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Education Program for Northeastern PA Turfgrass Conference and Trade Show, January 25, 2018

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The world of turfgrass management provides us with some insulation from the problems of society. Sometimes, it is even monotonous and boring, but you can’t beat those beautiful fall mornings at our facilities.

Occasionally, though, the outside world comes crashing in. I had one of those experiences this past fall. I left the college one Friday afternoon and headed down to my home course, which I still help to manage. I was checking the golf course and making some notes for an upcoming tournament that weekend. The crew had been preparing the golf course all week and had left for the day. Not many people were out playing. We had been stuck in an easterly flow for over a week, and the course was wet.

As I was traveling down the 2nd hole, which borders the perimeter of the property, a man came out of the tree line and was sprinting across the 2nd fairway. He clearly was not there to play golf and wasn’t out for a jog. I angled over to cut him off and see what he was doing. He stopped near the 5th tee and yelled for me to come over. As I got closer, I could tell this guy had issues. Just then, I heard someone yelling and noticed a police officer was chasing him on foot. The suspect took off running again. I didn’t know what was going on, but this was awesome. A police chase through my course!

I circled back in my cart and picked up the officer. He immediately drew his stun gun and said, “Just get me close to him.” No problem, since my cart is turned up well beyond its factory setting. The suspect, I mean “fugitive,” was headed for 6 green where a foursome was putting as we were closing in on him. He jumped in one of their carts to try to speed up his getaway. The foursome grabbed him and dragged him onto the ground while the officer tased him in the back.

Finally, he was in handcuffs and the melee was over, or so I thought. I looked up to see four police cruisers flying across the course towards us. Two of them ramped the back right greenside bunker, landed on the green and slid to a stop in the approach. They jumped out of their cars with guns drawn only to find golf course justice had prevailed. The officers were very apologetic for driving on the course, and remarkably they hardly did any damage.

It turns out that the police had been chasing him all day on federal felony charges. The local schools were even in lockdown during the manhunt. I don’t really watch the news or use social media, so I had no idea what had transpired all day. I have to give the police all the credit. It was obvious that they were not going to stop until this guy was no longer a danger to anyone in our community. You won’t hear any protesting out of me! The only victim here was some turf.

I hope everyone is able to take some time off and spend with family. Try to attend some conferences in this off-season. There are a lot of great speakers and information available to us this winter. PTC is always here for issues concerning turfgrass professionals in our state. I’m not sure we will ever have a seminar about hot pursuits. Even in this career, we need to be ready for anything!

Pete Ramsey
2017–2018 PTC President
Edible Program: Northeastern PA Turfgrass Conference and Trade Show • Thursday, January 25, 2018

Presented by the Pennsylvania Turfgrass Council and Pennsylvania State University
Woodlands Inn • Wilkes Barre, PA • www.thewoodlandsresort.com

Morning General Session

9:00 a.m. – 10:15 a.m.
Controlling Problematic Weeds in Turfgrass
Dr. Matthew Elmore, Assistant Extension Specialist in Weed Science, Center for Turfgrass Science, Rutgers, The State University of New Jersey

10:15 a.m. – 10:30 a.m.
Break

10:30 a.m. – 11:00 a.m.
Pennsylvania Dept. of Agriculture Update
Mr. Chris Santore, Agronomic Products Inspector, PA Department of Agriculture

11:00 a.m. – 11:30 a.m.
Genetically Engineered Turfgrasses: Are They in Your Future?
Dr. David Huff, Professor of Turfgrass Breeding and Genetics, Penn State University

11:30 a.m. – 1:00 p.m.
Lunch

Afternoon General Session

1:00 p.m. – 1:30 p.m.
Common Mistakes Made by Pesticide Applicators
Ms. Tracey Harpster, Extension Educator, Pesticide Education, Penn State University

1:30 p.m. – 2:00 p.m.
Low Maintenance Fine Fescues: Utility, Issues and Concerns
Dr. David Huff, Professor of Turfgrass Breeding and Genetics, Penn State University

2:00 p.m. – 2:15 p.m.
Break

2:15 p.m. – 2:45 p.m.
Making Better Weather-Based Management Decisions
Mr. Bradley Jakubowski, Instructor, Turfgrass Science, Penn State University

