

Green Thoughts

Conversations and ideas about growing at The Spring Gardens

With more fits and starts than usual, spring is really here. We have had a brief, glorious array of

Flowers

daffodils, tulips, hyacinths, crocuses and other flowering spring delights. We couldn't resist taking photos and sprinkling this issue with dabs of

vivid color. Green Thoughts would normally start considering how we are doing with our various food

Sinking & Pb

crops. We'll hold off on that. We haven't really considered growing flowers of the



annual sort. One of our fellow gardeners, Marcia Connolly, does a splendid job growing and harvesting beautiful flowers all summer and she has agreed to let us in on what grows well right here between Wallace and North, 18th and 19th.

Marcia Connolly on Growing Flowers

With the sure knowledge born from experience, I know there will be an abundance of cheap or nearly free vegetables in summer. So I choose to use my 200 sq feet of Spring Garden paradise to grow flowers for cutting all summer long and into the fall.

Although the perennial flower is a lovely, reliable, but sequential and short-lived producer of color and texture, the annual flower uses its brief life to knock itself out producing bunches of flowers for its next generation all summer long and usually into autumn

I start the germination of zinnias and sunflowers seeds inside in March and April using heating pads that provide the warmth for germination and grow lights to assure growth of the stem and leaves. After the dicotyledon stage when the second set of leaves emerge the seedlings are nurtured with a very weak solution of sea kelp to encourage this vegetative state. As they mature they are potted up into larger grow cells to be hardened off outside for about 1 week before planting.

As zinnias are very easy to grow from seed, many gardeners start the seeds when the ground becomes warm but I am impatient to start my summer cutting and try to get a head start. Sunflowers benefit from starting

early as they are a very large annual that needs a sturdy stem to support the flower head.

The dahlia is another easy cut flower to grow. There are many types of dahlias (pompoms, collarette, ball, dinner plate , button, daisy, dinner plate) in a rainbow of colors, heights and patterns that delight for a full 3 to 4 months of cutting. Started when the ground becomes warm, the tuber is planted about 4 - 5" deep, staked and kept moist as the roots develop. As the greenery emerges and grows tall, secure to your stakes as the flower heads can get very heavy. At the end of the season, the tubers can be lifted and kept dormant over the winter to go another season. Although my success at doing this has been iffy, it's worth trying it out to save some money.

The Mexican sunflower is another super star in the garden. Named after the goddess Aurora's lover Tithonia, you can direct seed into your plot when the ground gets warm. It grows to a height of 4-5 feet with magnificent velvety electric orange flowers so best to plant it where it will not cast shade on your neighbors plot .When ready to cut, have your vase ready with water as the stems hate being deprived of water for even a moment. But don't get their leaves wet! Added bonus, they attract monarch butterflies!!

There is always a need for the filler flower in your bouquets so I rely on both the angelonia and snapdragons to fill that role. Notoriously difficult to grow from seed due to the very long germination and growing time, I buy these annuals to add the 18 to 24" height to my garden. Generally not

affected by mildew they both soldier on well into October.

As the summer gets more hot and humid, sunflowers, zinnias and dahlias are subject to mildew that can be devastating to the plant. As a deterrent, refrain from getting the leaves wet and water only at the soil level. Despite these housekeeping tips, mildew is pervasive in the garden once it gets started due to airborne movement of spores. I will be experimenting this year with OHN (Oriental Herb Nutrient) that is a natural solution of herbs from the Korean Farming Method [see Green Thoughts issue 4]. I have been brewing and distilling it for the last 2 months so wish me luck in my mildew war!!

My final word of advice is to keep your plants deadheaded!! Cut or pinch back spent blooms to keep your plants clean and in a constant state of blossom making. They will want to go into seed production mode if you don't remove the dead flowers. Don't be afraid to cut them back when the plants get leggy late in the season as they will come back and reward you with a fall showing if healthy.

And don't worry about not having veggies. Your fellow gardeners will want to share their squash, peppers and tomatoes with you in exchange for a nice little bouquet of summer flowers.



