



# **IPM REPORT CARD FOR SCHOOL GROUNDS**

## **Turf**



### **A Self Assessment Tool for School Administrators and Those Making Pest Control Decisions on School Grounds**

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Thank you for requesting the School IPM Report Card - Turf. Use this document to evaluate your facility and its pest management activities. This exercise should also help learn about integrated pest management on school grounds (IPM), what it involves and how it varies depending on the outdoor areas at the school being maintained. Once you have completed this report card and made the necessary changes, additional report cards covering landscape plantings, ornamental pests and athletic fields are also available for your use.

## **How the Report Card Works**

The following material is designed to help you to make a self assessment of your pest management practices that are used around the school. It is divided into six sections. Each section is designed to evaluate a different area of the school grounds.

As you answer the “yes” or “no” questions for each section you will be able to rate your performance as either poor, fair or good. If you answer “yes” to less than 50% of the questions in an individual section then you’re doing a “FAIR” job with your IPM program and need to implement considerable changes. If you are between 50 and 75% then you’re doing “FAIR” job and need to make a moderate number of changes. If your score is between 75 and 100% then you’re doing a “GOOD” job and need to make only minor changes.

When you have completed the self assessment tool, rate your overall performance. If less than 50% of your section ratings are “GOOD” you need to make considerable changes. If you score is between 50 and 75% “GOOD” you’re on the right track but need to make a number of changes. If your score is greater than 75% “GOOD” you’re doing great job, need only minor changes and are well on your way to implementing a successful school IPM program.

## **Usefulness of IPM in Turf Areas**

Turfgrass IPM programs are based on the adherence to sound cultural practices. Healthy, vigorous turfgrass that is well maintained is less susceptible to damage and recovers faster than stressed turf. Simple changes in cultural practices can have a large impact on turf vigor and ultimately impact any pest problems that might occur.

The use of IPM in turfgrass can also save time and money due to a reduction in the application of unnecessary sprays and reduce the amount of pesticides applied. In fact, research conducted by Cornell University has shown that IPM tactics used on homeowner turf can reduce pesticide treatments by 82%. Cornell University research has also shown that grub control costs on golf courses can reduced by 93% by monitoring for pests instead of using broadcast insecticide applications. These studies show that quality turf can be maintained while minimizing pesticide use.



# An IPM Approach to Managing Turf Areas on School Grounds

## 1. General Turf IPM Scouting Practices

- |   |       |
|---|-------|
| • Is IPM monitoring of turf areas done at least once a monthly basis during the growing season?   | Y   N |
| • Are high profile/high traffic turf areas scouted at least every 2 weeks during the season?  | Y   N |
| • Are simple, but useful written records are completed during each scouting visit and are they maintained for at least 3 years?   | Y   N |
| • Are the scouting records from past years reviewed periodically during the season to help improve monitoring efficiency and effectiveness (i.e., past problems can be anticipated and caught early, before they cause damage to the turf)? | Y   N |
| • Is a formal or rough map with approximate scale produced that indicates the location of turf areas and divides them into management units or grids (i.e., problem areas and approximate locations are identified)?                        | Y   N |
| • Are copies of the map identifying locations of past problems with weeds, insects, diseases, compaction, drainage, thatch, erosion, bare areas, etc. updated annually?   | Y   N |
| • When scouting turf areas, is a serpentine or other regular pattern used in order to achieve a good sampling representation?   | Y   N |

**YOUR SCORE: (G/F/P)**

## 2. Turf IPM Cultural Practices

### Mowing

- |  |       |
|--|-------|
| • Is the mowing height of the turf areas set at between 2 and 3 inches in height (mowing heights are maintained as high as possible for functional use, but can be adjusted according to weather conditions, rate of growth, and species/variety of turf)? | Y   N |
| • Are turf areas mowed at a frequency interval so that no more than 1/3 of the grass blades are removed during a single cutting?   | Y   N |
| • Are mulching mowers or special attachments used in order to effectively recycle grass clippings?   | Y   N |
| • After mowing, are grass clippings removed from paved areas and properly disposed of and composted?   | Y   N |
| • Are mower blades maintained and kept sharp to achieve a clean cut?   | Y   N |

*Of the many important cultural management techniques of turf, perhaps proper mowing techniques are the most important. Unfortunately, proper mowing practices are frequently not done and easily avoided problems occur (e.g., weed encroachment, disease enhancement, reduced turf density, shallow root systems, etc.).*

**YOUR SCORE: (G/F/P)**



## Water Management

- Is high use turf provide with 1” of water from rain or irrigation weekly during the growing season Y N
- Is irrigation timing determined by need and weather forecasts, and not on a fixed schedule? Y N
- Are irrigation or sprinkler systems timed in order to minimize duration of leaf wetness and limit infection from moisture-dependent turf diseases(e.g.,pythium, rhizoctonia blights, rusts)? Y N
- When irrigation is necessary, is it applied in sufficient quantities to thoroughly moisten the entire turf root system in order to encourage deep rooting (i.e., frequent, shallow irrigation is not the routine practice)? Y N
- Are areas of poor drainage corrected? Y N
- Are dry soils improved by amending soils with organic materials? Y N

**YOUR SCORE: (G/F/P)**

## Fertilization

- Is soil testing of the turf areas done at least every two years to determine phosphorus, potassium and pH levels? Y N
- Are fertilizers and other amendments (e.g., lime) applied according to soil test results and not by a routine maintenance schedule? Y N
- Are nitrogen fertilizers applied based on species, time of year, and turf vigor? Y N
- When required, is at least 1/3 of the total annual nitrogen from slow release sources that reduces surge growth and nitrate leaching? Y N
- Is the largest percentage (at least 65%) of annual nitrogen fertilization for cool season turf species applied during the fall season? Y N
- Are fertilizers containing composted organic material at least periodically applied in order to promote thatch decomposition and improve soil structure and microbial growth? Y N

**YOUR SCORE: (G/F/P)**



### Aeration, Thatch Management and Soil pH Management

- Is core aeration done with machines having hollow tines at least 3 inches long, and scheduled (if needed) when soil moisture is sufficient to enable cores to be pulled from the soil, but not too wet to enhance compaction from equipment? Y N
- Is turf aeration typically scheduled during the spring or fall months? Y N
- Is aeration timed to avoid periods when common weeds are setting seeds or germinating (e.g., crabgrass, dandelions)? Y N
- Is soil pH monitored and maintained at a desirable level (e.g., 5.8 – 6.5)? Y N
- Is thatch accumulation monitored and corrective measures implemented before thatch exceeds ¾ inch (i.e., up to ½ inch of thatch is considered desirable)? Y N

*The turf areas found within school grounds will typically have serious compaction problems. Therefore, the value of core aeration to reduce soil compaction can be very important. Furthermore, core aeration can improve the soil profile, increase soil oxygen levels, manage thatch build-up and improve drainage.*

**YOUR SCORE: (G/F/P)**

### Renovation and Overseeding of Turf Areas

- Are site specific growing conditions considered when selecting the type of grass seed species and varieties to be used within different areas (e.g., sun/shade location, drought/temperature tolerance, disease resistance, growth habit)? Y N
- If they are available are endophyte enhanced grass seeds used when renovating or overseeding? Y N

*Grass seeds containing endophytes are presently available for 3 of the 4 major cool season turf species (i.e., not commercially available yet for Kentucky Bluegrass). Their primary value is providing resistance against foliar feeding insects. Endophyte enhanced turf grasses can also increase drought resistance and improve recovery from various stresses.*

**YOUR SCORE: (G/F/P)**

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