



MGG Lawn & Land Forum Webinar – June 3rd, 2019

Building Capacity

Executive Summary

Mission of Forum: To document, summarize, and improve the state of Integrated Pest Management (IPM) and Natural Lawn Care (NLC) policies and practices locally, regionally, and nationally.

Working definition of IPM used by forum: An environmentally sensitive and cost-effective approach to pest and weed management that consolidates all available necessary techniques into a sequential program to keep pest populations at acceptable levels and to avoid adverse effects. An IPM program will utilize physical, cultural, mechanical, structural, and biological controls before resorting to chemical controls.

Session topic: This session took an in-depth look at the natural lawn care program adopted by the Park Ridge-Niles School District 64 to eliminate chemical fertilizers and pesticides from their green space. Members from the citizen action group Go Green Park Ridge spoke about the development of their natural lawn care (NLC) program, the many meetings held with the District 64 staff and board, the recommendations offered and the ultimate actions taken by District 64. The school chose to adopt a process-based, rather than a product-based, approach to managing their grounds and turfgrass fields.

Panelists:

1. *Amy Bartucci* – Bartucci founded [Go Green Park Ridge](#), a grassroots citizen action group in 2012 that encourages Park Ridge residents, businesses, and institutions to utilize resources to live and operate in a more sustainable manor. Go Green Park Ridge is part of a larger consortium of advocacy groups in the Chicagoland area called Go Green Illinois. The group meets monthly and in 2013, began to focus on natural lawn care (NLC) and pesticide reduction. As of 2017, Park Ridge claims 20 NLC parks.
2. *Shannon Donley* – Donley is a parent and a member of Go Green Park Ridge. She has an environmental and science background and she advocated for, outreached about, and advised the community about pesticide and herbicide use prior to District 64's implementation of an NLC program. Shannon petitioned the School Board to adopt an NLC policy, which was fully implemented in 2019.
3. *Ryan Anderson*- Community IPM Outreach Specialist, IPM Institute of North America, Inc.- Ryan leads and implements the Midwest Grows Green natural lawn care initiative and supports other community IPM projects. A 2016 National Academies of Sciences, Engineering, and Medicine Christine Mirzayan Science & Technology Fellow, Ryan has extensive experience advancing



science-based solutions in urban and residential communities. Ryan has a Masters of Sustainable Solutions from Arizona State University and holds a dual bachelor's degree in Biology and Electronic Journalism from Butler University. In his free time, he enjoys hiking, playing sports, and reading the next iconic fantasy novel series.

Summary of panelist presentations and discussions

Implementing a natural lawn care program for Park-Ridge Niles School District 64 required patience and a solution-oriented approach to engagement. After Park Ridge Park District adopted NLC practices in 2015, the citizen action group Go Green Park Ridge identified an opportunity to translate this success to District 64. Go Green sent multiple letters and emails to District 64 that identified simple, necessary steps to move towards NLC. These messages helped set up a meeting between Go Green Park Ridge, School District 64 administration and representatives from the contracted lawn care provider to discuss initial adjustments to the current lawn care contract.

To ensure continued progress on the issue, Go Green and panelist Shannon Donley started a petition on Change.org that requested three clear steps for District 64 to take: (1) The immediate elimination of pesticides with the [EPA signal words](#) "DANGER" and "WARNING" on their labels, (2) the adoption of a comprehensive NLC and IPM Policy and (3) the creation of an open bid for qualified natural lawn care contractors for 2019. Thanks to receiving 268 signatures in a week, the petition successfully encouraged the school board to remove chemicals with the signal words "DANGER" and "WARNING" and shift to organic fertilization. Finally, District 64 put plans together to manage all properties in-house and with no synthetic pesticide.

After these new policy and program changes, Midwest Grows Green (MGG) provided technical resources via a workplan to support District 64 with NLC management. The workplan incorporates three main steps of (1) prioritizing fields based on foot traffic and visibility, (2) increasing cultural controls on all fields and grounds and (3) using data points to avoid unnecessary fertilizer and herbicide applications. MGG estimates that the cost differences between District 64's new NLC program and original conventional program will break even in year three or four despite the NLC program requiring significant investment in new equipment. The costs for NLC versus conventional lawn care will differ depending on community expectations, a district's inventory of mowing, aeration and overseeding equipment, staff NLC knowledge within the district, availability of organic fertilizer or compost sources and more.

