IAA Green Industry Training Modules

Turfgrass Weed Control
Unwanted plants or weeds are highly noticeable pests of turfgrasses. This module includes an overview of why some plants are classified as weeds, herbicide terminology, and cultural programs for reducing weed problems in lawn and sports turf. Annual grass control for weeds such as crabgrass and goosegrass using herbicides geared to the Mid-Atlantic region will also be covered. Broadleaf weed control covers the major types of postemergence herbicides and optimal conditions for usage. Perennial grass and nutsedge control products and programs will also be discussed. Both selective and nonselective herbicides are covered within this section. **Cost: $90.**

Turfgrass Insect Control
Though many insects are beneficial, some can cause extensive damage to turfgrasses. This module covers the major insect pests in the Mid-Atlantic region. Identification of white grubs such as the Japanese Beetle, Masked Chafers, and June Beetles will be covered, as will damage symptoms and control programs. Other damaging insects covered in this module are Billbugs, Chinch Bugs, and Sod Webworms. Principles of integrated pest management will be emphasized when assessing control options for insect pests. **Cost: $90.**

Nitrogen Fertilization
Nitrogen, one of the most important nutrients for turfgrass quality, is a cornerstone of turfgrass fertilization programs. However, concerns over the role of excessive nitrogen levels on environmental and plant quality need to be addressed. This module explores different types of nitrogen fertilizers used for turfgrasses, as well as basics of nitrogen fertility. How nitrogen becomes available for plant uptake and the advantages and disadvantages of different nitrogen fertilizers are thoroughly addressed in this module. **Cost: $60.**

Turfgrass Growth and Development
Due to their growth characteristics, turfgrasses are able to withstand traffic and mowing, thus allowing a range of uses from lawns to sports fields. Turfgrass managers must understand how grasses respond to environmental and management inputs focused on growth and development. This module covers the many facets of plant growth, from photosynthetic and respiratory activities to the major growth areas of turfgrass plants. The importance of root growth, tillering, and inflorescence development will be discussed. **Cost: $70.**

Turfgrass Species Selection
Selecting turfgrass species and cultivars that are best adapted to known environmental conditions and management inputs is a critical component of best management practices and integrated pest management programs. This module will look at different groups of turfgrasses (e.g., warm season and cool season turfgrasses) and how they are best suited for lawn and sports field applications. Criteria such as shade, wear, heat, and drought tolerances, as well as various environmental factors must be considered when selecting species and cultivars. This module also covers mowing height, fertility, and irrigation requirements for different turfgrass species. **Cost: $70.**

Turfgrass Soils
The ability of turfgrasses to absorb nutrients and water are critical in maintaining healthy growth. Knowledge of soil characteristics such as texture, porosity, and nutrient retention is critical in implementing proper fertility and irrigation programs. This module covers topics such as biotic factors that influence soil health, the influence of soil pH on nutrient availability, and how soil porosity affects soil water movement and plant water uptake. This module also investigates the impact of wear and compaction on plant growth, the role of organic matter on soil productivity, and how soil chemistry affects nutrient availability. **Cost: $70.**

Turfgrass Adaptation to Environmental Conditions
How do turfgrasses survive drought conditions? What about freezing temperatures? Learn the steps to maximize turfgrass adaptation to these stressors. The importance of light quality and intensity are also reviewed, as are heat stress and heat adaptation. Practices such as adjusting mowing heights or nitrogen fertility to provide a more favorable plant response to these conditions are discussed in detail. **Cost: $70.**

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