From Survey to Strategies: Tailoring Programs to Address Nonpoint Source Contamination

Extension
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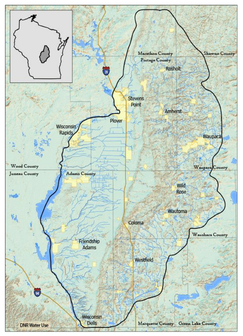
Objectives

- What are vegetable producers' awareness levels, attitudes, constraints, capacity, and behaviors about water quality and conservation practices that could improve water quality?
- How to address producers' needs on water quality with education & outreach?

Study Area

Wisconsin Central Sands Regions



- This area is vital for agriculture, especially high-value vegetable crops like potatoes, contributing to the state's economy.
- The sandy soil that supports agriculture also poses risks, as high nitrogen inputs combined with permeable soils and heavy rainfalls increase nitrate leaching, impacting water quality.

Context

- A total of 12 participants, representing 91,452 operating acres and 18 different crops, took part in the study.
- Crop rotation lengths varied from 3 to 7 years.

Social Indicator Findings

Attitude

- **100%** of participants agreed or strongly agreed that "It is my personal responsibility to help protect water quality".
- **75%** of participants agreed that "I would be willing to change management practices to improve water quality".

Awareness

- **100%** of participants rated the quality of groundwater and surface water as good or very good
- **67%** of participants viewed contaminated drinking water as a problem in their area

> ***"NITRATE AT MY HOUSE ARE A BIT HIGH, BUT I DON'T CARE."***

Behavior

- Common practices being implemented
  - Rotate crops to manage pests, and maintain/improve soil health
  - Manage irrigation water to reduce erosion
  - Establish vegetation to maintain/protect streambank and/or shoreline
  - Rotate crops to improve soil health
  - Use cover crops for erosion protection, soil improvement, and nutrient management

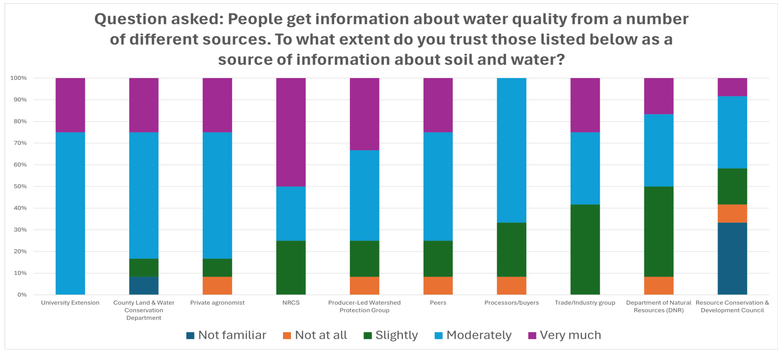
> ***"PEOPLE OUTSIDE OF OUR COMMUNITY DON'T BELIEVE WE'RE IMPLEMENTING PRACTICES ENOUGH OR AT ALL."***

- Practices identified as not relevant to operations
  - Converting unproductive fields to permanent cover
  - Restore/enhance wetlands
  - Avoid fall applications of manure or N fertilizer
  - Establish vegetation to maintain and protect streambank or shoreline

Constraints

In general, how much does each issue limit your ability to change management practices?
1) Concerns about reduced yields
2) Concerns about reduced profitability of my overall farm operation
3) Lack of available information about a practice / Logistical complexity of managing or adding conservation practices
4) Don't want to participate in a government program / Contract with processor
5) Requirements or restrictions of government programs

Trust



Survey to Action

Outreach & Programming

- Nitrate leaching and nutrient management workshops with agronomists
- Educational program focused on nitrate in irrigation water
- Information the formation of a new Producer-Led Watershed Protection Group

Summary

Results

- Data was shared to guide nonpoint source and watershed management projects and educational programming
- Educators gained a better understanding of the system and built relationships with growers

Takeaways

- To effectively manage nonpoint source water pollution, it's essential to consider both the environmental factors and the human behaviors that affect the environment.

> ***"THIS WAS A POSITIVE EFFORT AND I HOPE GOALS ARE CREATED IN COLLABORATION WITH THE GROWER BASE."***