The Old Sinking Feeling In the last issue (#7) we noted areas of subsidence in The Spring Gardens. It was most obvious in the southeast part near the corner of Wallace and 18th. We traced sink holes and star adornments on brick buildings all the way from the Francisville Plateau south southwest to below Green Street. We suggested that there could be old subterranean stream beds along this course that occasionally carry water after a heavy rain and could erode the overlying soil and structures

Andy Biggin, a plot holder in the southeast corner wrote in: *Interesting - thanks for doing this. A couple things:*

1. On a personal level - I have a plot in the southeast corner. I have several hundred dollars of bulbs and perennials that would need to be dug up before a couple feet of soil was applied. I've moved over 100 wheel barrel loads of soil into my plot over the past 10 or so years. And yes, I still see subsidence a year or so following each top off - maybe partly explained by compaction, but not entirely.

2. I have a map of the Bush Hill Estate from 1814. The northwest corner of that estate is where our garden now is. Streets were all laid out back then even though no parcels within the blocks were laid out in that corner at this point. No notation of a stream either.

3. What explains the lack of subsidence in the Roberto Clemente playground between Wallace & Mt Vernon?

Thanks,

Andy

Andy's points are well taken. Most important, he has been getting subsidence for 10 years. Unfortunately there is no easy solution to stop it.

It is curious that unlike the Inquirer map, the Bush Hill Estate map does not show "Francis Creek." Maybe the cartographer was focusing on other streams in the area.

Finally, since we see significant sinking south of Roberto Clemente Park and north of it as well, why don't we see sinking in the park itself? Perhaps it depends on how recent the field was levelled. Also, the playground on the 18th St side of the park was rehabbed relatively recently. The only possible incipient sinkhole is just north of the Rec Center. It is paved there but each time it rains a puddle forms, the beginning of a cavity? It is not more than 60 feet south of the southeast corner of the Gardens...

Changes in real time. In the last issue we talked about the area around the Enon Baptist Church on 19th and Green streets. To the north and northeast there is a large parking lot that is sinking principally in two places. Even the fence on the north side of the new dog park isn't level. It dips down halfway along its path from the Church to the Waring School - as if water had channelled underneath the dog park. In leveling the dog park itself, they filled in the low spots. Presumably that filling could have led to inadvertent diversion of subterranean water after a rain.

Which leads to an observation in the last issue of Green Thoughts. "The Enon Church has differential settling on the north side of the church between the main building and the eastern annex"

Two weeks after that issue came out there was a partial collapse of the annex. (see right)

We consulted brother-in-law Len, Civil Engineer/P.E.

Ed,

If it sinks the underlying stuff is moving out or changing.

In old fills the stuff is probably degrading, mostly wood products that time and water have destroyed resulting in voids that then collapse.

Your notes make no mention of surface water collection and removal, so I assume the water seeps in. Even without underground channels, streams, or rivers the water moves under the hydraulic gradient present from different elevations. You definitely have it and underground water movement will probably carry some sediment, again creating voids and collapses. Too bad you cannot put radioactive tracers in the high spot and monitoring holes on the lower spot to track the water flow.

To stop the underground water movement you have to collect the water from the surface and direct it into a planned collection system (e.g. sewers). But environmentalists don't agree as you are concentrating collection, overloading treatment facilities, starving green area development. Its no-win, no-win.

I find it hard to believe the church did not see substantial water damage inside. There should have been mold growth seeping up the walls if water was around a long time and extensive enough to undermine the wall.

Moral of stories. Don't mess around with Mother Nature,

Len




North side of church with annex to left and main church to right. Note rectangular hole in the annex on the lower right side due to partial collapse. Below is a blow-up.



