

Nutrient Management in Wisconsin



Andrea Topper

Training and Outreach Conservation Specialist

WISCONSIN DEPARTMENT OF AGRICULTURE TRADE AND CONSUMER PROTECTION

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WHAT IS NUTRIENT MANAGEMENT?



4R Principles of Nutrient Stewardship



RIGHT SOURCE

Matches fertilizer type to crop needs.



RIGHT RATE

Matches amount of fertilizer to crop needs.



RIGHT TIME

Makes nutrients available when crops need them.



RIGHT PLACE

Keeps nutrients where crops can use them.

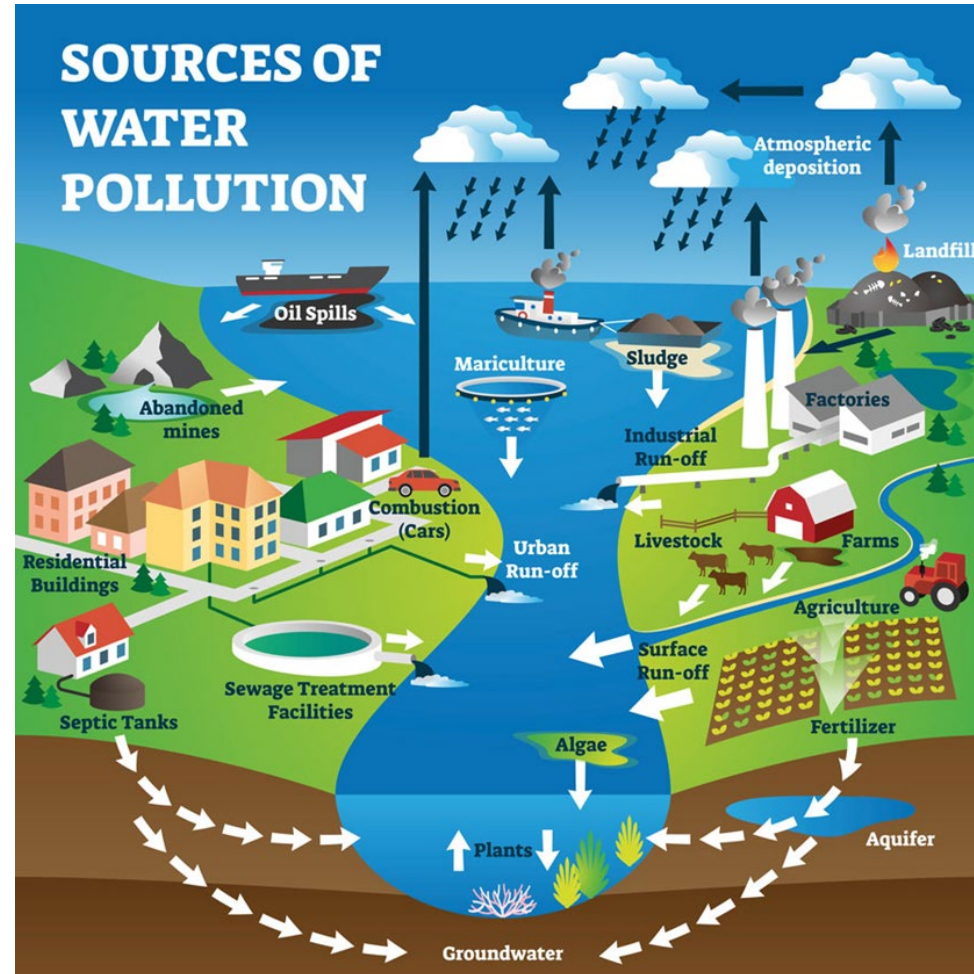
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GOALS OF NUTRIENT MANAGEMENT



