
Short Lane Ag Supply LLC

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Farmer

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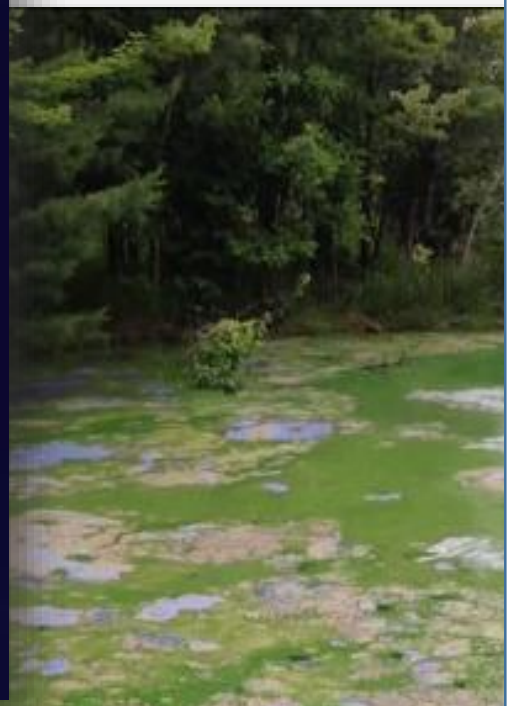
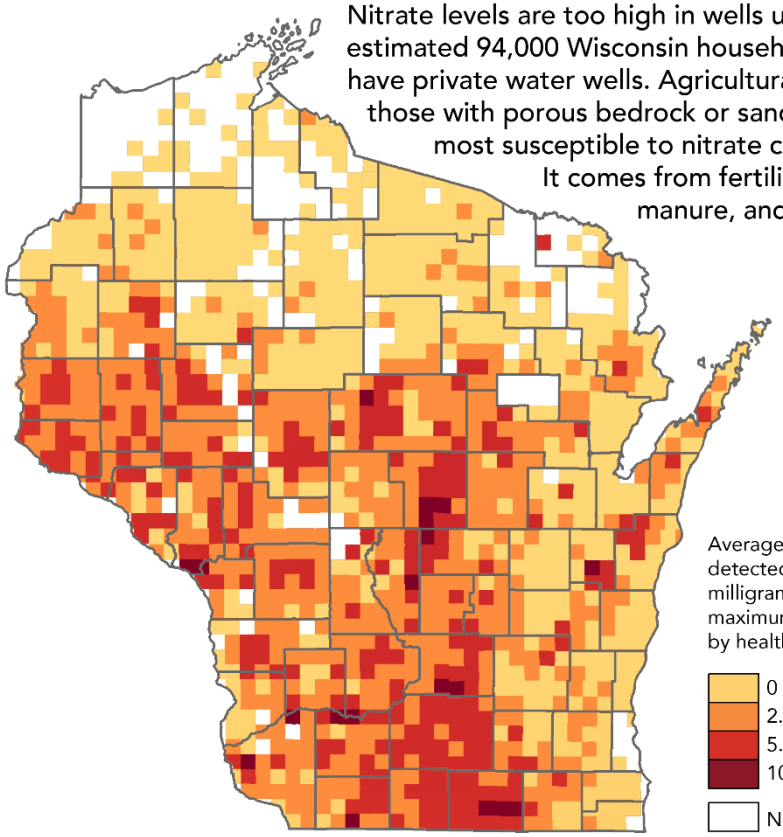
Farmer


The way we
have been
doing things do
not work
anymore.



Nitrate in drinking water around Wisconsin

Nitrate levels are too high in wells used by an estimated 94,000 Wisconsin households that have private water wells. Agricultural areas and those with porous bedrock or sandy soil are most susceptible to nitrate contamination. It comes from fertilizers, including manure, and other sources.

