

Indiana Association of Professional Soil Classifiers



**2022 Membership Dues Statement**

Amount: \$25.00

Please remit payment c/o  
Make checks to I.A.P.S.C. Inc.

**Clip and mail to Dena Anderson IAPSC Sec./Treas at:**  
**6939 S. Majors Rd**  
**Hanover, IN 47243**  
Or at the Annual Meeting

Please correct any contact information as needed.

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THE

# Pedestal



## 2022 Winter Meeting

Indiana Association of Professional Soil Classifiers (IAPSC)

### Indiana Association of Professional Soil Classifiers

### Winter Meeting

### Location: Hendricks County

### 4-H Fairgrounds

1900 East Main Street  
Danville, Indiana 46122

UTM Zone 16, 0543808E, 4401445N, NAD 83

### When: February 7th, 2022

### Agenda (Eastern Daylight Time)

- 8:30 – 9:30 Registration
- 9:30 – 9:45 Welcome and Introductions  
Dave Lefforge – President
- 9:45 – 9:55 NRCS Updates  
John Allen - Acting State Soil Scientist
- 9:55 – 10:25 IGWS Loess Study Henry Loope  
– IGWS, Bloomington
- 10:25 – 10:40 BREAK
- 10:40 – 10:50 IRSS Updates IRSS Representative
- 10:50 – 11:20 Shrink/Swell Soils Workgroup  
Alice Quinn – ISDH
- 11:20 – 11:30 ISDH Updates ISDH Representative
- 11:30 – 11:45 IOWPA Updates  
Randy Staley/Gary Steinhardt

11:45 – 12:45 LUNCH

12:45 – 1:45 Roundtable on Recruitment

1:45 – 2:00 Elections

2:00 – 3:00 IAPSC Business Meeting

3:00 – 3:15 Election Results

3:15 Adjourn – SAFE TRAVELS!

**New business:**

### Candidates 2022 Election:

#### President-Elect

Gary Steinhardt  
Scot Haley

#### Vice President

Mike Salem  
Evan Troutman  
Joe Baker

### The Indiana Association of Professional Soil Classifiers (IAPSC)

is a not-for-profit organization of soil scientists who are interested in the field study and evaluation of soils.

David Lafforge , President  
Larry Gramm, Past President  
Archie Sauerheber, President Elect  
Amber Willen, Vice President  
Dena Anderson, Secretary-Treasurer  
Norm Stephens, Pedestal Editor  
Tim Porter, Website Administrator

<http://www.isco.purdue.edu/irss/iapsc.html>



## **Indiana Registry of Soil Scientists**

(As written on the IRSS web site.)

The Indiana Registry of Soil Scientists is a program that establishes ethical standards and education, examination, and work experience criteria for Indiana Registered Soil Scientists.

<http://www.oisc.purdue.edu/irss/>

## **Pedestal**

We need your stories and photographs for the Pedestal. Please email them to:

[Indycaver@aol.com](mailto:Indycaver@aol.com)

Or mail them to:

Norm Stephens  
1911 Central Avenue  
Indianapolis, Indiana, 46202

## **See the Pedestal in color:**

**Electronic copies of Pedestal** will eventually be found at:

<http://www.iapsc-in.com/#!/documents/c1po4>

## **Membership Email Addresses**

If you did not get an email notification of the electronic Pedestal it means we no longer have a valid email address for you. Please submit your current email address to Norm Stephens:

[Indycaver@aol.com](mailto:Indycaver@aol.com)

Email is the most cost effective way the IAPSC can keep you informed of any last minute changes in meeting plans, or time sensitive notifications of importance to the group.

## **Everyone is Busy**

Everyone who is serving, or has served as an IAPSC board member is a busy person. It's not a valid excuse for not taking a turn in our group's leadership. Many of the same people have taken on the different responsibilities many times over, or they have held a position for years on end. I applaud those who take on a role in our group, but I really find it disappointing we can't get more than one person to run for an office. The jobs do require a day, or two of your time over the course of the year. Most of the time ... a few hours at a time.

