for recreational and athletic field and area usage.
- Use the least toxic chemical treatment options possible with preference to organic treatments.

### **Definitions:**

**Neonicotinoids:** Neonicotinoids are a class of neuro-active insecticides that can negatively affect predatory insect populations.

**Surfactants:** Surfactants are a form of adjuvant that increase the efficacy and spreadability of many herbicides and pesticides.

**Red List:** The United States Environmental Protection Agency (EPA) rates all pesticides and assigns labeling to enable enforcement of pesticide requirements. The red list contains all of the worst in class materials that can be used for different applications. In this instance Red List is the most harmful class of pesticides as rated by the EPA.

**Green List:** The Green List contains all of the best in class materials that can be used for different applications. In this instance Green List is the least harmful class of pesticides as rated by the EPA.

Yellow List: The Yellow List contains materials that have some negative harmful effects, but not negative enough to be placed within the Red List. In this instance, the Yellow List is a class of somewhat harmful pesticides as rated by the EPA.

Plant Sanitation: Removal of diseased plants, and cleaning pruning shears to prevent spread of infections.