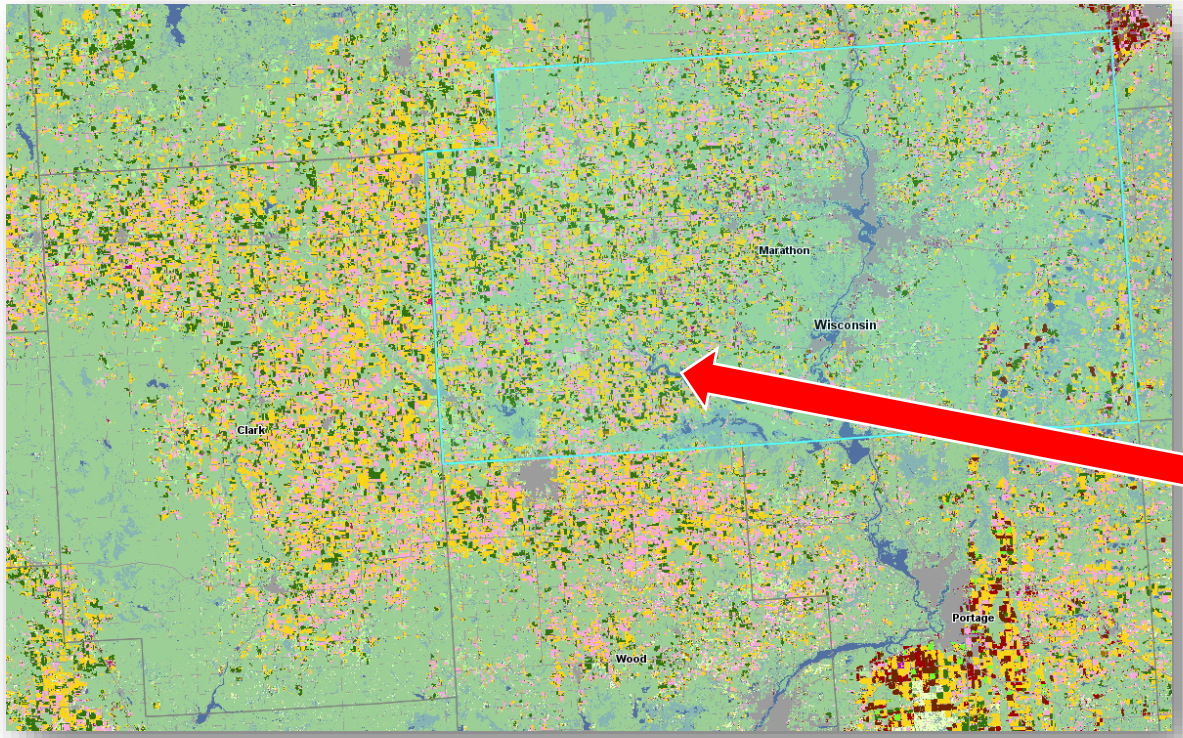


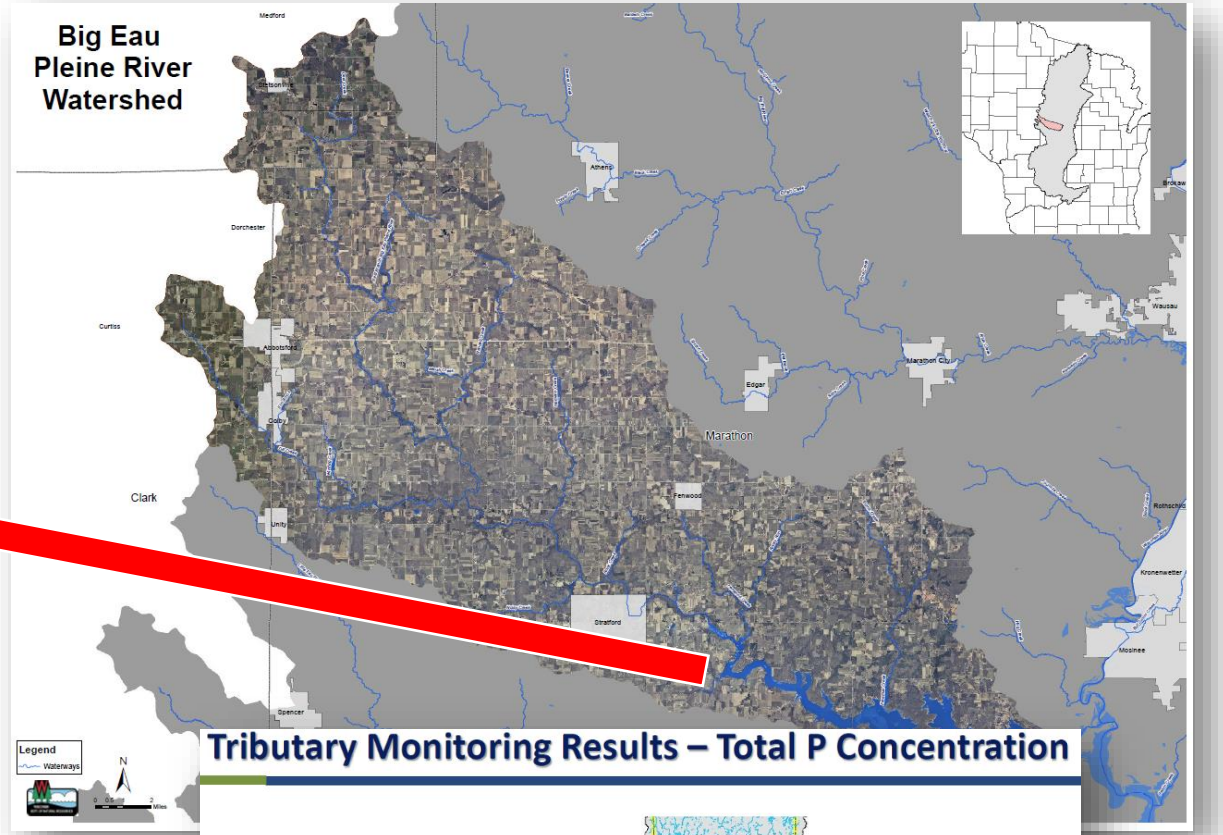
Average amount of nitrate detected by township (in milligrams per liter). The maximum amount allowed by health standards is 10 mg/l.

- 0 - 2.0
- 2.1 - 5.0
- 5.1 - 10.0
- 10.1 - 20.0
- No Data Available

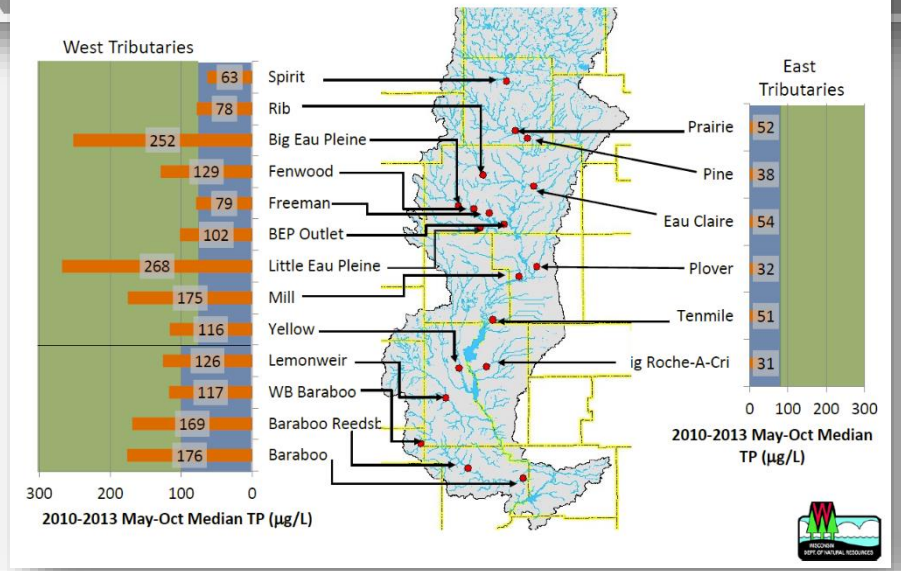
CREDIT: Katie Kowalsky/Wisconsin Center for Investigative Journalism

SOURCE: Well Water Quality Viewer, University of Wisconsin-Stevens Point's Center for Watershed Science and Education. Private Drinking Water Quality in Rural Wisconsin, Journal of Environmental Health, 2013.