Diversity in our group's leadership keeps things fresh. Be sure and say yes when asked to run for office.

Norm Stephens  
17<sup>th</sup> year as Pedestal Editor

## **Soil Classifiers:**

Periodically (once every couple of weeks) I send, via email, notices on happenings within the National Cooperative Soil Survey. The subjects vary, but include job vacancies, workshops, soils videos, NCSS Newsletters, Soil Taxonomy updates, updates on Web Soil Survey, etc. If you are not currently on my email list (which is currently at about 120 folks) and would like to be added please send your current email to me at

[john.allen@usda.gov](mailto:john.allen@usda.gov) Feel free to share this with others if you know of folks you think might be interested, but may not be IAPSC members. Maybe we can recruit some new members!

Of course, if you want to be taken off the list, just email me that too! (Except for the NRCS staff who will get them whether they want them or not!)

John Allen

Acting Indiana State Soil Scientist  
USDA Natural Resources Conservation Service  
6013 Lakeside Blvd.  
Indianapolis, IN 46278  
(317) 295-5859 (Office)  
[john.allen@usda.gov](mailto:john.allen@usda.gov)





## Hendricks Co 4-H Fairgrounds & Conference Complex

1900 East Main Street, Danville, IN

The Winter Meeting will be held at the Hendricks County 4-H Fairgrounds located southwest of Indianapolis. The fairgrounds is a 12 mile drive from I465 on the west side of Indianapolis along SR 36. The Hendricks County 4-H Fairgrounds and Conference Complex is located at the intersection of County Road 200 E and East Main Street (Old US-36 in Danville)

## Hendricks County 4-H Fairgrounds Map



The Hendricks County 4-H Fairgrounds and Conference Complex is located at the intersection of County Road 200 E and East Main Street (Old US-36 in Danville).

<http://www.4hcomplex.org/>





## **Rick Neilson Retirement**

Rick Neilson Indiana State Soil Scientist is retiring at the end of December after working 38 years for SCS/NRCS. Rick spent 16 years in Michigan as a field soil scientist and worked soil survey details in Florida and California. Rick was then promoted to a Resource Soils Scientist working out of the Winamac and Plymouth, Indiana offices before becoming the Indianapolis Soil Survey Project Office MLRA Project Leader. Rick was then promoted to the Assistant State Soil Scientist position where he developed many reports and worked hard to iron out the database kinks created from the transition from 3SD to NASIS. Rick also worked on wetland appeals and training as well as keeping track of endless loss of prime farmland though federal spending. Rick was then promoted to the State Soil Scientist position after the retirement of Gary Struben.

John Allen will be acting State Soil Scientist until the position is filled.

## **Miscellaneous News**

North Miami High School won the State Land Judging Contest once again with the Coach Jim Wildermuth collecting another chrome spade to add to the collection.

New spades are currently at the chrome platers.

## **Dynamic Soil Properties Sampling – 4 Management systems – 2 Soil series**

By Dena Anderson

In early November, a team of multidiscipline agencies and states came together to extensively sample a multitude of soil pits for evaluating dynamic soil properties. In the shadow of the terminus of the Wisconsin Glacial Advance, the team sampled the older Illinoian aged poorly drained Cobbsfork and somewhat poorly drained Avonburg soils under various management systems. The management systems ranged from a near undisturbed site in a woodlot, through traditional tillage to long term soil health building. These evaluations were meant to provide a baseline data set to measure the benefits of soil health building and regeneration through no-till and cover crop usage over a long term.

The Cobbsfork (Fine-silty, mixed, active, mesic Fragic Glossaqualfs) and Avonburg (Fine-silty, mixed, active, mesic Aeric Fragic Glossaqualfs) soils are formed in windblown silty material known as loess and the underlying glacial materials. These soils were formed under forested conditions and have naturally low organic matter contents. This low organic matter content coupled with the loess, which has very low strength in wetter conditions, sets the stage for easy degradation of the soil structure through tillage.



