



INDIANA CONSERVATION CHOICES Irrigation Management

Conservation practices help improve soil health, reduce soil erosion, improve water quality, and provide other natural resource benefits.

INDIANA NATURAL RESOURCES CONSERVATION SERVICE

February 2020

Healthy soils with good and stable aggregation, enhanced organic matter levels, and limited or no compaction go a long way towards improving water efficiency on your farm. In addition, reduced tillage with residues on the surface helps to enhance water infiltration and reduce evaporation losses from the soil. Cover crops, while using water for their growth, can act as a water-conserving surface mulch once they are suppressed. And if it doesn't rain for a few weeks, crops on even the best soils will start to show drought stress. Even in humid regions there can be stretches of dry weather that cause stress and reduce crop yield or quality. Irrigation, therefore, is an essential part of growing crops in many regions of the world. But the healthier the soil you have, the less irrigation water that will be needed because natural rainfall will be used more efficiently.



Monitoring soil conditions



No-till fields



Apply Gypsum

FOR GOOD IRRIGATION MANAGEMENT:

- » Build soil to be more resistant to crusting and drought by increasing organic matter contents, aggregation, and rooting volume.
- » Use water conservatively: Consider deficit irrigation scheduling.
- » Monitor soil, plant, and weather for precise estimation of irrigation needs.
- » Use precise water application rates; do not over-irrigate.
- » Use water storage systems to accumulate rainfall when feasible.
- » Use good-quality recycled wastewater when available.
- » Reduce tillage and leave surface residues.
- » Use mulches to reduce surface evaporation.
- » Integrate water and fertilizer management to reduce losses.
- » Prevent salt or sodium accumulation: Leach salt through drainage, and reduce sodium contents through gypsum application.

For more information about irrigation management visit:

www.nrcs.usda.gov/Indiana