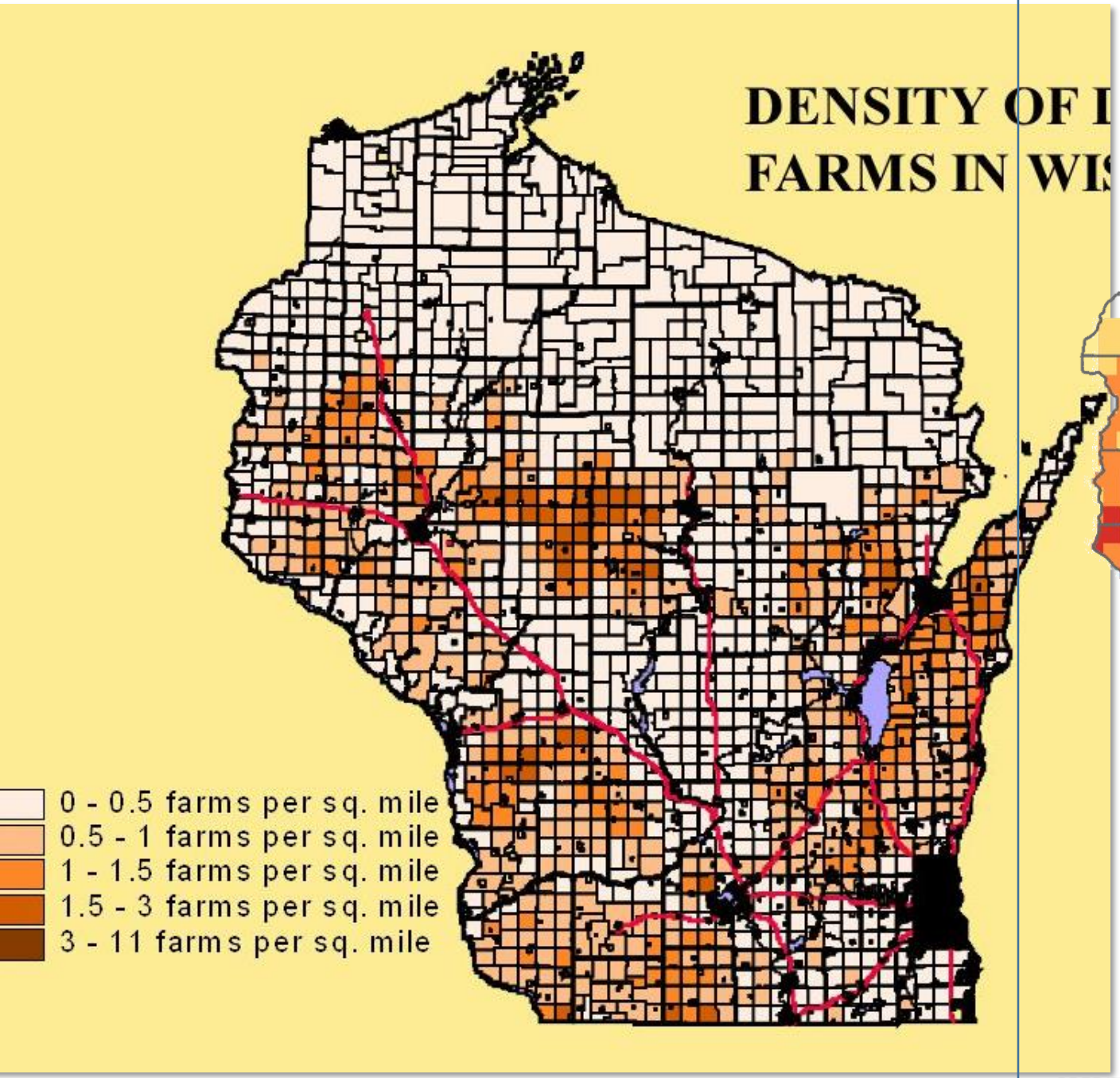


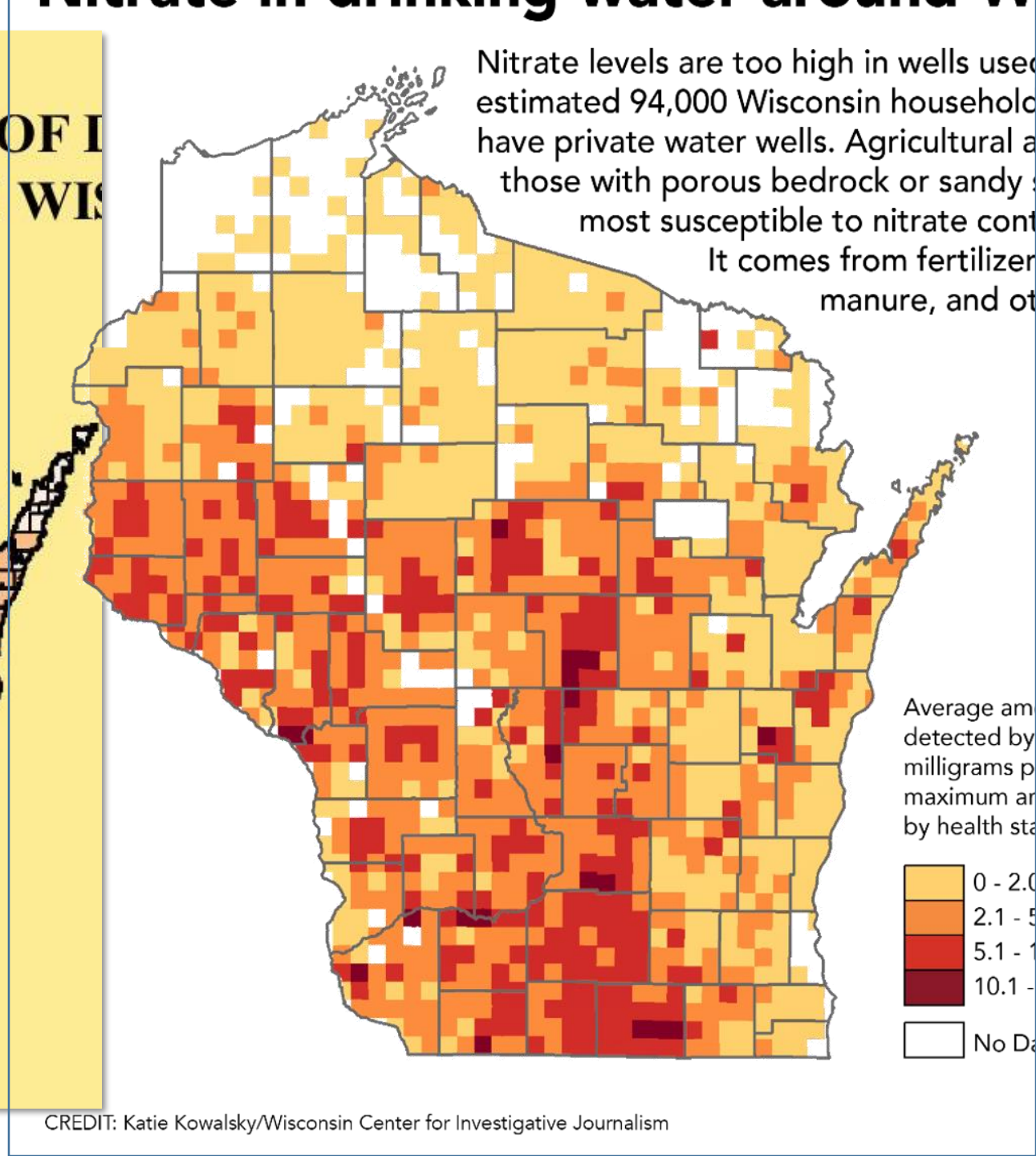


Tributary Monitoring Results – Total P Concentration



- **Corn Silage**
  - Marathon County: 37,800 acres (2016) Rank 1
  - Clark County: 34,700 acres acres (2016) Rank 2
- **Dairy Production**
  - Marathon County: 61,000 cows (2016) Rank 2
  - Clark County: 68,000 cows (2016) Rank 1





