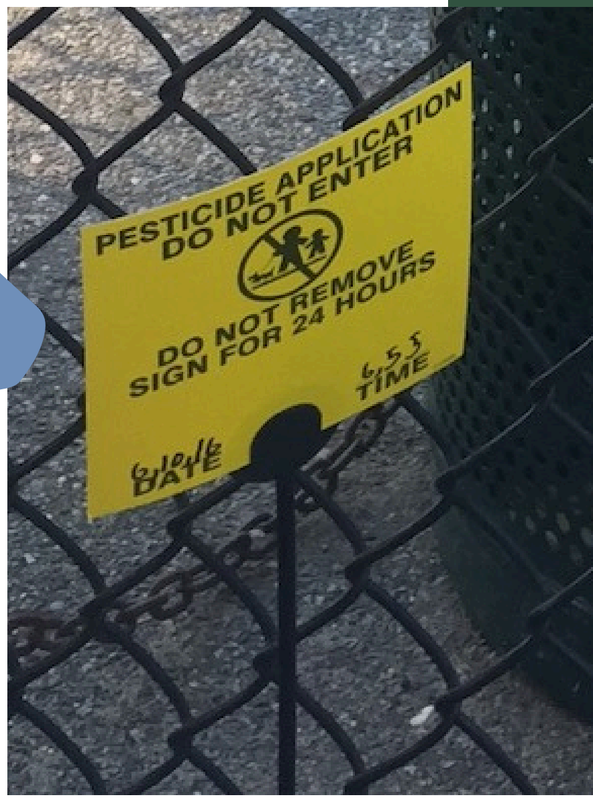
Image: St. Paul’s Fields, Google Maps

Garden City Safe & Healthy Fields Initiative

November 13, 2024

History of initiative

2016



Pathway to Approval 2016 - 2018

- Presented “Save & Healthy Fields Iniatitive” at each of the four POAS
- Met with Parks and Recreation Board
- Presented to EAB
- Presented to BOT

Safe & Healthy Fields Initiative for Garden City

Eliminating Pesticide Use on Village Fields & Playgrounds

We are calling on our community leaders to address the known severe health concerns related to pesticide use and voluntarily adopt the NYS schools standards for our Garden City Village fields & playgrounds.
It is our obligation as an educated community to look at the research and make an informed commitment to protect our young athletes, families, employees and our entire community from the known dangers pesticides impart.

Garden City should act swiftly and voluntarily adopt NYS School and Daycare Safe Field Standards

In 2010 NYS passed the “Safe Playing Fields” Law under amendments to the State Education Law (Section 409-k) and Social Services Law (Section 390-g) no school or day care center can apply pesticides to any playgrounds, turf, or athletic or playing fields.

- This regulation is due to overwhelming scientific evidence linking pesticides to adverse health conditions including asthma, autism, learning disabilities, Parkinson’s and Alzheimer’s diseases, and over 25 different types of cancer including Leukemia, Breast Cancer, Lung Cancer, Lymphoma, Pancreatic Cancer and Prostate Cancer.
- While the “Safe Playing Fields” law does not regulate the Village fields, the NYS school and daycare restrictions remind us that it is significant to consider the risks of pesticide applications in areas where children are present because they are at higher risk from chemical exposure than adults. Essentially, our children are protected from the harmful effects of pesticides at school, but not at play.
- Children’s bodies are more vulnerable to the toxic effects of many pesticides and other chemicals. Further, chemical lawn treatments can linger for many days before the weather and sun begin to dilute their potency, so our children are repeatedly breathing in and picking up pesticide residue on their skin, clothes, and shoes. Closing fields for 48 hours after pesticide application is inadequate to protect children’s health.
- Garden City ought to reconsider its landscaping practices and follow in the lead of over 115 other communities, like Greenwich, CT, which banned the use of pesticides on their athletic fields and playgrounds in 2008. Greenwich has successfully and safely maintained their grounds without pesticides for almost a decade.