2:45 p.m. – 3:30 p.m.
Managing High Traffic Turf Areas
Dr. Andrew McNitt, Professor of Soil Science, Penn State University

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For more information, see paturf.org, or contact Andy McNitt using the information below:

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Pesticide Credits: CORE — 1; Category 6 — 1; Category 7 — 2; Category 23 — 3
Intestines of the EARTH:
Earthworm Management Update

By Ben McGraw, Ph.D., Associate Professor of Turfgrass Entomology, Penn State University
is difficult to tell whether Aristotle was speaking favorably of earthworms when he dubbed them “the intestines of the earth.” What we can be sure of is that he never managed fine turfgrass in the presence of heavy earthworm populations. In most crop systems, earthworms are considered beneficial organisms since they aerate the soil, bust thatch layers, decompose organic matter and eject nutrient-rich fecal matter (“casts”) to the surface when tunneling. However, the casts can be the bane of many turfgrass managers’ existence — they muddy the surface, damage mower reels and cause general thinning of the turf. Damage can be especially severe in spring and fall in areas where turf is grown on native soils. Managing these invasive organisms is made difficult by the lack of control options and earthworms’ ability to quickly reproduce.

Unfortunately, there are no pesticides registered in the United States and Canada for controlling earthworms. Some superintendents seek to indirectly reduce castings when targeting other pests by selecting pesticides that negatively affect earthworms. The fungicide thiophanate-methyl (e.g., Cleary’s 3336) and the insecticide carbaryl (e.g., Sevin) are most commonly used in this manner.

Several studies have investigated the effects of cultural practices on reducing castings in turfgrass settings. Generally, earthworms prefer moist, cool conditions, with near-neutral pH. Frequent sand topdressing, removing clippings and applying acidifying fertilizers have been investigated in several university studies. Sand topdressing has produced the most promising results of the three, although soil modification requires frequent or consistent applications and is cost prohibitive to many operations to perform on large areas.

**Saponin-based fertilizers**

Turfgrass managers have recently turned to using saponin-based fertilizers to culturally control earthworm populations. Saponins are naturally occurring compounds found in a wide variety of plant species. Materials possessing saponins readily form a soapy foam when added to water and shaken. Applying saponin-based materials to soils after rain or irrigation expels earthworms from the soil, causing them to desiccate and die.

Using saponins to control earthworms is not a new idea, as it was once a popular means of suppressing casts on putting surfaces in the United Kingdom in the early 1900s. The proliferation of golf courses in the interior of the U.K. began with the expansion of the British railway system. Courses moved from traditional “links” land with sandy soils to areas with heavy soils or greater percentages of fines. These soils were dominated by earthworms, and managing them on greens was a challenge. An ingenious superintendent named Peter Lees was the first to concoct his own saponin product (ground mowrah meal) to control earthworms.
and apply it to his putting surfaces. Sap- 
onins replaced harsh mercury-based 
products and were regularly used for 
several decades. 

Control with saponins fell out of 
favor, however, in the 1950s when many 
chemical pesticides became publicly 
available. Many of these pesticides, 
including DDT and chlordane, were 
broad-spectrum in activity, and it is re-
ported that they provided earthworm 
suppression for several years! It was not 
until after these products were phased 
out that earthworm populations re-
bounded in many turfgrass sites and 
alternatives were sought.

The first modern saponin-fertilizer 
product (Early Bird by Ocean Organ-
ics) was developed in the mid-2000s. 
Early Bird, a by-product of tea manu-
facturing, has been shown to effectively 
expel earthworms from the soil and re-
duce castings over several weeks. Re-
cently, another saponin-based fertilizer, 
RhizoAide (Grigg Brothers, owned by 
Brandt Consolidated) has come onto 
the market and is available for use in 
turf. Our laboratory has been assess-
ing the efficacy of these products and 
attempting to find optimal field rates.

Our research
Earthworms are especially challeng-
ing to control due to their biology. 
They are hermaphrodites (possessing 
both male and female sexual organs), 
although they require a mate to pro-
duce eggs. Eggs are deposited in pearl-
shaped capsules or “cocoons” through-
out the year. This stage is relatively 
impervious to chemical or saponin 
control. Therefore, applying a short-
residual product may kill only adults 
and juveniles but leave a portion of 
the population unaffected.

