

Pesticide Advisory Committee - Golf Subcommittee
Final Recommendations 3/25/19

Committee Members: Jack, Vera, Christy, Luna, Russ

Management Strategies:

1. Reduce/limit the size of parkland used for golf courses:
 - Reduced use of land for golf courses would result in less 'need' for chemical inputs, as other land uses do not need to be maintained via industrial chemicals
 - a few of the golf courses in Minneapolis were built on wetlands, they flood on an annual basis; instead of restoring the flooded area each year w/herbicide – let flooded areas stay flooded, and plan native plants around that
 - areas are treated with glyphosate after flooding, to remove weeds prior to reseeded with turf.
 - Let wet areas stay wet (as part of reducing size and quantities of golf courses); discontinue active water removal from wet areas.
 - Retrofit golf courses for other uses – e.g., higher visibility natural areas, dog parks, or just golf with reduced/eliminated pesticide use and see if it works.
2. Pilot pesticide free alternatives for some of the golf courses, and monitor the outcome
 - If we manage it in a pesticide-free framework, will people still want to play on it?
 - Have a survey with educational components– if people know there are no chemicals, do they appreciate the tradeoff even if the course is not as “pretty”?
 - Create a multiple use, example as a model for turning into sustainable area, and monitor the results of user attitudes, park use, environmental benefits, etc.
 - Taking areas and using them as a scientific experiment and seeing if it's economically viable.
 - Develop pesticide-free certification for golf course employees. *Minneapolis Golf Courses could become the first in the nation to be ***“pesticide-free certified” ***; could be a great marketing opportunity.
3. Prescription use of pesticides – as used in Canada
 - Can some golf courses manage with only prescriptive use of pesticides? No cosmetic use of pesticides allowed.
 - Prescriptive use would be governed by a board, to which an area must apply for each specific use; board can wither approve or deny pesticide applications.
4. Education of park users about management changes
 - Emphasize benefits to birds, as this an endpoint many park patrons care about - if we keep killing insects with pesticides, we reduce birds. Impacts to birds are important to include as 'canaries in the mine'.
 - Add more noticeable signage when pesticides are applied so community members are aware of usage.
 - Post pesticide use alerts on MPRB website.

5. Consult with all-natural turf growers and experts.
 - Chip Osborne is a potential resource - cultures microbial population to encourage turf grass (cultivate health of the soil, as opposed to trapped in a cycle of poor soil health caused by glyphosate, resulting in higher glyphosate use.
 - Other organizations that could consult with MPRB include Natural Grass Advisory Group, IPM Institute and Beyond Pesticides.
 - We could pilot golf courses try- increasing soil fertility and soil nutrients and see if that helps reduce weed growth. Soil fertility issues might fix the fungicide issue (which is a different pesticide than glyphosate, but useful to keep in mind for continued work of the committee.
 - Workshops for staff – additional training and opportunity/cross collaboration with other managers using pesticide free approaches; changing imaginations around what’s possible.

6. Environmental Impact Quotient (EIQ)
 - the basic gist of EIQ is that you still use pesticides, but ostensibly you use “less toxic” or “less hazardous” chemicals (that are supposed to pose lesser risks to “non target” organisms such as people and dogs), even if they cost more. MPRB should look at Pollinators as a non-target organism in pesticide use.
 - This is an exploratory process, and the MPRB should consider partnering with the University to support developing an EIQ program.

7. Specific Use Areas
 - Fences and Signs
 - Vinegar, Steam, Flame, Hand Removal, Scuffle Hoe
 - Ag Lime
 - Vinegar, Steam, Flame, Hand Removal, Scuffle Hoe
 - Timing of weed removal- remove top of the plant during dry conditions, the plant has a harder time re-growing vegetative portion (takes longer).
 - Sidewalk Cracks
 - Vinegar, Steam, Flame, Hand Removal, Scuffle Hoe
 - Golf Course Trees
 - Let grass grow around trees
 - Line trimming grass, couple with careful mowing to avoid tree damage
 - Mulch and Hand pulling in some areas
 - Native plant buffer around trees with subsurface barrier
 - Hosta buffer around trees
 - Sand Bunker Edges (grass on sand)
 - Vinegar, Steam, Flame, Hand Removal, Scuffle Hoe
 - Golf Course Renovations
 - Solarization or smothering with cardboard
 - Sod Cutting Machine
 - Consult with natural turf experts to decrease the need for renovations