And still more. Marty Connolly wrote to Con Roche, who does work for The Spring Gardens:

To Con:

I thought you might find this interesting. It seems there is a creek running from Francisville Park down to the river that may be the source of

our ground sinking. 
Hope to see you soon when the ground dries out


Marcia

From: Con

Date: March 28, 2018 at 7:27:10 PM EDT

To: Marty

Subject: Re: Green Thoughts Issue 7

Ridge AV has an underground stream which catches the surrounding areas. Francisville park is up hill from ridge AV. I have Dug plenty holes on ridge AV which shows water at nine feet deep. I didn't see any water when I Dug the basement in the garden I was deeper than nine feet. I found rusted out appliances and decayed wood which used up the space until they deteriorated. That's my opinion and I am sticking to it. See you soon Con.

Green Thoughts wasn't arguing that there is a creek or stream down below. The notion is there is possibly one or several stream beds originating at the Francisville Plateau and running roughly south-southwest. Those beds can channel water after a rain. Con confirms that there is unlikely to be a stream there, meaning continuously flowing water...

Note from fellow gardener Barbara Gold

Ed: really interesting report [Issue 7 of Green Thoughts]. I live at 2039 Mt Vernon (since 1967). In about 1969, all the houses on the north side were told that we had never been connected to the city sewers (!!). We had to pay to be connected and the pipes, which had emptied into an underground stream running through our backyards, had to be changed to tilt toward the street (that is, to the south). Over the next few years, with less flow in the back, we developed a trench in the yard from collapse of the stream (or so we were told). Not sure if any of this is related, but it might be!

Barbara Gold

We are going a little afield, but Barbara's report is interesting and relevant. We walked south down 21st street from Fairmount and found stars on the following buildings (but not others nearby):

2042 Fairmount	2043 Green
2047 Wallace	2037 Green
2041 Mt Vernon	2061 Brandywine
2039 Mt Vernon	2049 Brandywine
2101 Green	2101/03 Sp Garden
2103 Green	2105/07/09 Sp Garden

If you plot these points on a map and connect the dots they trace out a south-southwest path parallel to the Francis Creek "streambed." We are tempted to call this one the Penitentiary Creek streambed.

More news about lead in the soil in the Spring Gardens Fellow gardener Pat Schuyler has expanded our knowledge of lead in various plots of The Spring Gardens. She took soil samples from four plots – 34B; 3C; 9B, and 27A. Resourceful person she is, she got the EPA regional office to do the assays. What follows is the report from Jack Kelly of the EPA.

Note: XRF is the technique X-Ray Fluorescence. A soil sample is bombarded with X-Rays. That causes light to be emitted (fluorescence) from the sample. Each element - lead, potassium, etc. has a characteristic color of its fluorescence. The brightness of the fluorescent color indicates the abundance of that element.

From Jack Kelly

I screened the soils last week with the XRF instrument.

Results for lead (Pb) in milligrams/kilogram or parts per million (ppm):

34B 2 -74, 77, 80

3C 1 -152, 144, 155

9B 2 - 125,122, 143

27A 2 - 86, 83, 74

I took three readings from each bag. The individual bag readings are remarkably consistent for Pb. More so than we usually see...

The values are much lower than we typically see for city soils and I have no concerns about growing vegetables in this soil.

Pat, you can call me if you wish to discuss. I could have a toxicologist participate with enough notice.

*Jack Kelly
On Scene Coordinator
EPA Region III, Philadelphia
215-514-6792 (cell)
215-814-3112 (office)*

Reassuring information! Thank you Pat.

From the Mail Bag regarding Issue 7

Very interesting !
Nicely put together.

Fud

Thank you for the time you spent on this project and for sending this out! What a fascinating read. I'm looking forward to seeing what develops as the years go by.

Best,
Emma

Fascinating!
Thanks,
Russ

This was fascinating! And I loved the Francis Crick reference.
Thanks for the edification. I never knew what the stars were for and thought they were just decorative.

Camille

Great issue, - fascinating stuff!

Mike



Please send your ideas, thoughts, suggestions
and observations to:

e.gruberg@temple.edu

that address can also be used for getting on the
mailing list for **Green Thoughts**, or getting off.

Prepared by Ed Gruberg