USING NUTRIENT MANAGEMENT TO: REDUCE SURFACE AND GROUNDWATER CONTAMINATION



USING NUTRIENT MANAGEMENT TO: MANAGE MANURE APPLICATIONS



USING NUTRIENT MANAGEMENT TO: BETTER MANAGE FERTILIZER AND OTHER INPUT COSTS

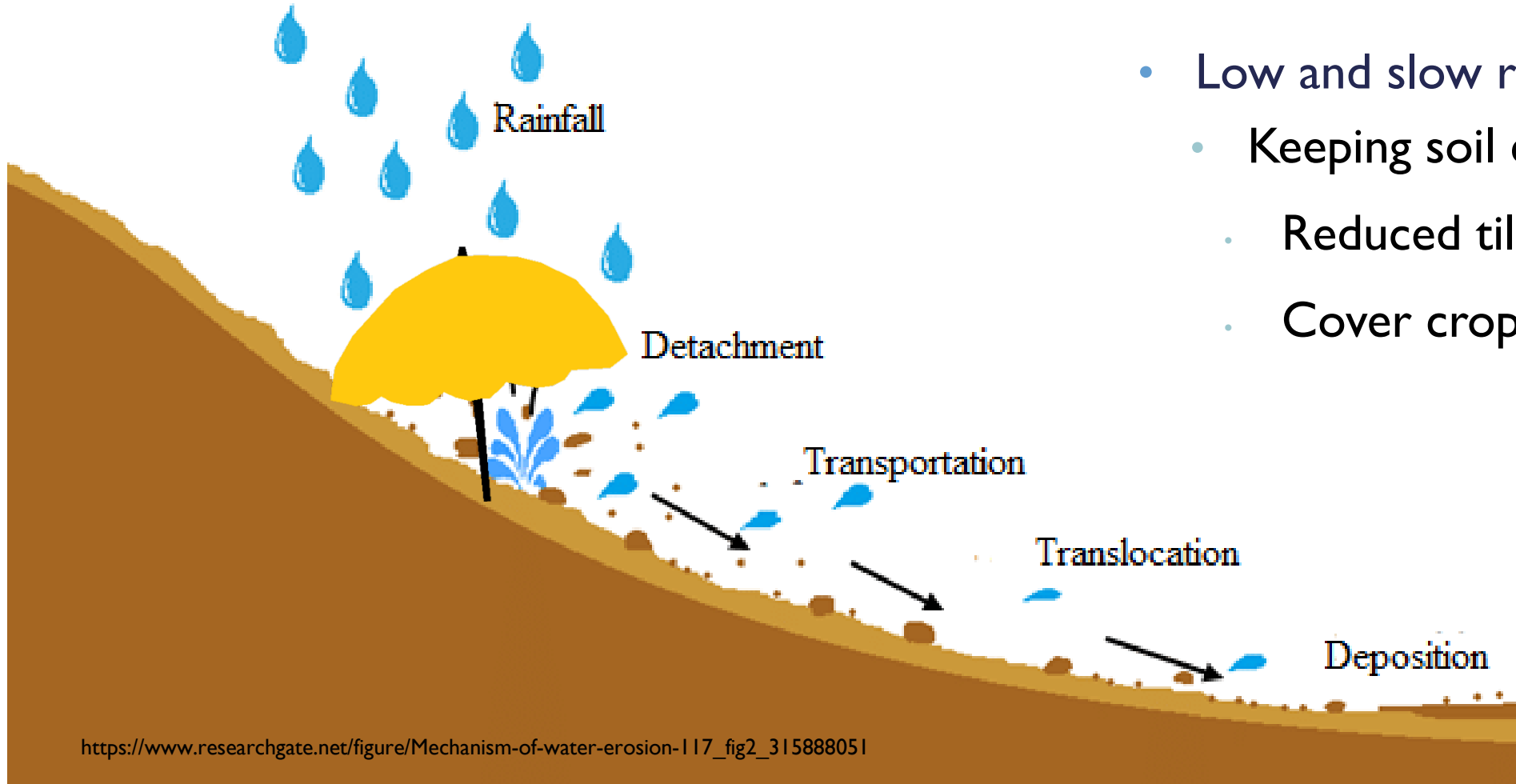
Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin

Carrie A.M. Laboski and John B. Peters

- Knowing crop's nutrient needs
- Soil Results - snapshot of soils nutrient holding capacity



USING NUTRIENT MANAGEMENT TO: MANAGE ON FARM SOIL EROSION



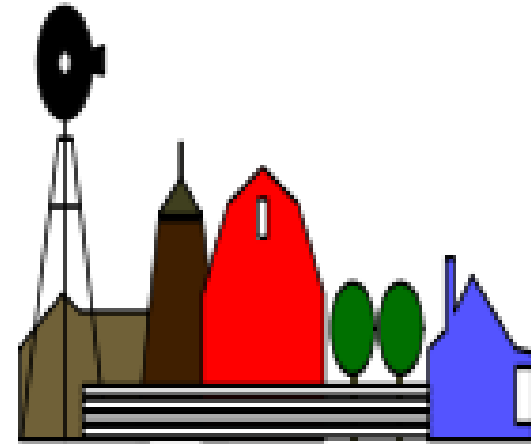
- Low and slow reduces erosion
- Keeping soil covered
- Reduced tillage
- Cover crops

https://www.researchgate.net/figure/Mechanism-of-water-erosion-117_fig2_315888051



NUTRIENT MANAGEMENT IN WISCONSIN

- Wisconsin has a long history of effort in Nutrient Management Planning.
- Documented efforts going back as far as 1991.
- Over the years, the standards have been updated and acres planned have grown.
- SnapPlus was built out of a need.



In 1996, 265 Wisconsin farmers in 28 counties received nutrient management plans on a total of 75,767 acres.