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Topics of discussion brought up by panelists

Motivations for Moving towards NLC

Bartucci:

- Go Green Park Ridge started in 2012 and voted for natural lawn care as its first initiative.
 - Realized that everyone from children, pets and adults could see and touch grass.
- Work started with the Park Ridge Park District.
 - Engaging the park district took time, but things started to move in the right direction and quicker after the park district committed to a [Pesticide-Free Park, Maine Park, in 2015](#).
 - The park district hired and trained new NLC staff in 2016 and committed to NLC management of 20 parks in 2017.
- Success with the park district allowed Go Green Park Ridge to discuss NLC with the school district.

Anderson:

- Anderson believed District 64 moved forward with NLC for three reasons:
 - The ability of Go Green Park Ridge to offer solutions to the current lawn care contract as opposed to solely complaining that the use of conventional products was “bad”.
 - The presence of the Park Ridge Park District in the community, which already experimented with NLC and experienced success. Both District 64 maintenance staff received NLC training from the Park District.
 - Finally, the environmental and health risks mitigated

Engaging with School District 64

Bartucci:

- Go Green Park Ridge sent certified letters and emails to District 64 decision makers, including the Director of Facility Management, Chief School Business Officer (CSBO), Superintendent and the Board of Education
- The letters enabled an initial meeting between Go Green, the conventional lawn care provider and District 64 leaders in January 2016. Pesticide reduction was at the forefront of the agenda.
 - Despite having a similar goal to meetings with the park district, the meetings went different since the school district contracted all services to an outside provider. The park district managed all properties in-house.
 - All parties agreed to only spot treat weeds, rather than broadcast spray
 - Go Green Park Ridge felt the need to continue engaging the school district on the issue, since the district still applied a weed and feed product. This resulted in the petition that Donley explained.
- The community came to understand the need of NLC and justified the upfront cost.
 - Future steps such as the walk-through of grounds with Midwest Grows Green increased collaboration and community understanding of the process-based approach to be implemented.
 - Eventually, the school board voted 5-2 in favor of purchasing the equipment to manage “in-house”.
- To motivate your community to adopt NLC programs, Bartucci suggests the following:
 - Pay attention to local politics- Attend board meetings, encourage neighbors to attend and keep them informed of decisions.

- Be participating citizens and an aware electorate- Participate in webinars and educational opportunities available to you (e.g. [MGG Forum Webinars](#)), table at community events, etc.
- Support and endorse school board candidates who align with your values

Donley:

- Go Green decided that a petition led by a concerned parent as opposed to Go Green would be less confrontational and more representative of the community's interest.
 - Donley sent a "feeler" email to a couple of District 64 parents to gauge interest. She decided to move forward with the petition after receiving positive feedback.
- The petition on [Change.org](#) asked District 64 to adopt a natural lawn care program and offered three simple and specific actions for the District to undertake:
 - Immediately removing pesticides with the [EPA label signal words](#) DANGER and WARNING
 - DANGER and WARNING labels indicates the highest acute toxicity. CAUTION represents the lowest acute toxicity
 - At the time, District 64's lawn care contractor used two different products, one labeled DANGER and one WARNING.
 - Adopt a comprehensive NLC and IPM policy.
 - Create a request for qualification for NLC providers and generate an open bid for a 2019 natural lawn care contract.
- The petition received more than 200 signatures in the week leading up to submission to the Board. This accomplishment increased motivation for District 64 to enact the following:
 - Removal of pesticides with high toxicity (DANGER & WARNING) from inventory.
 - Switch to all organic fertilizers.
 - Start looking into purchasing or sharing equipment to manage turf in-house in the future.
- Thought 200 petition signatures make up a small portion of the 37,000 population of Park Ridge, Donley and Go Green thought the petition adequately made its point by not aggressively pushing the petition (i.e. going door to door) and by receiving those signatures in a short period of time.
 - Every signatory either lived in Park Ridge or had a strong connection with Park Ridge (i.e. Kids played in the park, grandparents, etc.)

Steps for Implementation

Anderson:

- Park Ridge-Niles will follow a workplan developed by [Midwest Grows Green](#) (MGG) for school and park districts. This workplan will be available for \$25 on MGG's website in the near future.
- The workplan has three main components/steps:
 1. MGG, Go Green Park Ridge and District 64 staff walked the grounds of one school, Washington School, to prioritize the fields based on their visibility, foot traffic and importance
 - Category 1: The most highly visible and trafficked fields (i.e. entrances and athletic fields)
 - Category 2: Fields which are relatively visible but receive less foot traffic than category 1 fields.
 - Category 3: Fields which receive very little foot traffic or visibility