We have observed how popula-
tions are able to rebound quickly even 
with effective products. In 2015, sin-
gle applications of RhizoAide (4, 6 or 
8 lbs./1,000 ft²) were compared to the 
granular formulation of Early Bird (6 
lbs./1,000 ft²). All rates and products 
provided ~ 70% or higher control 
compared to the untreated checks 7 
days after treatment (DAT). Two rates 
of RhizoAide provided 50% control of 
castings after 21 DAT, which suggests 
limited residual activity.

In spring 2016, we sought to de-
termine if sequential applications of 
RhizoAide could provide more lasting 
 suppression. RhizoAide (4 or 6 lbs./ 
1,000 ft²) was applied monthly to plots 
on a golf course fairway in either 2 or 3 
sequential applications. All treatments 
produced strong statistical differences 
by 28 DAT. Treatments receiving 6 lbs./ 1,000 ft² reduced castings by 49% to 
70% (average 61%), which was similar 
to Early Bird (60% reductions). After 
the second month, castings in the 6 + 
6 lbs./1,000 ft² RhizoAide treatments 
had been further reduced (80%), al-
though this was not significantly differ-
ent from treatments receiving 6 + 4 lbs. 
/1,000 ft². The single application of 
Early Bird at 0 DAT provided 80% cast 
reductions at 55 DAT.

Finally, by the end of the trial (90 
DAT), three applications of RhizoAide 
at 6 lbs./1,000 ft² provided the great-
est numerical reductions compared to 
the controls (90%). No differences 
were detected between the Early Bird 
treatment (84%) and RhizoAide appli-
cations. RhizoAide applications that re-
ceived 6 lbs./1,000 ft² at the start of the 
trial had generally the highest numerical 
reductions (> 80% control).

Although more testing is needed, it 
appears that the first application’s rate 
may be the most important in “cull-
ing” reproducing adults. It is possible 
that rates of subsequent applications 
may be reduced to clean up the newly 
formed adults that were not initially 
controlled when in the juvenile state or 
were present in cocoons at the time of 
first application.

Summary
Controlling earthworms, much like in-
ssects, requires a thorough understand-
ing of their behavior and biology. We 
will continue to look for solutions for 
turfgrass managers. Currently, we are 
conducting trials to determine if late 
fall applications provide greater control 
of populations than with the traditional 
spring applications.
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Below, seasoned sports field managers discuss the hiring process, what they are looking for in job candidates and how you can make a winning impression.

Advertising the job
Most job announcements are posted to industry websites (STMA, Teamwork Online and TurfNet), social media, university websites and external job boards. Networking within the industry and relationships built within KAFMO also provide valuable resources when searching for candidates. Managers often reach out to members of KAFMO for recommendations or knowledge of candidates.

Sorting through applications
Candidates are required to submit a resumé, cover letter and references. Managers share the top four items they look for in those documents:
- Make sure all information is correct and that the letter and resume are free from errors in grammar, punctuation and spelling. Nothing gets you disqualified faster than when you send a cover letter addressed to another company.
- Keep the cover letter brief. Shawn Kister, Grounds Division Leader at Longwood Gardens, Inc., advises, “Make sure it is specific to the job you are applying for and that it does not read like a form letter. Do not repeat information that can be found on your resume. Do some research on the organization you are applying to, and let that knowledge show in your letter. This shows a high level of interest and personalizes your letter to set it apart from others.”
- Keep the resume to one page, and don’t get too fancy. The resumé should be a concise, yet informative reflection of the candidate’s work history. Include all relevant work experience pertaining to the job for which you are applying.
- Set yourself apart. CJ Lauer, Associate Director of Facilities at The Episcopal Academy, recommends, “Make sure that the few sheets of paper can somehow set you apart from the stacks of resumes that file in for a position. Be creative to get yourself known. On the cover letter, I like to see a quick glimpse into the personality of the candidate. I do not need a work history, as the resume will explain that. I would rather see an interesting part of their work history described or why the position is something they desire. Also, if it is sent electronically, maybe add photos of accomplishments in the field.”