(left to right) John Allen, Assistant St. SS, Will Tripp, NW Area RSS, Norm Stephens, SS with MLRA Office, now retired, Rick Neilson, St. SS describing Cobbsfork in the “new” soil health field.

The sites are in Decatur County which is between Indianapolis and Cincinnati. Roger Wenning, a farmer and longtime soil health advocate offered the sampling sites for this project. Roger is beyond enthusiastic about building soil health on his land and has an ongoing quest for knowledge in this arena. And it is contagious! In the year of COVID, for once there’s an “upside” to that word.



The first sites sampled were on a farm recently acquired by Roger. These soils had been farmed using traditional tillage in the past. The soils' structure had been degraded over time creating compaction and subsequent drainage issues in the fields. Roger's hope is that through the incorporation of soil health practices he can regenerate these fields to better productivity.

Adjacent to these sites, a woodlot was sampled to provide an example of what the soil properties would have been prior to clearing and cultivation. These sites will provide the historical aspect of the sites in which to weigh the amount of degradation and subsequent rebuilding of the soil's physical and chemical properties.

The third set of sites were in a field using a long term (20+ years) soil health management system. These soils were continuous no/never till, cover crops, planting green and drainage management. These sites will hopefully show some progression on the road to regaining a healthy soil.

Finally, the fourth set was a traditional tillage type management. This site was owned by a neighbor of Roger's who was gracious enough to allow the team to sample his fields. As the science behind how and why reduced tillage systems, and now more aggressive soil health practices come to the forefront, these types of traditional sites are becoming more difficult to find.



Left to right – Monica Pohler, ISDA Resource Specialist, Norm Stephens, SS, Rick Neilson St. SS, John Allan, Asst. St. SS, Will Tripp, NW Area RSS sampling Avonburg pit in long term soil health practice field

The team sampled a wide variety of physical soils properties in December. One main soils pit was used to collect samples for soil texture/particle size evaluation, (amount of sand, silt, and clay), bulk density, cation exchange capacity (CEC), pH, organic material, and mineralogy. A detailed soil description was made identifying the various layers or horizons in the soil profile, depths to water tables, depth to limiting layers, and various parent materials were described. Intensive evaluation of water infiltration rates was done using a constant head permeameter (aka Amoozemeter.) This tool measures the rate at which water infiltrates at a known depth under a constant amount of "head" pressure. This main pit was described to a depth of approximately 2 meters. Two smaller "satellite" pits were dug to evaluate textures, bulk density, and organic matter content. Infiltration tests were done on these sites utilizing the compliant cavity method.

Sites near the pits were also evaluated utilizing the current national soil health worksheet. Aggregate stability and earthworm counts were among those properties evaluated.

Over 2000lbs of soil samples were sent for testing to the NRCS Kellogg National Soils Laboratory in Lincoln, NE.



Constant head permeameter (Amoozemeter) set up on “new” Avonburg field

The team included the following people:

Stephen Roecker, project leader (at the time), Indianapolis, Major Land Resource Area Soil Survey Office

Matthew Tucker, project leader, Findley, OH soil survey project office

Norm Stephens, project member, recently retired, Indianapolis soil survey office

Rick Neilson, State Soil Scientist, Indianapolis

John Allen, Assistant State Soil Scientist, Indianapolis

Stephanie McLain, State Soil Health Specialist, Indianapolis

Robert Zupancic, Grazing Land Specialist/SE Area Soil Health Team Leader, North Vernon

Will Tripp, Resource Soil Scientist, Lafayette

Monica Pohlar, Resource Specialist, Indiana State Department of Agriculture, Connersville

