



Indiana Department of Natural Resources

## DIVISION OF WATER

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# Irrigation Management Practices For Conserving Water, Nutrients & Energy

Knowledge of irrigation management practices allows you to take a more scientific approach to the irrigation process, achieve greater control, and begin to conserve water without compromising crop yield. Basic to this knowledge is understanding your system's capacity to deliver water. All irrigators need to know the net water application rate of their system, the irrigation guidelines for the specific crop being grown, and how to measure soil moisture levels. Good irrigation management requires one to know how much water the irrigation system delivers to a crop's roots over a given period of time, allowing adjustments to be made to the duration and frequency of application in order to maintain a balance between water and nutrients added to the soil, and the amount plants actually use.

### Management Practices for Conservation:

- Whole System Maintenance—Identification of leaks in delivery and distribution, preservation of optimal operation pressure, maintaining gauges in good working order, testing regularly for application uniformity, system calibration, identification and repair of pressure and nozzle problems;
- Consistent Scheduling—Effective timing of applications for reducing evaporation rates;
- Utilize low pressure or low volume irrigation techniques with more efficient application practices;
- Utilize low elevation spray and larger drops settings to prevent drift and evaporation;
- Soil Management—Moisture measurement and monitoring to reduce run-off and increase crop water & nutrient utilization;
- Track seasonal crop water use;
- Repair or replace inefficient pumping plants;
- Provide sufficient soil storage capacity in the event rainfall follows irrigation;
- Know your crop's water needs at different stages of development and irrigate accordingly.



For more information regarding water conservation & energy savings visit the Division of Water website at:

[www.in.gov/dnr/water/7113.htm](http://www.in.gov/dnr/water/7113.htm)