

OHIO PEDOLOGIST

Professional Soil Scientists

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On Time and Change Detection – Bob Parkinson



What a difference one year makes. Last year brought record breaking rain -- shattering records for many places like Cleveland (65 in), Toledo (48 in), Columbus (55 in) and Cincinnati (73 in) -- affecting water tables, widespread blue-green algae blooms and mild, mostly snow-free winter. So far, this year has brought heat, drought, welcome relief from blue-green algae for many lakes, and damaging storms called derechos causing widespread power outages (mine was out for 7 days). I guess it just goes to show that over time things average out. So if you see wooly worms bundled up in their warmest down coats this year, be prepared!

This summer reminds me of the summer of 1988 working on the Ross County soil survey with Terry Lucht and Steve Hamilton – hot and dry. That summer we hosted the director of the soil survey program for Uganda for one month who was on a USAID-sponsored visit to OSU to see how soil surveys were conducted in the U.S. Mapping on the Scioto River floodplain with the Ugandan one hot sunny day, I still recall the stark contrast of tall corn growing on soils of the Gessie series versus the stunted corn growing on Stonelick soils.

For the summer of 2012, I've been working around several houses, fishing, reading and doing genealogy when not "polishing" my golf game or playing guitar. One real gem I stumbled upon was the Cincinnati Panorama of 1848. If you are a history buff, check out the images at: <http://1848.cincinnati.library.org/> or the digitally enhanced mosaic at: http://codex99.com/photography/images/river/river_panorama_lg.jpg.

Check out the soil slippage and erosion occurring on those hillslopes circa 1848. (Given software, it would be interesting to drape this image over a DEM and test the SSURGO data in the area of the soil slips.)

And speaking of the summer of 2012, don't miss the upcoming August 23 & 24 workshop jointly sponsored by AOP and the All Ohio Chapter, Soil and Water Conservation Society. President-Elect Steve Miller has worked very closely with AOC-SWCS President-Elect Mark Fritz to develop an outstanding program combining classroom theory with field practicality relative to soil properties affecting water tables and nutrient mobility. Speakers include Dr. Kevin King, USDA-ARS, and Dr. David Lindbo, NCSU, as well as the recently retired Frank Gibbs who will be talking about whatever he pleases, so you won't want to miss it! The program is included in this newsletter. Have a great summer and see you at the workshop! Bob

Dates/Events to
remember:

August 23 & 24th
Summer Workshop,
please register by
August 13th

*Please update your
consultant status on the
registration form
regardless of attendance*

http://ohiopedologist.com/app/download/6794927004/AOP_Summer_Meeeting.pdf

Visions for a
Sustainable Planet
October 21-24th 2012
Cincinnati Ohio

<https://www.acsmeetings.org/>

colors are relict of former environs.

6) Drain Mod as a simulator for soil saturation in extreme weather conditions such as 2010, 2011, 2012

My thanks in advance to those who arranged the August AOP/SWCS workshops. I look forward to some lively discussions.

Some thoughts on the issues of nutrient mobility and water tables in Ohio soils both drained and undrained Joe Steiger, Soil Scientist, Zanesville Ohio

This note is a compilation of some questions that have continued to surface as we have examined sites and soils for design of wastewater treatment systems in east central Ohio. Some relate to the application of the Tyler table. Others are soil morphology and classification issues.

In using the Tyler table, the following issues have been observed that raise questions:

- 1) platy structures in E or BE horizons near the surface would rate as impermeable
- 2) structure of Bx horizons is usually both prismatic and platy-which should be rated?
- 3) some sandy loam C horizons are laminated-is this the same as platy, non-permeable?
- 4) Infiltration values when the distance is less than 8 inches to restrictive layer

Soil morphology questions are constantly present:

- 1) Surface layer color and thickness as an indicator of saturation eg. 10YR 4/2, 10YR 4/1, 10YR 3/2, 10YR 3/1, 10YR 2/1, N2/0
- 2) What is the significance of 3 chroma depletions in the upper subsoil as an indicator of saturation?
- 3) Significance of water table duration to design of systems
- 4) Definition of apparent and perched water tables often is simply how deep do we bore to find a restrictive layer?
- 5) Defining water tables in excavated or filled areas where

If you've described Frank Gibbs smokin' worms but you just can't convey the poetry of the moment, now you can send a link from YouTube that may help.

<http://www.youtube.com/watch?v=eroGrAjlLZk> "Smokin' Worms"

<http://www.youtube.com/watch?v=HLzcvQ5sKQo> Bonus "Roots"

Jerry Glover Blends Philosophy, Science to Fight World Hunger is

an article written by *Phyllis Shier, College of Liberal Arts, Washington State University.*

Phyllis writes that “His research developing perennial versions of annual crop plants will have an enormous impact on sustainable agriculture, confronting societal issues of food shortage as well as the environmental problems stemming from current farming practices.”