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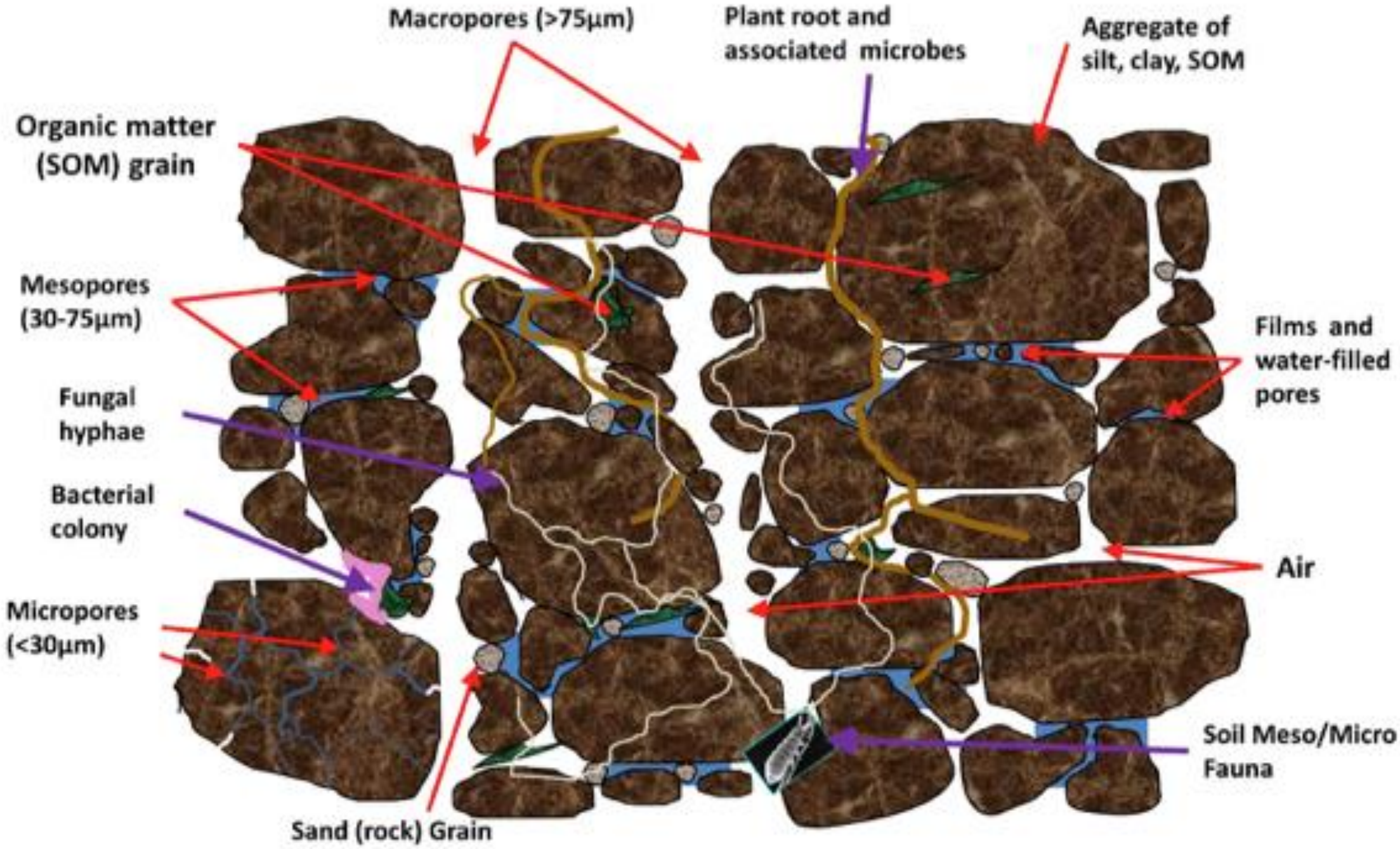
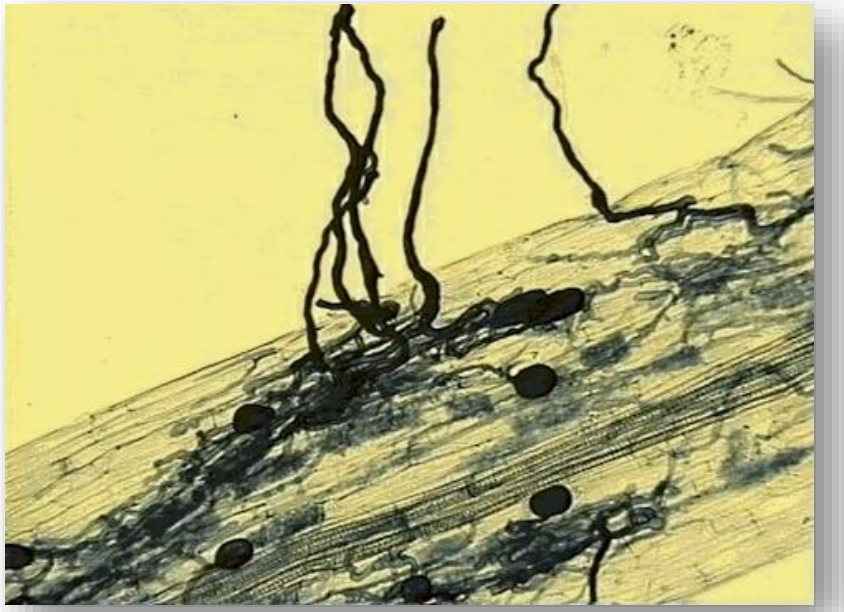
Soil Biology

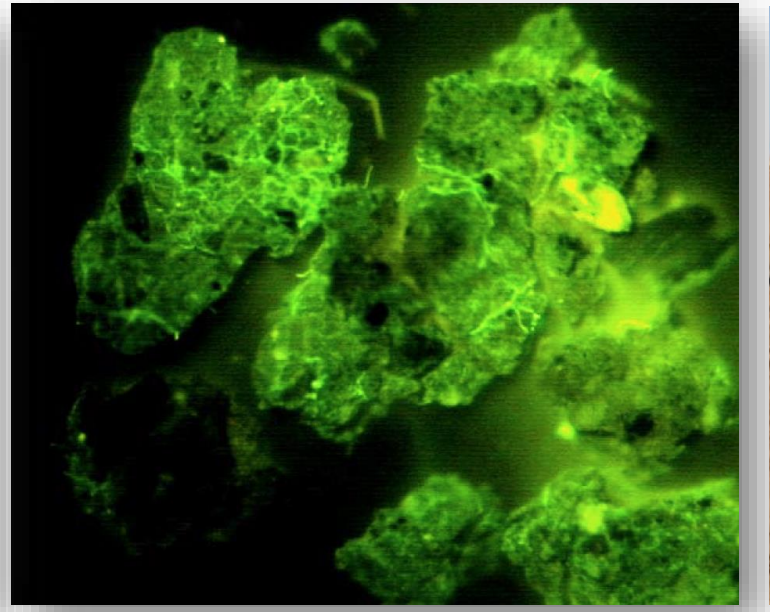

Macropores (>75µm)
Plant root and associated microbes
Aggregate of silt, clay, SOM
Organic matter (SOM) grain
Mesopores (30-75µm)
Films and water-filled pores
Fungal hyphae
Bacterial colony
Air
Micropores (<30µm)
Soil Meso/Micro Fauna
Sand (rock) Grain

Soil Biology – Symbiotic Relationships



Mycorrhizal fungi

Rockstars of the Rhizosphere



Glomalin

Snot of the Soil

CAUTION

It is possible to till the snot out of the soil

Fall Tillage

Surface drastically exposed

DATCP approved Nutrient Management action: 10,000-20,000 gal manure allowed as long as it is incorporated with tillage. Erosion and soil type restrictions may apply