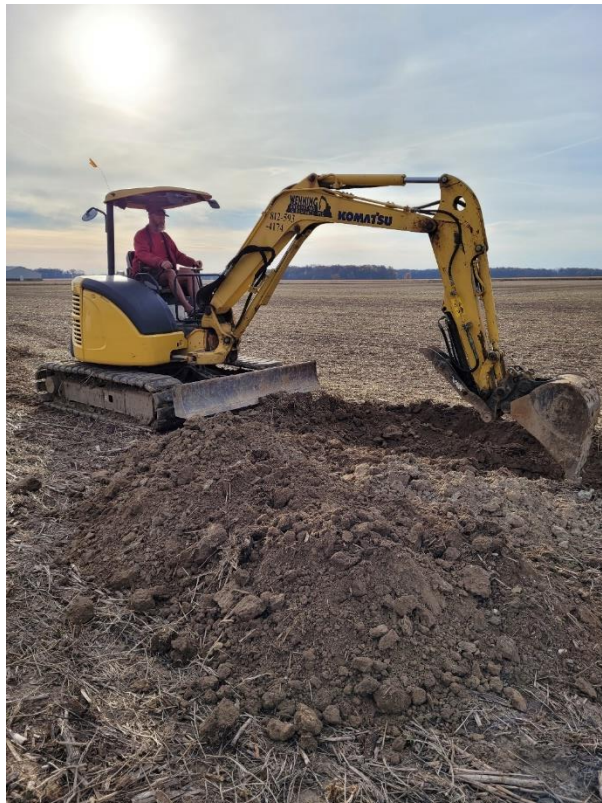
Roger Wenning, landowner, excavator, soil health enthusiast, Greensburg

Dena Anderson, Resource Soil Scientist, North Vernon





Matt Tucker, SSPL-Findley, OH and Stephen Roecker, SSPL- Indianapolis, IN conducting compliant cavity tests in a satellite pit of the Cobbsfork “new” field.



Landowner, equipment operator and soil health enthusiast Roger Wenning digging the 1<sup>st</sup> of the 8 pits sampled for this project



## Dynamic Soil Properties Cobbsfork/Avonburg – Phase II Biological Sampling

The fall of 2020 saw a multi-state staff undertake the challenge of characterizing and sampling 8 soil pits with 2 satellite shallow soil pits on each of the 2 soils series over 4 different land uses in Decatur County located in southeastern Indiana. Physical properties such as particle size and bulk densities along with quantitative measurements of permeability and infiltration rates were gathered.