Copy of informational brochure created to inform residents about the issues.

A quick reminder regarding prior field conditions

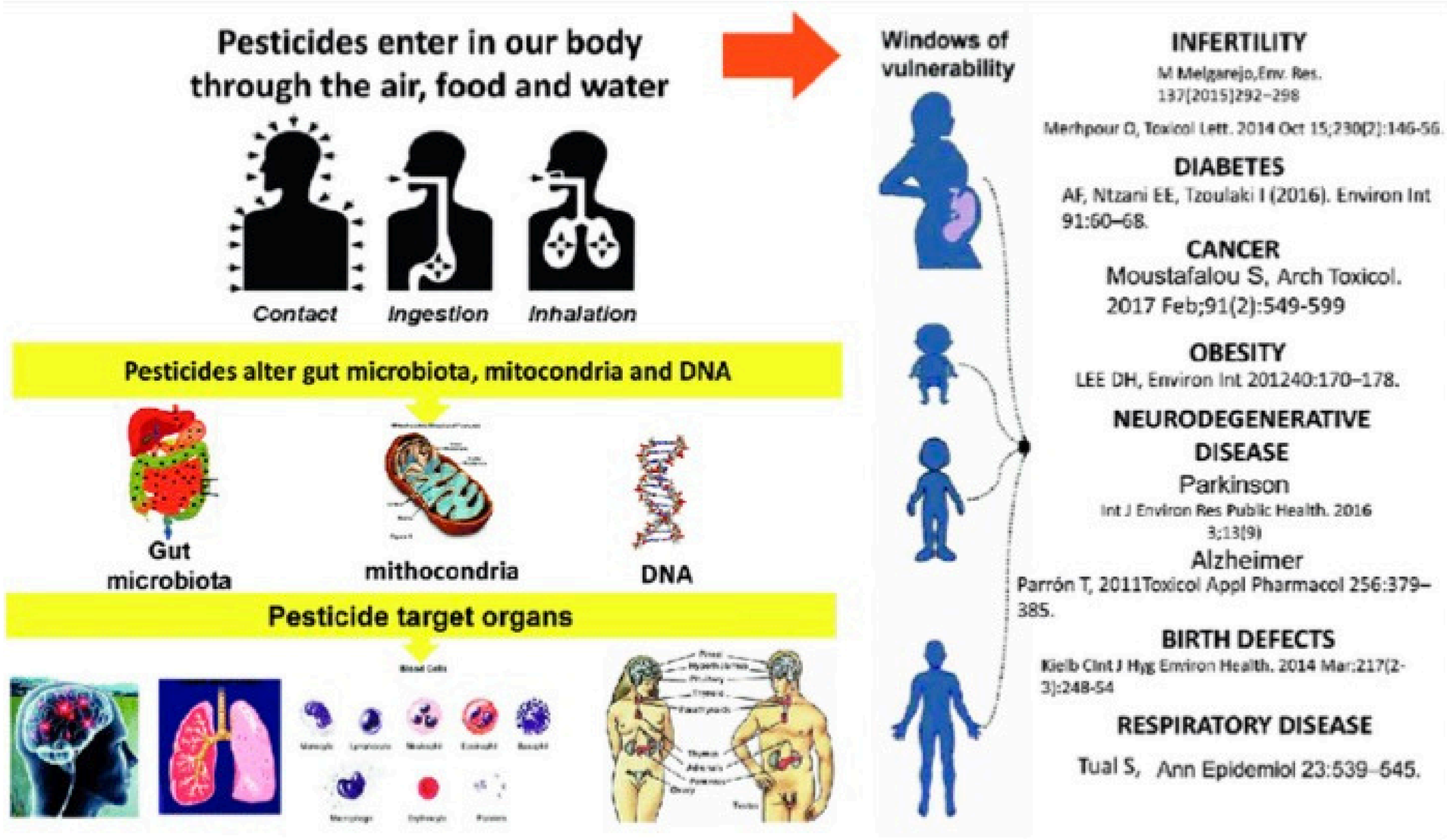
Tullamore Park

Personal photograph
June 10, 2016

Why eliminate pesticides, herbicides & fungicides?

