

Title: Sports Turf TAG (Turf, Athletic & Grounds) team

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Abstract: Using IPM practices four sports turf managers with fields for players 12th grade and below will participate in a TAG team, hosting other field caretakers and managers: 1) sharing their turf IPM management practices information and 2) critically evaluate colleague practices and effectiveness. There will be monthly evaluations during the growing season. Additionally, collated practices will be available to turf managers via email and summarized during ESGI Conference 2013 and GFLNLA Education Day 2014. Goal: Advance the adoption of high-level IPM among school sports turf managers, and an understanding of the rationale by school administrators and players.

Background and Justification: With the passage of the NYS Child Safe Playing Field Act in May, 2011 no pesticides are applied to school sports surfaces without an emergency exemption. Sports turf managers are strategizing responses as they strive to maintain fields without pesticides. Based on conversations in five area school districts, current sharing information is informal, without quantification.

Through the lens of IPM methodology, and with advances in documentation, managers' activities can be integrated into the Sports Turf 'Elements of IPM' practices. These Elements were previously developed by this project leader in consultation with Extension, research and practitioners relating to sports turf. The 'Elements' were vetted within the IPM Program. This project is an implementation and evaluation of the Elements, season-long with multiple fields under multiple management regimes.

'Elements' are a concise list of practices manager may use gauging their practices' alignment with IPM principles. Individual Elements include: site assessment (soils, vegetation, field design), culture (fertilizer, pest, disease, weed insidience and history) and management (equipment and records).

Rooted in agriculture, TAG teams (Tactical Agriculture Team) integrate players connected with a farm business (farmer, agribusiness and Extension) in offering up sound farm business decision, enabling the farm enterprise to better compete in the business of farming.

These TAG Teams (Turf Athletic Group) join the collective wisdom and experiences of participating turf managers and their support network, offering up suggestions for the management of sports surfaces.

Objectives: 1) Draw correlations between field condition and management inputs.
2) Enstill importance of methodical observation and record keeping of field culture.
3) Improve understanding of 'IPM Elements' as an observation tool in the management of sports fields.

Procedures: 1) Coordinate lead site assessment information: nutrient status, current culture practices, field use, base line equipment and vegetation inventory & quality as

outlined in IPM Elements.

2) Methodical sharing of field management during monthly meetings emphasizing an 'IPM Elements' lens. Hosts review management protocol using 'IPM Elements' as an organizational outline.

2 & 3) Prepare and distribute summary of monthly meetings via e-letter. Present annual summary seminar during nursery/landscape education event.

4) Evaluation elements: a) improved use of 'Elements' by managers, b) identifiable use of IPM strategies in the care of sports turf, c) sustained turf quality in light of pesticide ban attributable to change in management practices, d) Collect additional practical 'IPM Elements' information.

Expected Outcomes/Impacts: 1) Eight school grounds caretakers have, comprehend and use 'IPM Elements' as a gauge in evaluating their fields. Five individual schools engaged in collection of 'Elements' relating to their fields.

2) Four managers beyond host cohort participate, contribute and implement knowledge as TAG team participant.

3) Annotate practice change identifiable to participation in the TAG team in eight school districts.

4) No emergency exemptions identifiable and attributable to the knowledge change through program participation.

Results & discussion:

- Modeling the field crop TAG teams, this grant was undertaken.
- In the first year of the project four quality assessments were conducted on three fields at the four cooperating public schools during the growing season (April, June, September & October). This was a continuation of similar work in two previous years. These assessments encompassed compaction and ground cover. The summaries were shared among the cooperators. Two college fields were included in able to contrast fields with similar use level and their ability to continue using of pesticides. This was undertaken to observe field quality changes that may take place resulting from not using pesticides.
- Field quality assessments were shared with participants. (FTE crew size, equipment inventory number of fields cared for, practices relating to mowing compaction relief, overseeding, and fertility) Base line soil tests were taken from a field other than the 'stadium field' and test results discussed with field caretakers.
- A core sampling tool was purchased and a penetrometer was obtained through the generosity of a cooperator. These tools were as an aid in identifying the presence of any pests or used in demonstrating compaction assessment.
- In the second year there were six monthly mini field days during the growing season, included the cooperators fields plus fields at the University of Rochester and the private Total Sports Experience complex. Attendance varied. Unanimous agreement by participants in the value of seeing what other managers are doing. Work schedules were identified as the key attendance constraint. ("The chance to compare notes and see how others are managing their fields provided ideas relating to overseeding and