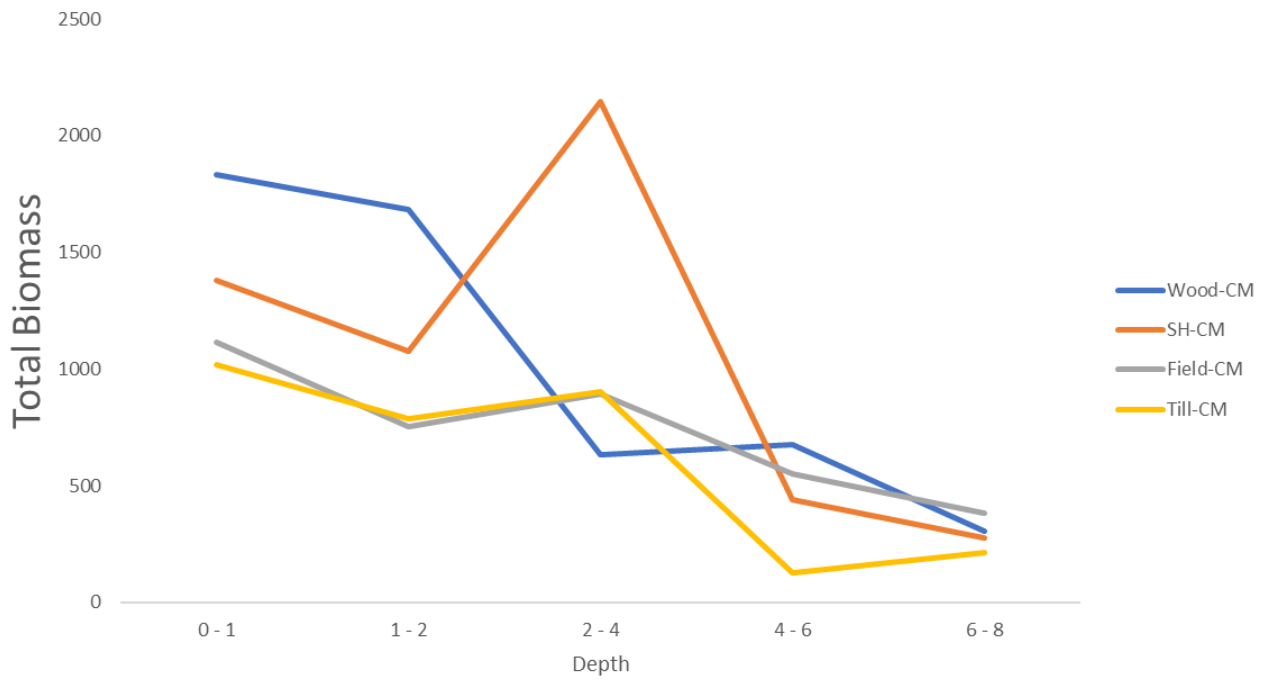
Kayla Mitchell and Grace Moore, Pathways Interns learning about soil health and sampling for biological tests

The following spring of 2021 saw the team return to the sampling sites and complete the soil biology sampling. These samples will be analyzed for Total Organic Carbon, Active Carbon, Soil Proteins, Respiration and PLFA (phospholipid fatty acid). All these different sampling sites created a great opportunity to look not only at physical and chemical changes but also to look at the biological properties.

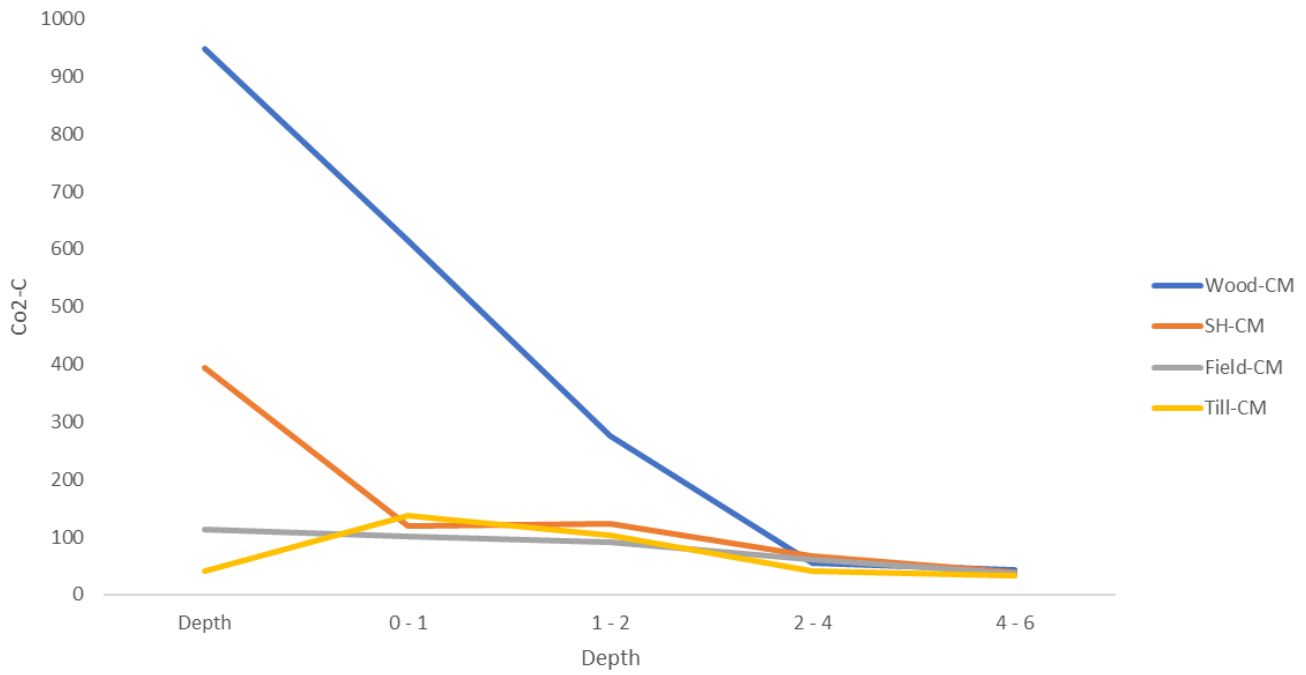
This is the beginning base line data in a what will become a long-term monitoring project to track the changes in soil regenerative processes fostered by active soil health management. The long-range plan is to return to the sites and resample for the biological activity and monitor the changes wrought by that process. Stay tuned for further updates and developments!