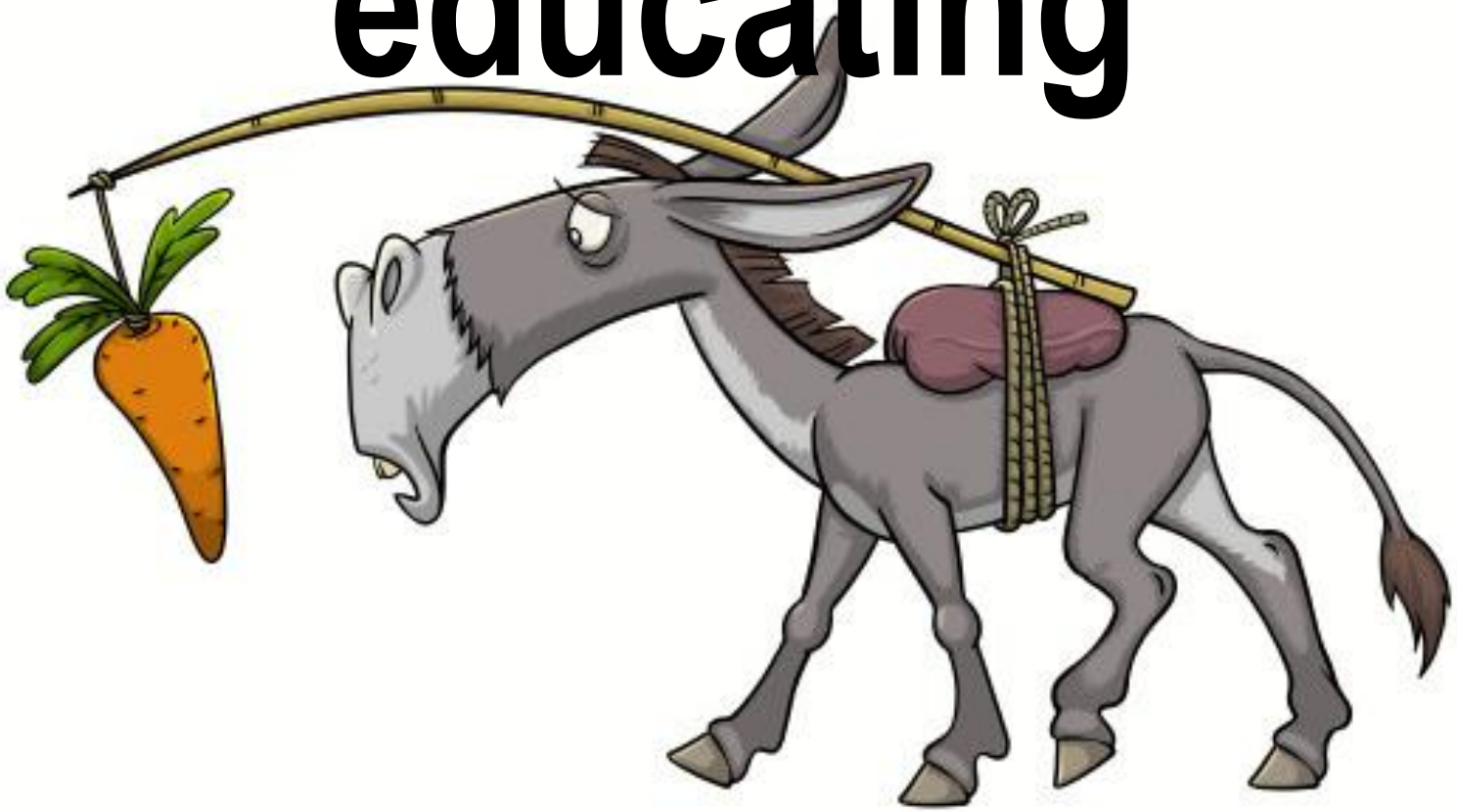
Followed by manure and tillage

Winter spreading

DATCP approved Nutrient Management action:
Continuous winter spreading of manure allowed on approved frozen acreage