1990s: Nutrient Management Focus on Nitrogen

- **Annual N, P, K** budgeting to meet recommendations

Also

- Soil loss should be to T (tolerable levels)
- Avoiding high runoff risk manure applications



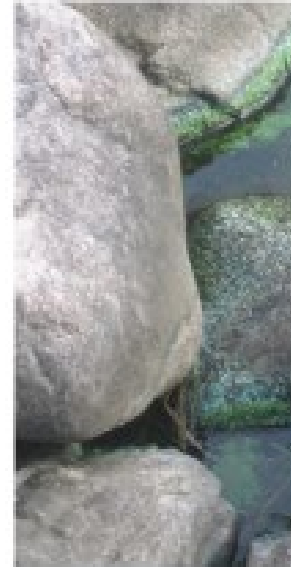
Spreadsheet software that allowed people to do annual application planning



2000'S PHOSPHORUS MANAGEMENT STRATEGIES REQUIRED 2005 ADDITION OF RUSLE 2 AND WI P INDEX



NRCS National requirement for state 590s to address over-application of P with livestock manures



Statewide concern water quality impairments from excess phosphorus



SNAPPLUS TODAY

WHAT INFORMATION DOES SNAPPLUS NEED?



Current soil tests from DATCP certified lab

- Samples need to be pulled every four years
- One sample for every five acres



Field locations

- Identify soil type and potential application restrictions



Animal information

- Type of animals
- How many animals
- Manure storage



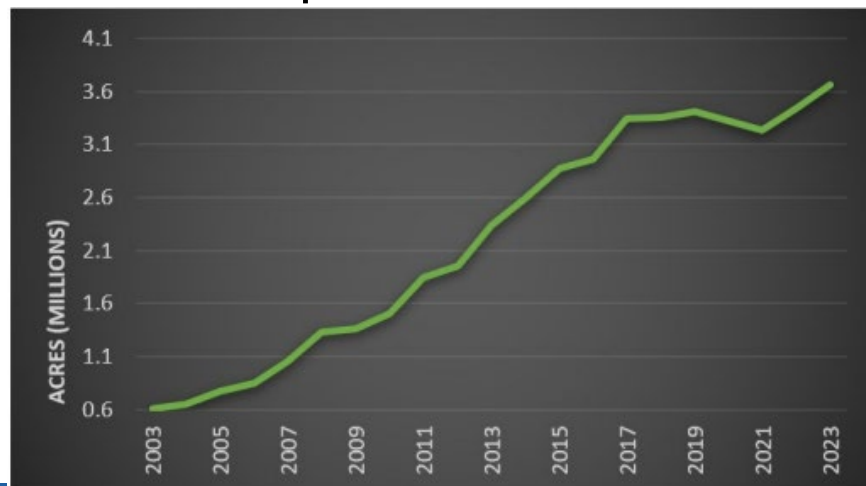
Cropping information

- Crop
- Yield goal
- Tillage
- Applications



NUTRIENT MANAGEMENT IN WISCONSIN

- All landowners who are applying nutrients whether commercial fertilizer or manure are required to have a nutrient management plan.
- Currently, 3.45 million acres are covered by a nutrient management plan.
 - 37.3% of harvestable cropland
- 7,599 plans submitted in 2022
 - Of those, 1,708 plans are farmer written.



NMP Numbers	2022	2023
NM Plans reported by WI counties	7,599	7,562
Statewide Acres	3.49 mil	3.66 mil
Percent of WI cropland covered by a plan	37.3%	41.8%
Farmer-written plans	1,708	1,711



LEGAL OVERVIEW

Ch. 281 of State Statutes [\[281.16 \(3\)\]](#) – DNR will set the *performance standards* and DATCP will develop and disseminate the *technical standards* to implement the performance standards.

Ch. 92 [\[92.14 \(2\)\]](#) establishes the Soil and Water Resource Management Program



WISCONSIN'S NUTRIENT MANAGEMENT RULES:

NR151 (DNR)

- NR151.07 (3) – Manure, commercial fertilizer, and other nutrients shall be applied in conformance with a nutrient management plan.

ATCP50 (DATCP)

- ATCP50.04 (3) - Nutrient Management Plan

Conservation Practices (DATCP/NRCS/Counties)

- NRCS Practice Standards – 590 (Nutrient Management)



WHY MIGHT SOMEONE NEED A NUTRIENT MANAGEMENT PLAN?



To meet compliance with NR 151 Agricultural Performance Standards



Landowner has received cost-share for a nutrient management plan or manure storage



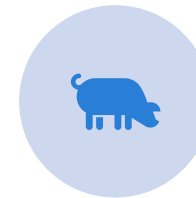
County has a manure storage ordinance that requires a nutrient management plan



Landowner participates in the Farmland Preservation tax credit program



County Livestock Siting Permits require a nutrient management plan



Farm is over 1000 animal units and is required to have a Wisconsin Pollutant Discharge Elimination System (WPDES) permit from DNR to operate.



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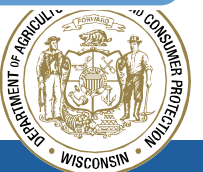
Participation in federal conservation programs like EQIP (NRCS)

Reducing nutrient losses to protect water quality

Managing fertilizer and manure applications efficiently

Supporting sustainable farming practices

Improving soil health and crop productivity



Thank You!



Andrea Topper

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(608) 405-0235 | andrea.topper@wisconsin.gov