# Total Biomass



# CO<sub>2</sub>-C



## Purdue Mesonet Upgrades

Indiana NRCS Soil Scientists assisted Purdue University in the installation and upgrade of monitoring equipment at the 9 Purdue Agriculture Centers (PACs) across the state. It was recommended that soil profiles be described and classified before installation to help augment the metadata. Soil scientists assisted Bob Autio and Beth Hall, Indiana State Climatologist, in the installation of soil moisture and temperatures sensors across the [Purdue Mesonet](https://ag.purdue.edu/indiana-state-climate/purdue-mesonet/) at the following depths 2, 4, 10, and 20 inches.

<https://ag.purdue.edu/indiana-state-climate/purdue-mesonet/>

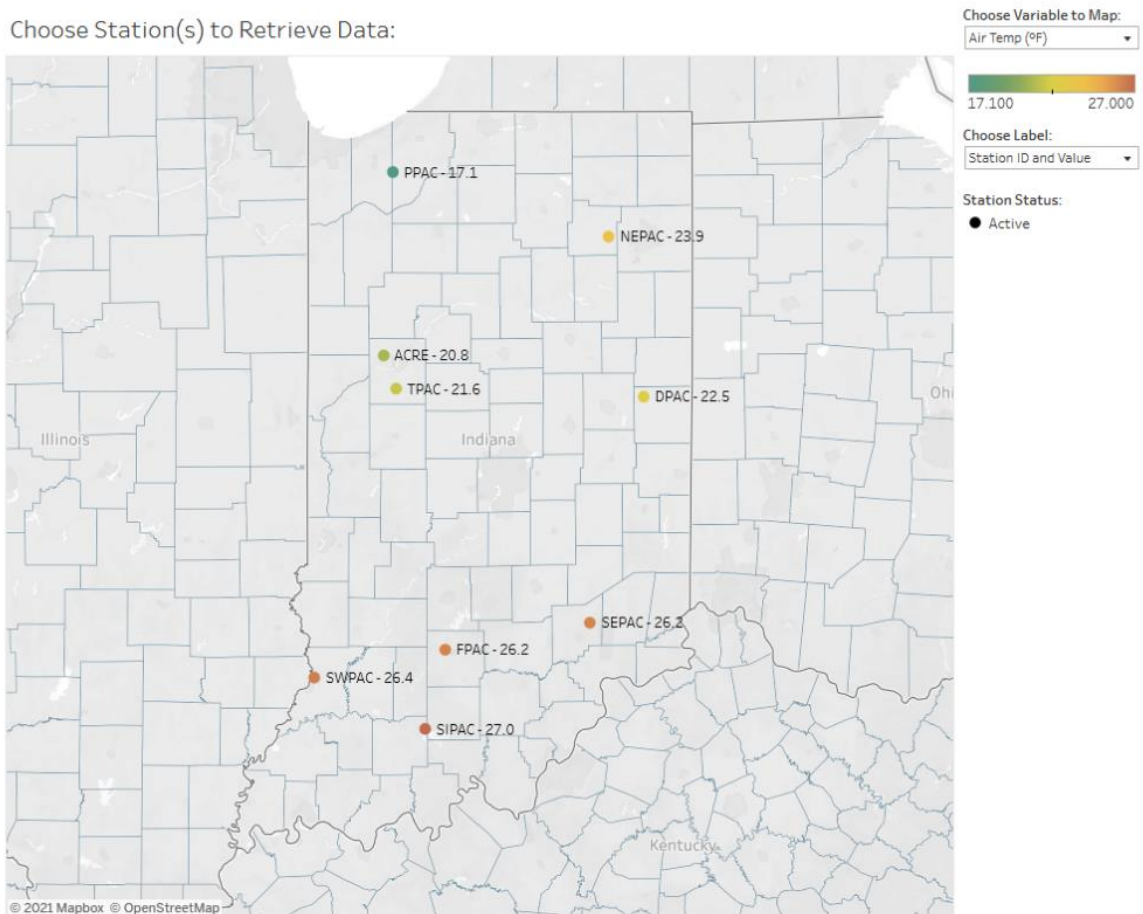
Small pits were dug adjacent to the climate monitoring stations to describe the soils profile do a depth of 20 inches.

