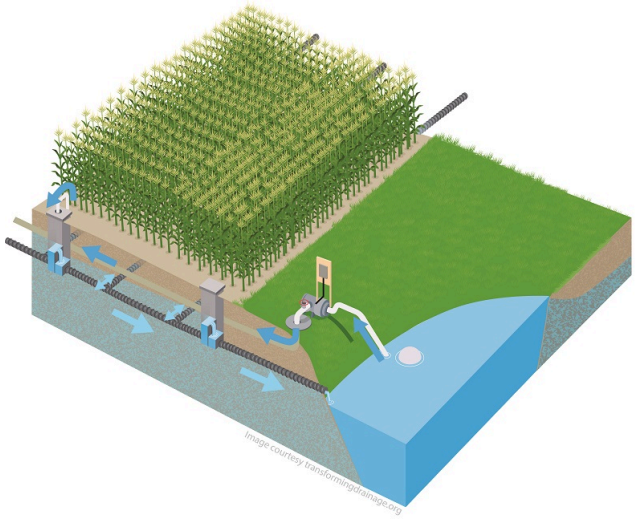
ADMC Agricultural Drainage Management Coalition

FACT SHEET

Subsurface Irrigation

ABOUT

Subsurface Irrigation combines drainage water management and irrigation. This is done by using the drainage system to remove excess water during periods of excessive moisture and then by pumping water back through the same drainage system to irrigate from the subsoil when needed.



Subirrigation Schematic

BASICS

Site requirements

- Slopes <1 - 2%
- 65% narrower lateral spacing
- Soil hydraulic conductivity at 20 to 40 inch depth > 0.5 inch/hour
- Restrictive layer to limit deep seepage, suitable on poorly to very poorly drained soils. Somewhat poorly drained is considered partially suitable

Performance

- 12 - 27% yield increase in medium textured soils
- 8% average yield increase in all soil types
- Reduced yield variability

Footprint

A water level control structure is needed to manage the outlet depth of the main. The practice will need to be near a water source like a storage pond or drainage ditch. Then a pump with a power source and irrigation supply lines are needed to complete the practice.

Maintenance

The water control structures will need to be adjusted if used to manage the water table depths. Soil moisture or crop conditions should be tracked to determine when irrigation is needed. If a pond is being used, vegetation near the pumping intakes should be controlled.

Reduces year to year yield variability

Yield increases of 12 - 27%

- Water storage
- Pond storage provides habitat

INTERACT WITH ADMC

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NRCS CPS 443 Irrigation System, Surface and Subsurface