Disconnect of knowledge

Incentivizing not educating

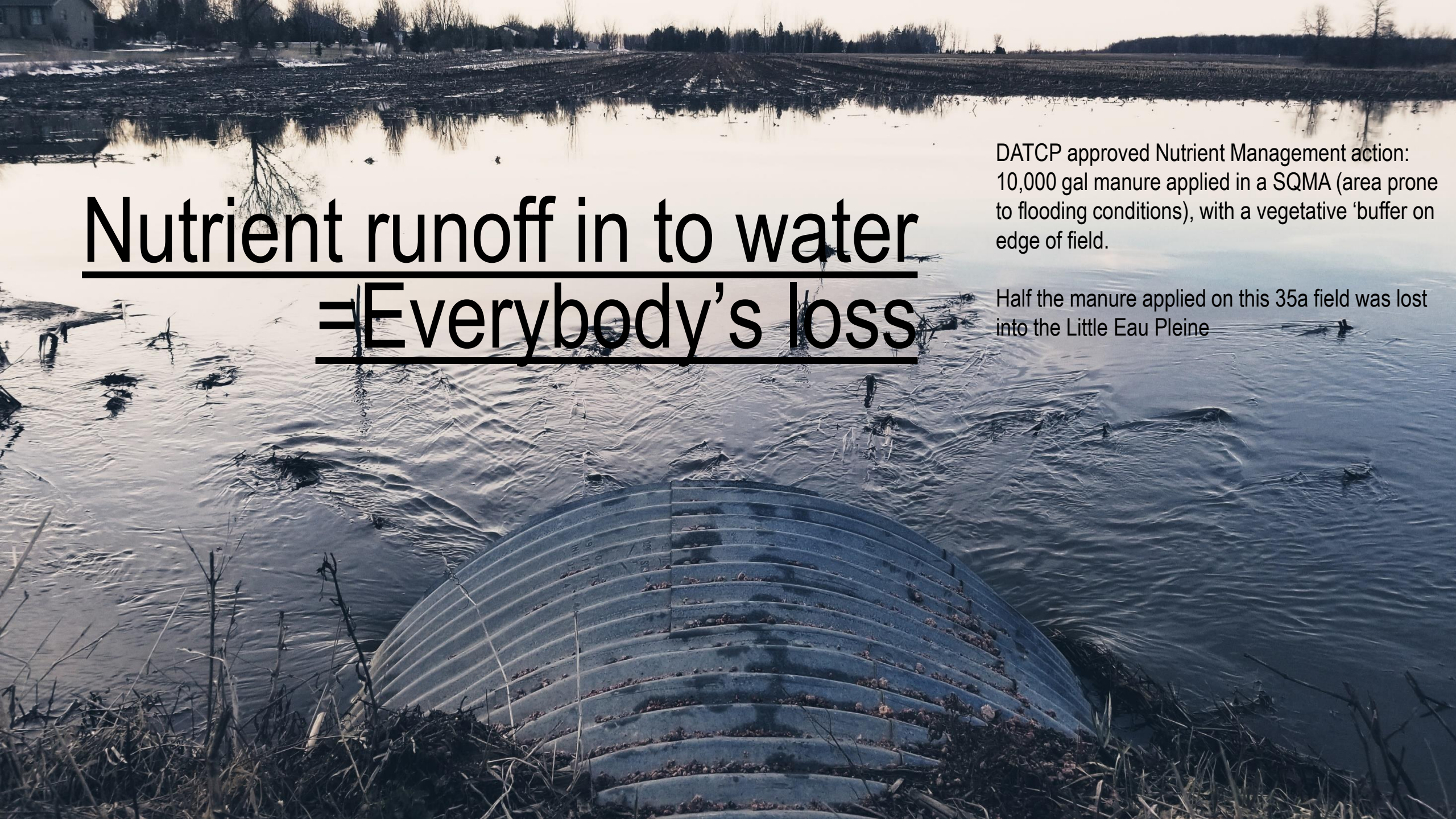



Loss of revenue
and sustainability

TOP SOIL

8.8 tons of dirt/a

contains highest fertility and biology for sustainable yield

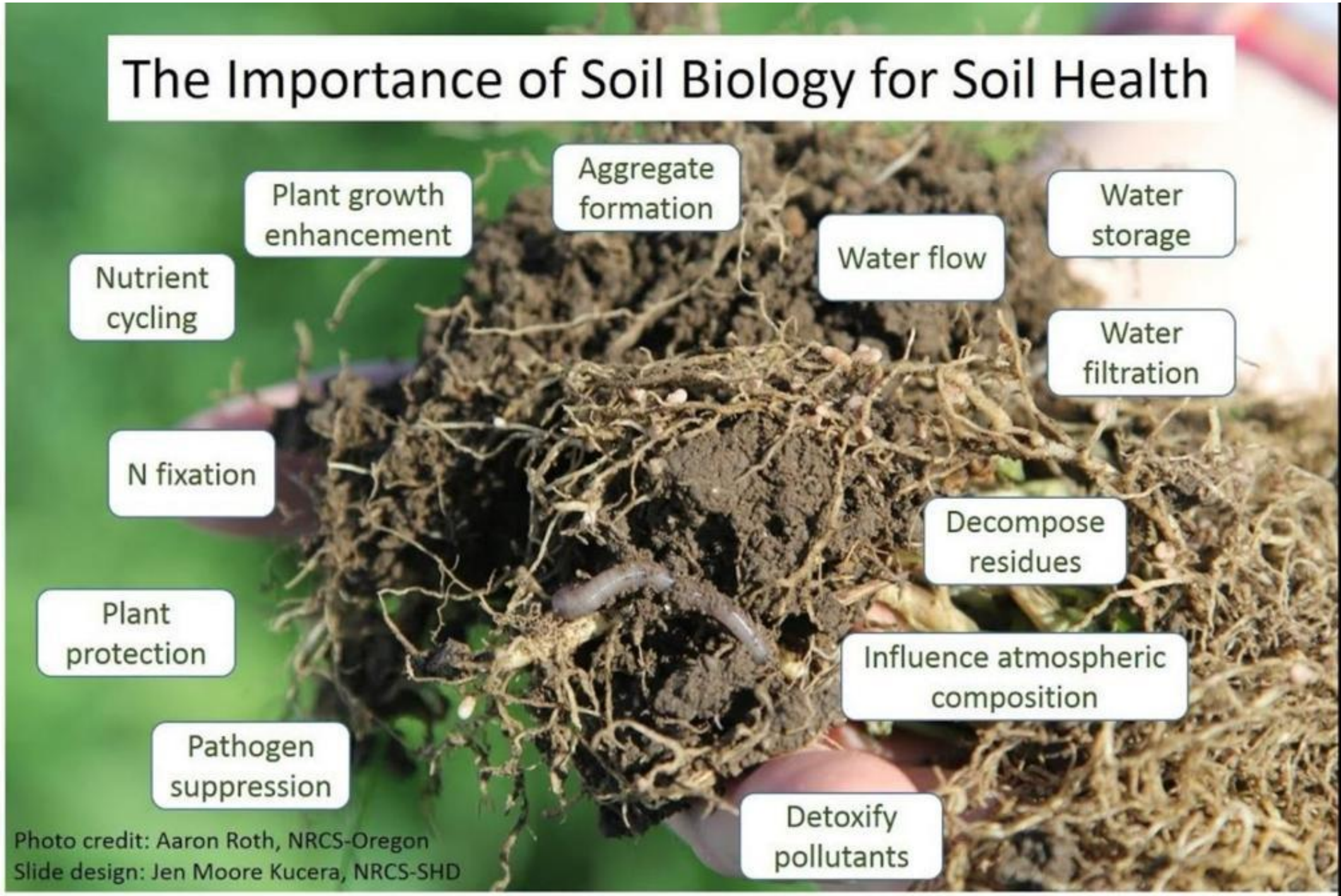


Nutrient runoff in to water =Everybody's loss

DATCP approved Nutrient Management action: 10,000 gal manure applied in a SQMA (area prone to flooding conditions), with a vegetative 'buffer on edge of field.

Half the manure applied on this 35a field was lost into the Little Eau Pleine


Soil Health &
Conservation


The Importance of Soil Biology for Soil Health
Plant growth enhancement
Aggregate formation
Water storage
Water flow
Nutrient cycling
Water filtration
N fixation
Decompose residues
Plant protection
Influence atmospheric composition
Pathogen suppression
Detoxify pollutants
Photo credit: Aaron Roth, NRCS-Oregon
Slide design: Jen Moore Kucera, NRCS-SHD


Minimum-No Till
Low Disturbance Manure applications
Managed grazing
Precision Yield Plans
Conservation plans