Sensors were then installed in a smaller pit closer to the monitoring stations and the data logging equipment upgraded in the station.

The Indiana State Climate Office (INClimate) is the state archive of official daily and hourly weather observations recorded throughout Indiana. INClimate maintains an online archive of many recent daily and hourly observations from both manual and automated networks. Older observations are being converted to an online database as part of an ongoing national effort.

INClimate was established in 1956 to document and study the climate of Indiana. Ever since, it has been catering to the needs of different users, namely individuals, businesses, and government agencies. INClimate not only assists in providing climate observations and summaries but also interprets and applies this data to solve climate related problems at hand.

Primary users of Climate data belong to sectors such as agriculture, attorneys, construction, environmental monitoring, forensics, government insurance, news media, research, education and utilities.



## Francis Hole House



Francis Hole, celebrated emeritus professor of soil science and geography at the University of Wisconsin, resided here from 1946-2000. A Quaker, he devoted himself to family, world peace, non-violence, civil rights, social justice and the environment. In 1983 his efforts to enact legislation designating "Antigo Silt Loam" as the Wisconsin State Soil became a reality. Francis was a presence in the neighborhood often seen working in the yard and garden, or jumping over the fence at the day care center to play his violin for the children. He lived to the ripe old age of 88. May his memory live on.

As promised to Ed (Taylor): After 30-years of living in Madison Wisconsin guess who's former home I stumbled across this Halloween (10/31/21) by happenstance after having a beer at the celebrated, cozy quintessential Madison neighborhood bar called the [Harmony Bar](#) (2-blocks away) and out for some daily photography ? Answer: Francis D. Hole's 1946-2000 home at the south east corner of [Dunning Street and Center Avenue](#), Madison, WI ([2201 Center Ave](#) or 43.019154, -89.348.72 for the GPS inclined). [Street view here](#). Photograph of the plaque at the sidewalk intersection attached.

The classic [Soil Genesis and Classification](#) cemented my young college mind into the frame work for my lifelong love of Soil Science and the philosophy of living to see things as interconnected it taught me. Some things don't get less significant as I age but rather just the opposite.

Noel P. Anderson, PG, PSS  
Madison Information Systems and Analysis, LLC  
608-268-9680 (L)  
608-225-2754 ©

### Publication List

Francis Doan Hole, Professor Emeritus,

Dept of Soil Science, University of Wisconsin-Madison

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