Concordia College Grounds Services Integrated Pest Management Program

As a first impression a well maintained landscape is integral to the decision of potential students choosing a college. The goal for Concordia College to provide a landscape that is attractive while using sustainable methods to control pests, resulting in a quality environment for the students, faculty and staff to learn, live and work. To achieve this goal Concordia College has adapted an Integrated Pest Management (IPM) plan.

Definition:

Integrated Pest Management (IPM) is a management decision-making process in which a sustainable approach is used to control insects, weeds, plant pathogens, and other pests utilizing cultural, biological, physical or chemical means. By using this methodology, risks from pesticides to human health and the surrounding environment can be reduced. Concordia College will follow these general principles of IPM.

* Conduct regular inspection of Concordia grounds turf and landscape areas for early detection of pests and other problems to reduce the scale of treatment.
* Utilize cultural measures to reduce chemical use.
* Conduct a ongoing evaluation of chemicals to identify new less toxic chemical options.
* Schedule treatments to minimize potential impacts on campus activities.
* Identify pest thresholds that require use of pesticides.

Coordination:

The coordination of the Concordia IPM policy will fall upon the Grounds Supervisor, Director of Facilities Management, and the Office of Sustainability.

Inspection Program:

In order to respond to pest problems using IPM, Concordia College will conduct regular monitoring of the grounds as follows:

Turf and grass areas:

During the growing season, the frequency of inspections will be a minimum of once per month. Since many pests are influenced by environmental conditions, this frequency may be increased if needed. Records of inspections and pest populations will be maintained by Concordia College Grounds Services.

Woody plants and trees:

Woody plants and trees will be inspected for pests 3 times during the growing season. The times will be dependent on environmental conditions but in general are:

1. Before the plants leaf out in the spring.
2. Between the plants leafing out and early summer.
3. Early fall before the plants go dormant.

Prioritizing the campus:

The campus is divided into two areas:

1. The main campus which includes the campus between 8th street and 5th street from 7th avenue to 12th avenue. Also included is the Advancement center, Welcome Center, Riverside and East Complex.
2. The remaining campus area is primarily between 11th Street and 8th Street excluding East Complex.

Turf management:

We will utilize best cultural management practices when maintaining turf health and appearance. Turf will be mowed to a minimum height of 2.5” or at a height as high as possible while still maintaining a groomed look. Athletic fields may be mowed at a lower height during the sporting season as required by the sport. Mowing should be done when the grass is dry to avoid spreading turf diseases. The mower blades should be maintained with a sharp cutting edge which results in clean cuts on the grass blades reducing stress on the grass plants.

Each year before fertilizer application, soil samples will be collected and analyzed to asses soil fertility. Amendments will be made to the soil as recommended by the analysis. Proper soil fertility will help prevent turf disease and increase plant vigor, reducing weed invasion. Over fertilization should be avoided to reduce the incidence of some turf-grass diseases, more frequent mowing and an increase in the thatch layer.

Organic fertilizer should be used if practical, otherwise use fertilizers with at least 50% slow release nitrogen applied at a rate not exceeding 2-2.5 lbs pre 1000 square feet unless soil fertility tests show the need for more nitrogen. The fertilizer will not contain any phosphorous. Fertilizer application should be timed when grass is actively growing, usually in late May / early June before summer heat and late August / September. Fertilizer should not be applied later than October 15th.

Managing grass clippings is important to the turf health. Grass clippings should be allowed to remain on the lawn and allowed to degrade if not excessive. Leaving the grass clippings on the lawn will return nitrogen into the soil as well as increase organic matter. Leaving grass clippings creates a thatch layer which is beneficial if it is in the ½ to ¾ inch range. Excessive thatch is undesirable and can block moisture and fertilizer reaching the roots of the grass. If it is necessary to dethatch the grass, it should be done in the summer or fall when the grass is actively growing and can quickly recover.

Weed Control:

A properly maintained lawn should have dense, thick turf-grass, which will prevent weeds from getting established. Some weed growth should be anticipated even with a healthy lawn and be tolerated. Widespread, blanket application of herbicides should not be performed in area one unless weeds species have invaded greater than 10% of the turf area. Spot applications can be applied in small areas as needed. When weeds cover 25% or more of the turf in area two, blanket spraying can be used to control the infestation. Spot applications should be used if weeds are concentrated in certain areas.

Herbicides used on campus should be either class 3 (slightly toxic labeled with “caution”) or class 4 (not toxic with no signal word required).

Ornamental beds and woody plant care:

Best cultural management practices will be used in the care of ornamental beds and woody plants on Concordia’s campus. Plants will be selected that are as resistant to diseases and insects as much as possible. Plants will be obtained from reputable nurseries and greenhouses. Prior to planting, the plants will be inspected for insects and diseases. Any plants that show infestation will be rejected to avoid introducing pests to the healthy landscape. Ornamental plants will be planted at proper depth, with proper planting techniques, as outlined in the appendix, to avoid unnecessary stress. After planting, ornamental beds as well as trees should be mulched with wood bark to a depth of 3” which will prevent weed growth as well as retain moisture in the soil. Mulch also provides a buffer, helping to prevent mechanical damage by mowers and trimmers. To help prevent disease, dead and dying vegetation should be disposed of on a regular basis. Leaves should be removed from the beds in the fall.