2. The workplan increased cultural controls on all properties to create deep roots that allow air, nutrients and water to enter and leave the soil profile. The workplan tailors cultural management based on the categorization of the field:
 - Category 1: Mow at least once per week between 2 ½ and 3 ½ inches. Aerate at least twice per year, late spring and early fall. Overseed after the fall aeration.
 - Category 2 and 3: Try to follow category 1 cultural management if possible. If costs too high, focus on cultural management in the fall. Only mowing might be necessary for category 3 fields.
3. Finally, the workplan avoids unnecessary, preventative fertilization and weed control applications by referring to data points. Curative fertilization and weed control as opposed to preventative
 - For fertilization, the workplan recommends soil tests to determine the amount and type of organic fertilizer to apply
 - If unable to obtain a soil test, then MGG recommends using the table on the third page of this University of Vermont resource.
 - Category 1 fields= high turf traffic, Category 2= moderate, Category 3= minimum
 - District 64 did not follow the table, because they plan to apply biosolids provided by the Metropolitan Water Reclamation District of Greater Chicago for free once in the summer.
 - Biosolids are not approved by the Organic Materials Review Institute, so these fields are not managed “organically”.
 - For weed control, the workplan uses weed tolerance thresholds/weed density to determine whether control is necessary:
 - Category 1 fields will not control for weeds unless density exceeds 15% per a designated area.
 - Category 2: 30% tolerance
 - Category 3: 50%, avoiding weed control except with invasive species
 - MGG recommends either using an organic (Selective- Fiesta & A.D.I.O.S., Non-Selective- Final San, Phydura, Avenger, Burnout, Mirimichi Green) or reduced risk product (Quicksilver, Tenacity, Lockup) for when weed control is warranted.

Cost Comparison

Anderson:

- Costs vary by organization and community due to many factors including expertise of staff, equipment inventory, location of compost/fertilizer source, community perceptions and values, etc.
- Park Ridge-Niles School District 64 required significant upfront costs for equipment purchases
 - Toolcat Utility Work Machine- \$64,000
 - Toolcat attachment aerator and spreader- \$15,000 together
 - Groundsmaster 4000-D Mower- \$52,209 (replaced old equipment, would have been purchased by D64 regardless)

- Staff costs for District 64, however, did not differ between conventional and natural lawn care, because the two incoming NLC staff replaced two retiring staff. These new staff had previous experience with NLC implementation as they were hired from the Park Ridge Park District and did not need additional training.
 - The new staff attended multiple past NLC training, including six MGG Forum session.
- MGG predicts that aggregated costs for NLC vs conventional management at District 64 will level between year three and year four. The projection assumes the following:
 - That District 64 will not hire new staff in addition to the two staff hired.
 - That District 64 would have purchased the Groundsmaster 4000-D mower regardless of NLC or conventional lawn care management to keep equipment up-to-date.
 - That increasing cultural controls will decrease the need for fertilizer and pesticides. Already, District 64 lowers their fertilizer costs by receiving [free biosolids](#) from the MWRD. MGG allocated \$5,000 per year for the purchasing of natural/reduced-risk weed control and organic fertilizers.
 - That annual costs would remain the same if District 64 decided to renew its contract with the conventional lawn care provider, which costed \$26,000 in 2018. This contract had higher than normal costs due to spot-spraying weeds and fertilizing with only organic products. However, these services fulfilled the bare minimum expectations for the Park Ridge community and would likely continue in future years.
- District 64's \$130,000 investment in the NLC program, while high, is not out of the ordinary for a school or park district
 - Many districts have invested in synthetic turf fields that cost around \$850,000 at the low-end and require about \$7,000 per year to upkeep.
 - The NLC program offered better cost benefits for District 64 compared to synthetic.

IPM issues briefly covered and to address in future sessions

Do the high schools, that have higher expectations, implement a NLC program

Bartucci:

- The high school district, District 207, has held meetings with Go Green Park Ridge, but does not implement as comprehensive of a NLC program as District 64 or the park district due to constraints.

Recommendations for getting an NLC program started

Anderson:

- Start with a pilot project, one or a couple of [Pesticide-Free Parks](#), to demonstrate that a process-based, rather than a product-based program works to turf managers.

Bartucci:

- In a school setting, we should keep our focus on helping children who are the [most vulnerable to the effects of pesticides](#). Emphasize the [precautionary principle](#).
- Be willing to have the difficult conversations: Do we really need a weed free lawn?

Donley

- Donley would encourage advocates and actors from communities that have already implemented these practices to readily share their experiences and knowledge with other communities (i.e. peer-to-peer)