

**Integrated Pest Management (IPM)**



**Turf Management  
Using IPM Strategies**

Presented by:  
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**Agenda**



- Introduction
- My goal for today's session
- IPM Program Goal
- Proactive Strategies/ Tactics
- Thresholds
- IPM Management Levels
- Conclusion



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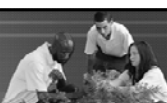
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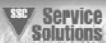
**Introduction**



- Core Competencies/ foundation of IPM – Texas AgriLife (Janet & team)

**IPM Protocols**

- IPM does not preclude the use of pesticides
- IPM is not an organic or biological control program
- IPM does not mean the mere presence of a pest justifies use of a pesticide
- IPM requires the turf manager to think and make sound decisions



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**My Goal**



Outline an approach to IPM for turf & ornamentals, but first...

- 1) The right stuff
- 2) Hello!
- 3) It's never the right stuff

***How do I manage this imperfect world creating a positive growing environment?***




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**IPM Program Goal**



Implement an IPM program for turf and ornamentals with the goal defined as:

- 1) Reduce or eliminate dependency on Pesticides
- 2) Be more sustainable in management practices
- 3) Manage pests economically using sound principles
- 4) Reduce human and environmental exposure to pesticides
- 5) Allow natural predators to build in population

Manage plants by reducing dependency on pesticides by establishing protocol for turfs, lawns, ornamentals and landscape based on Safety, aesthetic value, use within the landscape and surrounding environment.




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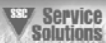
**The Goal**



***The Doctor is in!***

Healthy plants and humans are similar in strengthening immune systems:

- Same proactive strategies and tactics
- Maintenance - eat right, vitamin supplements, exercise, dress appropriately
- Stronger immune system/ reduced medication or pesticides




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### Proactive Strategies/Tactics

Outlined over the next few slides are important strategies, tactics or steps for managing healthy plants and developing/ implementing IPM

**Know your Environment**

- Map your campus(s)
- Climate – Historical data, current and forecast
- Soil – history of soils and sub soils
- Neighboring environment



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### Proper Identification

**Vegetation**

- Turf
- Trees
- Shrubs
- Perennials/ ornamental grasses
- Ground covers

**Pests**

- Weeds
- Insects
- Diseases
- Nuisance/ warm blooded



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### Resources

It is important to stay up to date with the latest in the field, here are just a few manuals I read almost daily to keep current with the latest IPM Methods:



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Slide 9

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F4 Is the picture necessary??  
FerguP01, 11/7/2011

**On-Line Resources**



<http://aggieturf.tamu.edu/answers4you/index.htm>  
<http://www.commodities.caes.uga.edu/turfgrass/georgiaturf/PestMngt/index.html>  
<http://www.ipm.ucdavis.edu/PMG/selectnewpest.turfgrass.html>  
[http://aggie-horticulture.tamu.edu/lawn\\_garden/pest.html](http://aggie-horticulture.tamu.edu/lawn_garden/pest.html)  
<http://ipm.ifas.ufl.edu/resources/projects/landscaping.shtml>  
[http://www.ipminstitute.org/school\\_biblio\\_grounds.htm#LandscapePlantCultural](http://www.ipminstitute.org/school_biblio_grounds.htm#LandscapePlantCultural)



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**Biotic & Abiotic**



- Events - Biotic
- Labor - Biotic
- Equipment - Abiotic
- Financial - Abiotic
- # 1 Biotic Disease on fields – REWARD for Correct Answer



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**Cultural Proactive Strategy - Tactics**



- Soil – texture, pH, drainage, porosity, CEC, WHC, Nutrients
- Aeration – Frequency, type, depth
- Irrigation – how much, how often, how deep, quality
- Mowing – type of mower, frequency of cut, height, clippings
- Fertilization – how much, how often, WSN/ WISN, Macro/ Micro



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**Cultural Proactive Strategy - Tactics**



- Fertilization – how much, how often, WSN/ WISN, Macro/ Micro
- Thatch – How much is too much, too little
- Top Dressing – ties back to soil, finance, and goals
- Overseeding – weed preventative?



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**Thresholds**



**Acceptable Thresholds**

- Economic
- Aesthetic
- Safety
- Paradigm Shift



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**Thresholds**



**Acceptable Thresholds**

- Weeds
- Insects
- Disease
- Human



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**IPM Management**

**Weed Management**

- Low, Medium, High

**Insect Management**

- Low, Medium, High

**Disease Management**

- Low, Medium, High




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**In Conclusion**

None of us are Carl Spackler – we must demonstrate professionalism at all times and always remember:

- IPM is a reasonable management strategy/ tactic
- IPM does not require more pesticide use
- IPM does not require a degree
- IPM does not require specialty equipment
- IPM does not require additional staffing
- IPM does not require enhanced budgeting
- IPM does require good planning
- IPM does require scouting/ prognostication
- IPM does require diligence on your part as a manager





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**George G. Bernardon's Bio**

George G. Bernardon, Regional VP of Grounds Management, SSC Service Solutions a member of the Compass Group, which is the world's largest facilities management group in the world with over 25 billion in annual sales.

Many years in the greens industry starting as a teen starting in a commercial production nursery, moving to commercial and high end residential landscape construction/ installation, then to Grounds Management at Marriott World Headquarters for seven years, then to facilities management. For over 20 years has held various titles but responsible for developing and implementing/ overseeing grounds, landscape and athletic field management for educational and commercial institutions throughout the US and Puerto Rico.

Education, AA in ornamental Horticulture (graduating with highest honors), BA and MS in Management.

Certifications; Certified Sports Field Manager, Certified Turfgrass Professional, Certified Horticulturist, Certified Landscape Professional, Certified Playground Safety Inspector, Integrated Pest Management Coordinator (turf and ornamentals) and Accredited Professional "Rainwater Harvesting".




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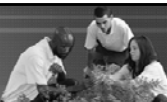
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**About SSC**




For quality-focused Educational Institutions, SSC Service Solutions is the premium provider of cleaning and facilities services. Headquartered in Knoxville, TN, SSC Service Solutions currently serves more than 80 accounts nationwide, exclusively in the Higher Education and K-12 market. With over 40 years of industry experience and highly trained skilled professionals, SSC Service Solutions is the choice for all of your support service needs. SSC provides the highest standard of customer service and measurable, consistent quality. We work our clients to create a flexible, customizable, and cost-effective approach that meets your goals and fits your budget.

- Custodial & School Services
- Plant Operations & Maintenance
- Grounds Management

Everything we do is focused on creating an ideal environment for learning. This is what we mean by "sustaining a learning environment," which reflects our service objectives for the facilities we maintain as well as our commitment to developing our associates through continuing education. Boasting a 95% customer account retention rate, we have earned our reputation by delivering high-quality facilities management programs consistently, while remaining flexible to meet the needs of a diverse customer base.

In October of 2011, SSC announced the completion of requirements for the Cleaning Industry Management Standard ("CIMS") certification program on September 27, 2011. Awarded by ISSA, the worldwide cleaning industry association, SSC also received the distinction of certification with Honors. This means that the programs, systems and repeatable procedures that are standard with our services are certified to be of the highest quality.

SSC is fortunate to be a member of Compass Group North America, a truly impressive organization reporting £14.5 billion (\$23 billion) in revenues. As of 2009, according to the Global Fortune 500, Compass is the 17th largest employer. Because of this partnership, we can leverage the resources and support that our \$23 billion organization has to offer. This partnership allows SSC to offer you the peace of mind in knowing that we have the resources to complete the promises made to you and your employees during critical operations.



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