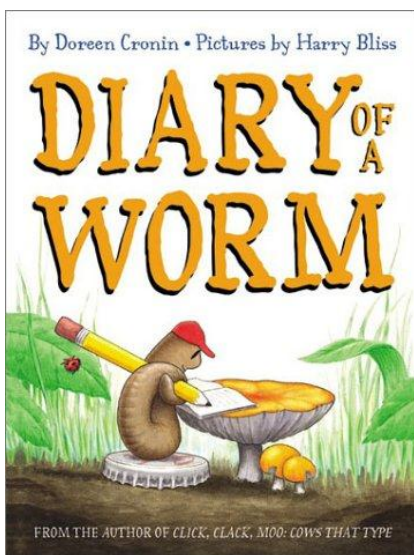
Jerry says “With root systems that reach only 12 inches into the soil, annual crops deplete the earth's nutrients more quickly and require a greater commitment of fertilizer and water than their perennial cousins, whose intricate root systems, such as that of perennial wheatgrass, grow as deep as 7 to 14 feet into the ground. Not only heartier than their annual counterparts, these plants also conserve water and infuse nutrients back into the soil, keeping the landscape rich and viable for years to come.”



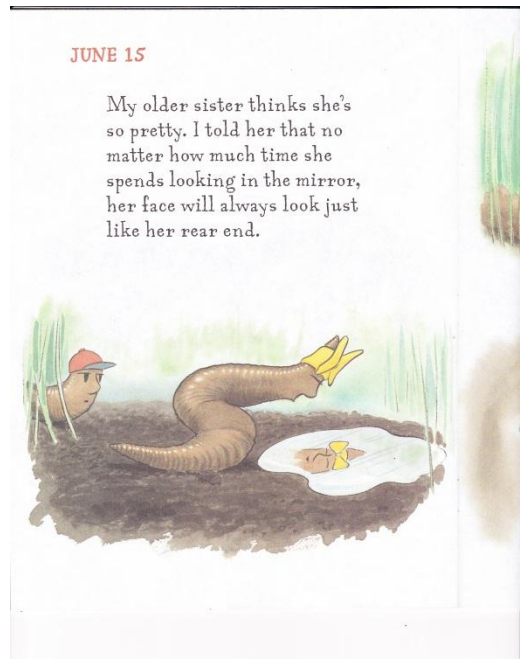
To read the article go to: <http://libarts.wsu.edu/nexus/issues/2010/02/jerry-glover.asp>

Have you read Diary of a Worm, by Doreen Cronin/

Harry Bliss? This is the diary . . . of a worm.



Surprisingly, a worm not that different from you or me: He lives with his parents, plays with his friends, and even goes to school. But unlike you or me, he never has to take a bath, he gets to eat his homework, and because he doesn't have legs, he just can't do the hokey pokey -- no matter how hard he tries. Oh, and his head looks a lot like his rear end. “... people forget that we're even here. But, like Mom always says, the earth never forgets we're here.”



JUNE 15

My older sister thinks she's so pretty. I told her that no matter how much time she spends looking in the mirror, her face will always look just like her rear end.

Adena Soil Judging Team 4th Nationally

The Adena High School FFA Soil Judging team has finished fourth at the National Home Site Contest in Oklahoma City. Team member Ryan Skinner finished in a first place tie in the individual competition, Isaac Ost was 10th and Katie Glandon was 12th. The other team member is Taylor McQuiniff. Their instructor is Jim Skinner who is also the Chairman of the Board for Ross SWCD. Debbie Later (Hocking SWCD Administrator) is also related to Ryan Skinner. Conservation runs deep in the Skinner family.

Read more:

<http://www.newarkadvocate.com/article/B8/20120511/NEWS01/205110303/Adena-soil-judging-team-faces-best-U-S-places-fourth-nationally>

Just when you thought it was safe to go outside...

I don't know about you, but I love to be outdoors recreationally and for work. I've always been adverse to ticks in general but Deer ticks are becoming more prevalent in Ohio. Deer ticks are very small (size of a sesame seed) and have the potential to carry Lyme disease. What's a person to do? The Ohio Department of Health recommends the following:

PREVENTION OF TICK-BORNE DISEASE

Contrary to popular belief, ticks do not jump, fly or fall out of trees. They wait on low growing plants for a host to pass by. When a person or animal brushes against the vegetation, the tick will cling to fur or clothing and crawl upward, looking for a place to attach and begin feeding. The risk of exposure to ticks and disease can be reduced by following these precautions:

- Avoid tick-infested areas such as tall grass and dense vegetation.
- Tuck your pants into sock tops or boots.
- Wear light-colored clothing to make it easier to find crawling ticks.
- Use repellants and follow label instructions carefully.
- Check yourself, your children and pets frequently for ticks.
- Bathe or shower after exposure to tick habitat (preferably within two hours) to wash off and more easily find ticks that may be crawling on you.

For more info:

<http://www.odh.ohio.gov/~media/ODH/ASSETS/Files/vector%20borne/tickbrochure.ashx>