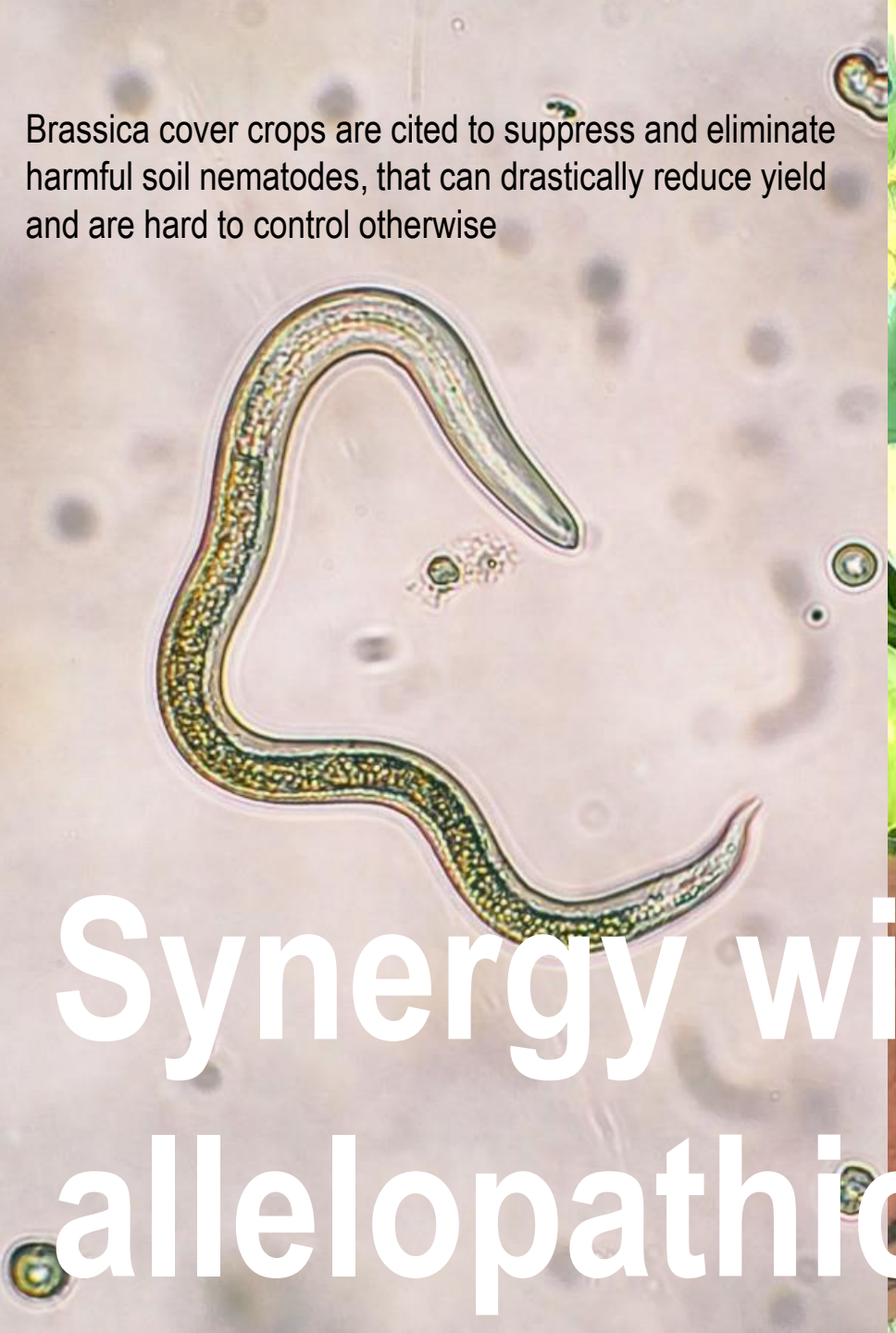

Cover crops
regenerates soil biology

and creates more nutrient uptake by crops

Mycorrhizal fungi creating more avenues for roots on crops to obtain water and nutrients

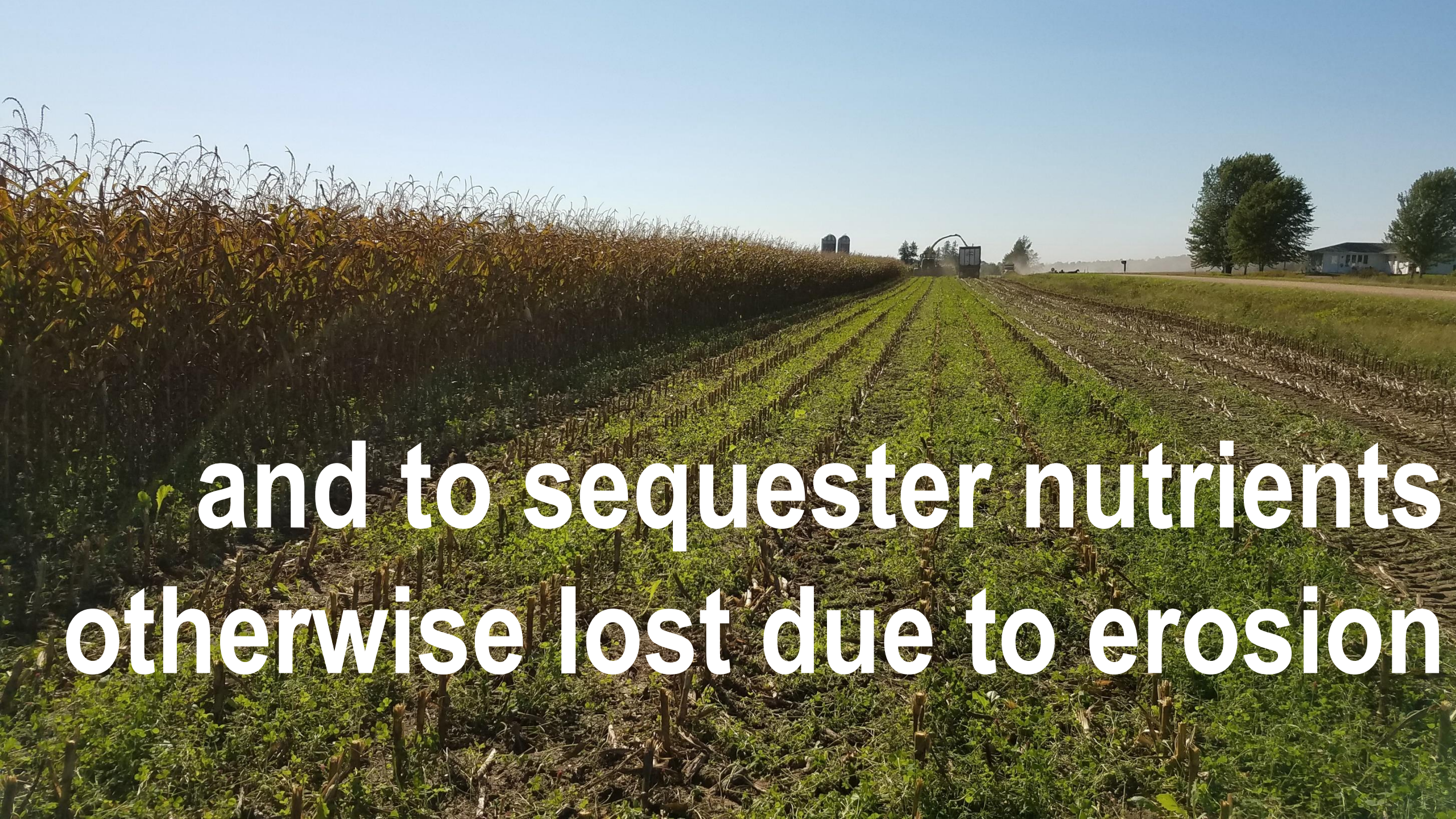
biomass cover to suppress weeds for less herbicide applications

Brassica cover crops are cited to suppress and eliminate harmful soil nematodes, that can drastically reduce yield and are hard to control otherwise



Synergy with biology and allelopathic benefits


growth to aid in manure
management


and to sequester nutrients
otherwise lost due to erosion

EPPIC
Eau Pleine Partnership for Integrated Conservation

Common Ground
For the future of our soil & water




Partners

In finding common ground in soil and water conservation

Halder Bridge Bar & Grill

Wisconsin Meadows 100% Grass-fed Beef

RIVER ALLIANCE of WISCONSIN

Thank You!

Foremost FARMS USA

Wisconsin Farm Bureau Federation

College of Agricultural & Life Sciences, University of Wisconsin-Madison, Growing the future

Dairy Grazing Apprenticeship

Nasonville Dairy, Since 1881, A Family Tradition of Quality

B.A. & Esther Greenheck Foundation

The Bridge to Better Forages
Byron Seeds
Fertile Fields. Higher Yields. Plan On It.

Marathon County
Conservation, Planning, & Zoning Department

Mullins Cheese

This & That Wisconsin Stratford Store

Short Lane Ag Supply LLC

bepco
Big Eau Pleine Citizens Organization

AgCountry Farm Credit Services

Bull Falls Brewery

Ancestor Acres
100% Grassfed Beef
Bob & Tammy Brandt

STOP THE LOSS OF RETURN ON INVESTMENT AND POLLUTION OF WATER

Educate
&
Applicate

This isn’t just an agriculture problem, it’s *all* our problem….