The interview
Typically, the first point of contact is a phone or Skype interview to see if the candidate is a good fit. The in-person interview may be one on one, in front of a panel or both. A facility tour is usually included, along with meeting a human resources representative. Occasionally, a working interview will be required to measure how the candidate interacts with coworkers and approaches tasks.

Hiring managers shared some of the qualities that make a candidate stand out in an interview:
- Previous experience. Chris McCardell, President/Senior Sports Turf Manager at Windview Athletic Fields, shares, “If you have jobs listed on your resumé, be prepared to speak in-depth about each one and give examples of projects/tasks you performed.” Managers are gauging general turf knowledge and how previous experiences apply to the position. They also want to know what you liked and disliked about previous experiences.
- Personality. Enthusiasm is a key trait that managers are seeking. Managers want to learn what you find fulfilling in a job, how you work as part of a team and independently, and how you can contribute to making the organization better.
- Goals. Ryan Hills, Director, Field Operations for Lehigh Valley IronPigs,
will ask, “What are your goals? What goals have you set for yourself for the next five years, and how will you go about reaching those goals?” Managers also want to know what your expectations are for the position.

• Professional appearance. First impressions are crucial, and there are many jobs where expectations regarding appearance are very high. Wear a dress shirt, slacks, tie and a sport coat, and comparable attire for women. As Mike Boekholder, Director, Field Operations for the Philadelphia Phillies, puts it, “My theory is you can’t overdress. Dress for success!”

• Sell yourself. Managers want to know why they should choose you. Shawn Kister advises, “Do not shy away from a question that asks you to sell yourself; other candidates are being asked that same question and are selling themselves in their answers, so you need to also.”

Hiring managers also shared what you should avoid during an interview:

• Don’t be late. Do not plan to arrive “on time”; on time means early.

• Hiring managers agreed the most difficult part of an interview is if the candidate is not prepared. It is always good when a candidate wants to learn about the company culture and if the position is the right fit. Don’t be afraid to ask questions during an interview. It’s important to be well informed about any potential job. Ask purposeful questions, such as:
  ✓ Please provide a brief overview of the facility, operations and crew structure.
  ✓ What does a day look like in this position?
  ✓ What can I do to succeed in this position?
  ✓ What can I do to help or improve the organization?
  ✓ What are your performance expectations at the end of my first six months working in this position?
  ✓ What are the learning opportunities available?
  ✓ Please explain the salary, benefits and overtime.

• If you’re entering the professional sector, Mike Boekholder recommends, “Don’t be a ‘Super Fan.’ We are hiring for a job, not looking to bring someone on staff who is so infatuated with the team or the game that it would potentially be a problem for them performing their job duties.”

Post interview

Hiring managers expect a follow-up because it shows interest in the job. Some managers prefer phone or email, while others appreciate handwritten thank-you notes. In your note, restate your interest in the position and what you will bring to the organization.

Closing advice

When interviewing or starting a new position, CJ Lauer advises, “Keep an open mind. Expect to learn a lot, and respect the leadership of your supervisors. Always have a positive attitude. See everything as a new opportunity. Take initiative when it is needed. Do not be afraid to fail or make mistakes. It’s the best way to learn.”

Thank you to the following professionals for their contributions to the article: Mike Boekholder, Ryan Hills, Shawn Kister, CJ Lauer and Chris McCardell.

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Shady Maple Conf. Center
East Earl, PA

January 10–12
Mid-America Nursery Trade Show (MANTS)
Baltimore Convention Center
Baltimore, MD
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January 16–19
STMA Conference and Exhibition
Fort Worth, TX

January 25
Northeastern PA Turfgrass Conference and Trade Show
Woodlands Inn
Wilkes Barre, PA

February 3–8
Golf Industry Show
Henry B. Gonzalez Convention Center
San Antonio, TX

February 12–15
TPI International Education Conference & Field Day
(Turfgrass Producers Intl.)
Westin LA Paloma Resort
Tucson, AZ

February 16
22nd Annual KAFMO/PRPS Athletic Field Conference
Holiday Inn Harrisburg/Hershey
Harrisburg, PA

February 27–28
Western Pennsylvania Turf, Ornamental and Landscape Conference and Trade Show
Doubletree by Hilton Hotel, Pittsburgh Cranberry
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