Approximately 1/3 of the annual USA pesticide use, **over 300 million pounds from 85 different pesticides**, are from pesticides banned in the European Union.

The potential harms of pesticides



Nadia El-Hage Scialabba, Arizona State University

Children's Health and Pesticide Exposures

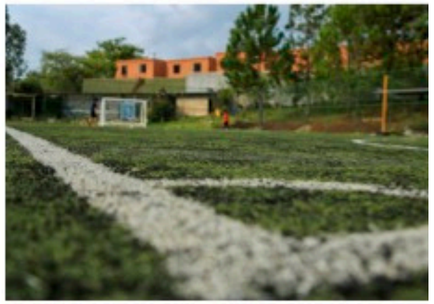
MSHS Environmental Medicine and Climate Science

Synthetic turf isn't an easy answer

Synthetic Turf is HAZARDOUS

I like to compare synthetic turf to a bad relationship . . . It gets dangerously hot, it's toxic to everyone around me, it's unsustainable . . . and it's really hard to get rid of." — Diana E. Conway, President, Safe Healthy Playing Fields, Inc.

What Is Artificial or Synthetic Turf?



Synthetic or artificial turf is a multi-layer plastic product used as a surface on athletic playing fields, playgrounds, golf courses, and residential lawns. It typically consists of:

- A top layer of fibers made from plastic: nylon, polypropylene, or polyethylene and designed to mimic the look of natural grass blades.
- Infill made from recycled tires ("crumb rubber") or alternative materials which remain untested and some of which have been found to contain PFAS
- A backing layer to which the blades are sewn.
- A drainage layer.
- Additional padding layers in some applications.

An average 80,000 sq ft. field contains 40,000 lbs of plastic carpeting and 400,000 lbs of infill. Fields average a 10 year lifespan and then need to be disposed of, which is either done via landfill or incineration, putting the surrounding community at risk for chemical exposure.

- **Toxic Chemicals**

  Synthetic turf fields have been shown to contain the following chemicals which pose a risk to human health:

  - Benzene: known human carcinogen
  - Arsenic: known human carcinogen
  - Styrene: anticipated to be a human carcinogen
  - Polycyclic aromatic hydrocarbons (PAHs): anticipated to be a human carcinogen
  - Zinc: neurotoxicant
  - Cadmium: known human carcinogen
  - Chromium: known human carcinogen; respiratory irritant
  - VOCs and SVOCs (e.g. benzathiazole, hexane, toluene, formaldehyde): respiratory irritants or asthma triggers
  - Neurotoxicants: some are known human carcinogens
  - Phthalates: reproductive toxicant
  - Crystalline Silica: known human carcinogen; respiratory irritant
  - Latex: allergen
  - Particulate matter: respiratory irritant or asthma trigger

Additionally, due synthetic turf fields being made of petrochemical products, they are highly flammable. As a result, many fields toxic contain flame- retardants. Many also contain antimicrobials following the higher incidence of methicillin-resistant Staphylococcus aureus (MRSA) infections from playing on synthetic turf fields.

Children are especially vulnerable to the effects of toxic chemicals because of their rapidly developing organ systems and immature detoxification systems. They also

Community Success

Adelphi University

An Organic Campus for Over 20 Years: The Secrets of Maintaining Adelphi's Green Campus Arboretum

April 19, 2022 • by Amy Wagner •

Sustainability (https://www.adelphi.edu/news/?filters[category]=sustainability#filter_results)

Adelphi's campus is a welcome oasis in the midst of suburban Garden City that embodies 19th-century naturalist Henry David Thoreau's edict that “We can never have enough of nature."