But farmers are the only ones working towards a solution….

What are city centers doing?

WPR

A backhoe sits next to a portion of sewer line that will be replaced after an underwater leak caused up to 100 million gallons of waste to flow into the confluence of the Eau Claire and Chippewa rivers near Eau Claire's downtown.

Rich Kremer/WPR

After Major Sewage Leak, Eau Claire Working To Replace Broken Pipe

Up To 100 Million Gallons Of Sewage Leaked Into Chippewa River

By Rich Kremer

Published: Monday, December 12, 2016, 2:40pm

REPORT: 3.7 million gallons of raw sewage leaked into Wisconsin River

By WSAW Staff | Posted: Mon 3:05 PM, Jan 29, 2018 | Updated: Mon 5:47 PM, Jan 29, 2018

WAUSAU, Wis. (WSAW) -- The city of Wausau estimates 3.7 million gallons of raw sewage flowed into the Wisconsin River when a sewage line became plugged.

7 Investigates spoke with Public Works Director Eric Lindman last week who said raw sewage plugged a sewage line on the north side of Sturgeon Eddy Road, near the intersection with Wisconsin Street.

Lindman said that line carries a million gallons of sewage a day from the southeast side of Wausau, across the Wisconsin River and to the wastewater treatment plant.

Lindman spoke with the Marathon County Health Department, who said at this point there is not a public health impact, though they recommend any fish caught be washed and cooked thoroughly.

A homeowner called the public works department Jan. 23 about a smell, said Lindman, which is how they found out about the plugged line.

The city said the amount represents a very small the
overflow event.

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BAD RIVER LODGE AND CASINO
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FEATURED TOP STORY

City dumps nearly 75 million gallons of sewage into bay

By RICK OLIVO rolivo@ashlanddailyress.net Aug 6, 2018 0

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• You will need to sign in or
TRILOGY

MMSD dumps untreated sew into rivers, Lake Michigan

Posted: 6:17 PM, Jun 19, 2018 **Updated:** 8:11 PM, Jun 19, 2018

By: Ben Jordan

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What can you do?

- Invest in research towards conservation practices
- Enforcement of excessive runoff of manure (no more winter spreading)
- Update SNAP Plus and UW recommendations to accommodate conservation practices
- Maintain farm watershed groups
- All land conservation office be fully staffed (Clark County)
- Comprehensive education programs for farmers

Renaissance of Wisconsin policy

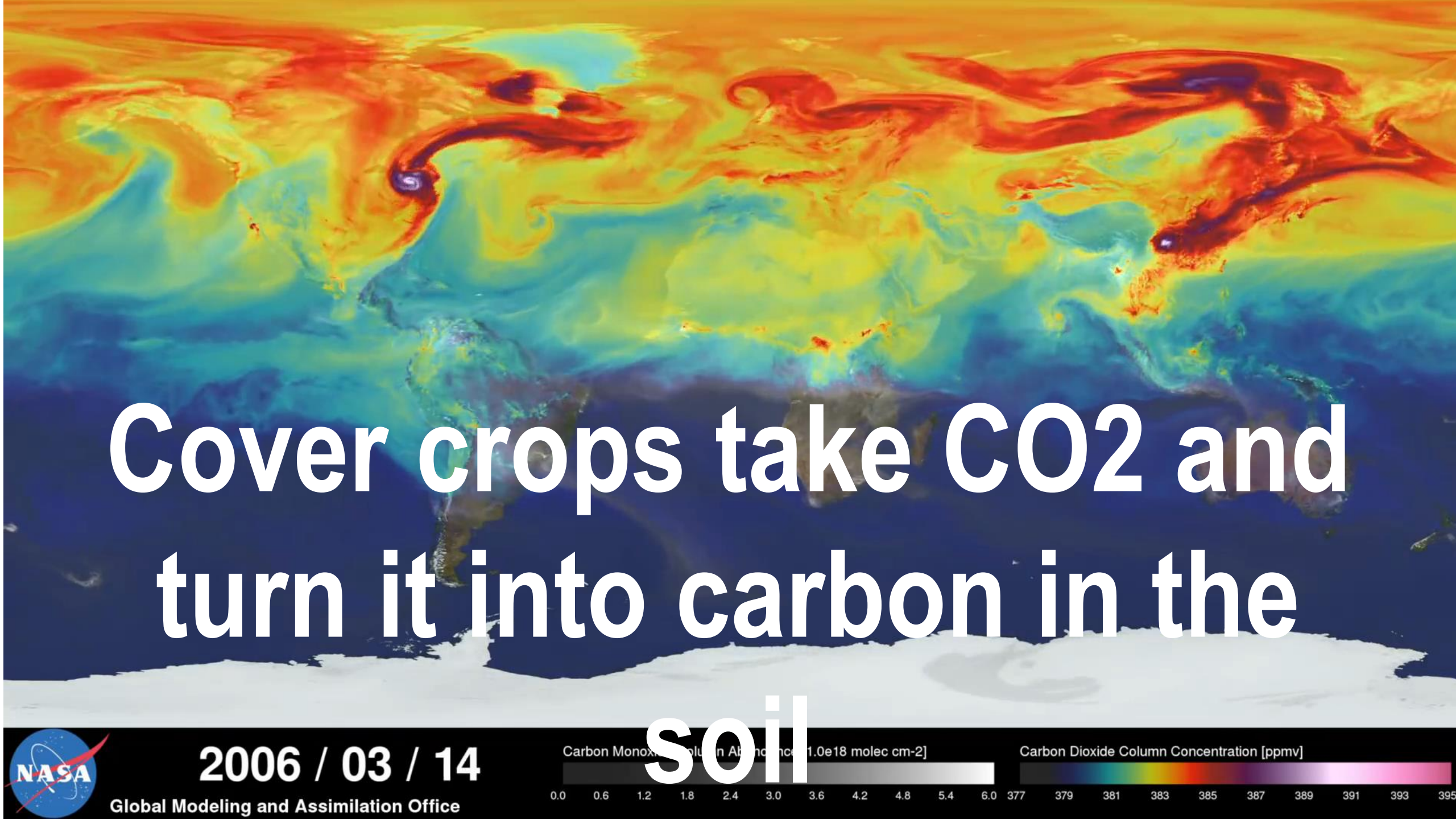
- 1948-49; new era in state policy toward the natural environment…where citizens had once seemed willing to tolerate pollution as a public necessity, they increasingly defined it instead as an unwarranted threat to the welfare of the community.
  - *Consuming Nature,* Gregory Summers


Conservation is a state of harmony between men and land
Aldo Leopold


FORWARD

NO ONE WILL BE LEFT IF YOU CAN'T DRINK THE WATER OR PRESERVE THE FARMING CULTURE IN WISCONSIN

Short Lane Ag Supply LLC


Cover crops take CO2 and turn it into carbon in the soil
NASA
2006 / 03 / 14
Global Modeling and Assimilation Office
Carbon Monox
1.0e18 molec cm-2]
0.0 0.6 1.2 1.8 2.4 3.0 3.6 4.2 4.8 5.4 6.0
Carbon Dioxide Column Concentration [ppmv]
377 379 381 383 385 387 389 391 393 395