# What are your fellow irrigators doing to conserve water?

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2022 marks the second year that agricultural irrigators in Minnesota voluntarily completed the Department of Natural Resources (DNR) Water Conservation Report. The 2022 report reflects the water conservation practices that were implemented during the drought of 2021.

All agricultural irrigators are required to report their annual water use through the Minnesota DNR Permitting and Reporting System (MPARS) and pay an annual water use fee. Beginning in 2021, the DNR also offered farmers an opportunity to conduct a self-audit of their water conservation practices. This quick, free survey helps you think about all aspects of your water use and how you might improve efficiency. Just as every business should periodically audit their bookkeeping and energy use, it is a good practice to examine your water use and consider how you can reduce the amount of water used without negatively affecting your crops.

The Water Conservation Report is powered by ESPWater, a software system that is similar to one businesses across the state use to evaluate their energy savings. The checkboxes are easy to complete. The report systematically evaluate all aspects of agricultural water use and provides ideas for improving water efficiency.

The questions in the Water Conservation Report were developed in cooperation with irrigators, the Minnesota Department of Agriculture, staff from Soil and Water Conservation Districts, and the University of Minnesota Department of Soil, Water, and Climate. Questions examine wells, pumps, meters, irrigation equipment and system design, seed selection and plant management, maintenance, control systems, scheduling, training and education.

Here are some of the highlights from the 2022 Water Conservation Report by Agricultural Irrigators:

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| **Irrigation Equipment Efficiency - Top measures during 2021** |
| 52% have end-gun management |
| 46% can shut off water to unused areas |
| 45% have low volume/pressure nozzles |
| 42% have new or better nozzles |
| 28% have a variable rate distribution system installed with speed control, zone control or both |

**Maintenance - Top measures 2021**

* Leak detection and repair
* Off-peak irrigating
* Installed backflow prevention system
* Test sprinkler application rates and uniformity

**Moisture Monitoring - Top measures 2021**

* Regularly scout crops for moisture
* Rain gauges installed – three or more per field
* Soil testing for water holding capacity

**Irrigation Scheduling - Top measures 2021**

* Crop-based irrigation scheduling method
* Checkbook method
* Daily ET (evapotranspiration) monitoring

**Plant and Soil Management to Save Water – Top measures 2021**

* Crop rotation – using some crops with lower water needs
* Use drought tolerant/lower water-use seed
* Use a soil test to determine fertilizer needs
* Regularly work to improve soil health – cover crops, improve organic matter
* Regularly scout crops, follow integrated Pest Management and Best Management Practices

Water is an essential input for agricultural production, which in turn plays an important role in global food security. Irrigated agriculture is routinely more productive than rain-fed agricultural land, especially in sandy coarse-textured soils. Whether you’re in a water-rich part of Minnesota or an area with water sustainability challenges, it is up to each individual farmer to increase their water stewardship efforts. What are you doing to use less water and still produce abundant crops?

You are encouraged to increase your water use efficiency each year and track your successes using the Minnesota DNR Water Conservation Reporting System. Watch for emails in November and January reminding you to complete the report by March 30. Assistance is available if you are unfamiliar with electronic reporting. Best wishes for a safe and successful harvest.