Success is possible, but takes time and fidelity to the Cornell Method

Cornell Sports Field Management

Spring and Fall Sports – High Resource Management

Printer-friendly calendar view [pdf file]

Management schedules are approximate "ideal" timing for specific practices. These timings will be adjusted based on weather conc soil type, and field use.

Spring use: March-mid-May

Summer recovery and rest: mid-May-July

Fall use: August-November

Mowing

Keep mower blades sharp to reduce turf injury and fuel usage.

March-November: Establish mowing height appropriate for particular sport. Increase mowing frequency to increase turf density.

Watering

Base irrigation on ET, soil moisture, overseeding, and field use.

April-May: Monitor rooting depth and moisture level in the root zone. Allow some moisture stress to encourage deep rooting.

June-August: Continue to monitor soil moisture level and supplement rainfall to meet ET irrigation requirement.

September-October: Maintain adequate soil moisture, but keep surface dry to maximize traffic tolerance.

Fertilizing

Amount of nitrogen per 1,000 sq. ft. Use soil test results for P & K recommendations

March: Follow NYS law and do not apply fertilizer before April 1. Check for more stringent regulations in your area.

April: After April 1, before the season starts and when turf greens up, apply ½ lb of a 50% water soluble nitrogen source.

May: Apply 1lb of 50% water soluble nitrogen source or 100% organic nitrogen source when overseeding.

August: Apply ½ lb of a 50% water soluble nitrogen source in mid-August.

September: Apply 1 lb of a 50% water soluble nitrogen source in mid-September.

October: Apply ½ lb of a 100% water soluble nitrogen source in mid-October

November: Fertilizer applications may be restricted, check local fertilizer laws.

Cultivating

Avoid cultivating when turf is under stress or soil is too dry or too wet.

March-May: Use solid tine cultivation during playing season to maintain infiltration of air and water. Focus on high-use areas.

June: Use hollow tine cultivation, break up cores and overseed.

August-October: Use solid tine cultivation during playing season to maintain infiltration of air and water. Focus on high-use areas.

November: Use hollow tine cultivation, break up cores and overseed.

Overseeding

Focus on high-traffic areas

March-May: Seed perennial rye at 2#/1,000 sq. ft. weekly in high-use areas.

June: Overseed if turf is thin after the season.

August: Overseed if turf is thin.

September-October: Seed perennial rye at 2#/1,000 sq. ft. weekly in high-use areas.

November: Dormant seed when soil temp at 1" is lower than 45 degrees F.

Topdressing

For leveling low spots, reducing thatch, improving seedbed.

March: Lightly roll high spots to level surface, improve footing and prevent mower scalping. Check field for low spots and fill in.

August: Lightly roll high spots to level surface, improve footing and prevent mower scalping. Check field for low spots and fill in.

November: Use hollow tine cultivation, break up cores to use as topdressing.

Pre-season tasks:

Attend educational programs

Review management notes from previous year to identify issues

The Garden City News

September 19, 2024

Report: Village fields thrive on organics

BY RIKKI MASSAND

Village Superintendent of Recreation and Parks Paul Blake updated the Garden City Environmental Advisory Board on September 18th about the improved conditions of the village's athletic fields, particularly at St. Paul's, following five years of non-chemical, all-organic treatment.

Organic field treatments

Garden City is in its fifth year of using organic treatments for athletic fields, and 2024 has shown significant improvements. The contractor, Alternative Earthcare, predicted visible results by the fifth year, and Blake reported positive outcomes, especially with the addition of all-natural, slow-release fertilizers. The village increased the number of organic applications on fields from four to six annually.

"Fertilizer which we've used to boost the nitrogen content of the soil is all-natural; certified safe for children and certified-safe for pets. We add that to our organic treatment as our organics are usually applied on Mondays, and on the following Friday or Monday we will add this on

See page 39

Garden City is on the right path

Steps forward include:

- articulating "success"
- monitoring progress toward goals

Thank you

Additional Resources

- Beyond Pesticides
- Cornell Sports Turf Management
- National Library of Medicine
- National Institute of Health