- opening the soil.”)
- One session included a discussion about artificial surfaces, sand based fields. All other sessions related to natural soil fields.
- University-based cooperators spoke at three of the sessions. Field day agendas included: a review by the host of their FTE staff, equipment and field inventory and cultural practices, field quality monitoring activities (disease, open ground and pests). There were field examinations relating to rooting, compaction, and plant coverage. Overseeding was often discussed as to when, how frequency and grass type used. The overarching question addressed was: What is the relationship between field activity (care and use) and pests that could or are present? Discussion would ensue as to possible practice changes that could adversely impact pests. (“Monitoring could help me plan for seed purchases if I know there is an insect that could take out a field.”)
- A similar working group is underway in the Catskills region with input from this project’s activities.
- Participant comments included continuing the field days the next growing season. Fewer venues, each with a ‘lesson to learn’ for grounds caretaker were encouraged (four possible venues were indentified).
- Improved communicatins skills with field-use clients was identified as a means of improving field quality. (“I am not the best at communicating the importance of offering a playable field and the long term implications of field misuse.” “I’d like to have better administrative support in minimizing liability through improved field quality.”)
- Copies of IPM Elements for Sports Turf were shared with participants encouraging completion of an assessment with one or more of their fields. Outside interests (student interns?) will likley be necessary if multiple fields in a district will be reviewed with the ‘Elements’ tool. An insentive must be devised to gain greater participation in completing IPM Elements for Sports Turf on multiple fields at the participating schools. The four cooperating schools and Rochester City District engaged in completing at least an ‘Elements’ activty with one field.
- A summary of the project is scheduled during the ESGIS conference November 2013 and the sports turf track at the Genesee Finger Lakes Nursery Landscape Association Education Day February 2014.
- It was not surprising, existing soil resources and the level of management inputs directly impacted field quality. Grounds caretakers invest more management into ‘stadium fields.’ Other quality factors include: 1) priorities of particular sports and 2) those directly invested with the sport. This speaks to the relationships between grounds managers, coaches and athletic directors.
- Although caretakers recognized the value of methodical observation records, available time limits their collection. Possible liability for field quality issues is recognized as an emerging insentive for managers to collect this information. As a result of field day discussions, this information is recognized as being helpful in negotiating for field care financial support.
- The shared soil test reulsrts were remarkably uniform among the four schools. Soil type, texture and management practices differed slightly but did not

dramatically manifest differences in test results. Uniform levels of pH, phosphorus and potassium were reported.

- Without pesticides the management tool box is populated with seed, fertilizer, compaction relief and mowing practices.
- Field hockey is recognized as the most demanding sport for natural sports fields. One field day observation apparently showed varied mowing practices positively impacting turf density. (three inches in the off season, rule height in season) Although this observation is not consistent among participating schools, there is sufficient evidence worthy of a demonstration project on the topic in the future.
- Seven facilities beyond the host cohorts participated in the field days.
- Annotated practice changes resulting from the project include: 1) greater use of repetitive overseeding at all collaborator districts and three non-host districts, 2) selection of aeration equipment/practices at two districts, 3) understanding of Child Safe Playing Field Act at four districts, 4) no emergency exemption applications occurred during the project resulting from greater understanding of the Child Safe Playing Field Act, 5) Desire for conversation with/through BOCES for shared equipment opportunities, 6) Direct personal interaction with a cooperator will likely be necessary for completion of 'Elements' worksheet for multiple fields in a district.

Lessons learned:

- Fewer field days in 2014. (four sites?)
- Fall season overseeding is a winner. Less so during spring and summer. Bluegrass is often included, although acknowledged as being less useful for short term coverage.
- There were few immediate comments relating to the distributed IPM elements for sports fields or during subsequent sessions. Intense and personal follow-up is necessary to gauge interest / usefulness of the 'Elements'.
- General frustration with Safe Playing Field Act and the desire to provide a level of field quality and now cannot. A conclusion is a new paradigm of what a good field looks like. The Act may be playing into the construction of more synthetic fields. This increase may also be a game of keeping up with the competition.
- Shared equipment concept (BOCES?) of aeration and overseeding equipment.
- Improved communication between caretakers and coaches, athletic directors relating to expectations of field quality. Creating a team approach to field care. Having several individuals discuss whether field conditions make the field playable.
- Discussions included insect pest situation and dealing with same. Monitoring, having seed available to replace what could be lost. Lots of seed.
- If at all possible, keep the pesticide budget dollars and spend it on seed and fertilizer.

