Water & Drainage...

Ag producers know how water works—there's either too much of it or not enough. They need a way to control water; to fine-tune water delivery on THEIR terms.

Drainage Water Management holds water in root zones when crops need it and drains it when there's too much. Simple.

It might be time to consider adding Drainage Water Management to your operation. Talk to NRCS today. See how well DWM techniques could work for you!

DWM Benefits...

- Reduce loading of nutrient pathogens and/or pesticides into the drainage system and off the farm
- Improve plant/crop productivity & profitability
- Reduce oxidation of soil
 organic matter
- Provide seasonal wildlife habitat
- Prevent leaking of manure into tile drains during land application by raising riser boards.

The Concept Defined...

For years, talk of the Gulf's "Dead Zone" pinned a large portion of ecological blame on ag production in the Midwest.

For decades though, thousands of conservation farms with sloping and steep ground diligently used conservation practices and techniques to reduce soil erosion, minimize nutrient loads, and improve water quality.

Here now is a way for producers with essentially flat ground (.5 or 1% and flatter) to join the fight against excess Nitrate runoff and use this new water quality solution on the farm.

It's called Drainage Water Management, or "DWM" for short—and it's an NRCS approved conservation engineering practice that eligible landowners can receive technical & financial assistance to install through the Environmental Quality Incentives Program (EQIP).

DWM works! It improves water quality and it may increase crop production as well.

Sound like an option for your operation? Call your local NRCS office or visit www.nrcs.usda.gov to learn more.



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Drainage Water Management





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Looking Back....

Historically, subsurface tile drainage made profitable crop production possible here on our State's flat landscape. One unwanted byproduct of this process is excess nutrients—nitrates and phosphorous—that ultimately enter creeks and streams through tile drain water and negatively impact the environment.

The Big Question...

How can we better use existing tile lines in a way that makes them part of the **solution** and not part of the **problem**?

According to the Natural Resources Conservation Service (NRCS) and University researchers, agricultural producers can use concepts like Drainage Water Management, or DWM.

What is DWM?

DWM manages the timing and amount of water discharged from agricultural drainage systems. The process is based on the premise that identical drainage intensity is not required at all times during the year.

Water quality benefits are possible by minimizing unnecessary tile drainage and reducing nitrate amounts that leave farm fields. DWM systems can also retain water needed for late season crop production.

DWM systems work best on very flat ground—a fact that eliminates farms with steep or sloped ground. Even so, DWM still offers valuable options to many landowners.

These are the producers NRCS conservation specialists can assist by developing Drainage Water Management Plans.

> Have local Contractors

install DWM

structures on

your ground.



How Does It Work?

To make it possible for operators to truly manage water table levels, they simply retrofit an existing tile system with a **water control structure**. Each structure controls an elevation-defined area, based on lay of the land and the tile system layout already in place. Structures are small, reasonably priced, and operating instructions are fairly simple:

- **1** Before tillage, remove riser boards to drop water table levels about 10 days prior to planting fieldwork/operations.
- 2 During the growing season, stack riser boards to raise water table high enough to provide capillary water to crop root zone.
- **3** Before harvest, remove boards to lower water table 10 days before Fall fieldwork.
- After harvest, raise water table up even further—near ground surface—to hold nutrients in the field/soil over winter.

NRCS Conservation Solutions... Drainage Water Management



Flow Control Mechanism