

Where To Learn More

Learn more about how agriculture practices can affect the environment and play a role in conservation at: nrcs.usda.gov* and extension.org*

Find out about EPA's Agricultural Assistance Center: epa.gov/agriculture

Learn more about protecting drinking water sources at: <http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/index.cfm> and sourcewatercollaborative.org*

Get quick facts about water, play interactive games, and test your water knowledge with the US Geological Survey's site: ga.water.usgs.gov/edu*

Learn about conservation tillage, buffer strips, nutrient management plans and more at: conservationinformation.org*

Find teaching resources at: epa.gov/students/index.html

Learn more about effective weed and pest management at: ipminstitute.org*

Find resources on how to retain and rebuild high quality soils and clean water: extension.iastate.edu/ilf/*

See in-depth information on best practices for source water protection: cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Publications&view=filter&document_type_id=103

Learn more about disease prevention and proper use of antimicrobials for beef, dairy, pork and poultry producers: www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/JudiciousUseofAntimicrobials/default.htm*

Learn about how groundwater is contaminated and what you and your community can do to help protect this vital resource: groundwater.org/gi/docs/GWBASICS2.pdf*

Find out more about septic system care at: epa.gov/owm/septic/pubs/homeowner_guide_long.pdf

Learn more about groundwater and water well stewardship at: www.wellowner.org*

* Not EPA websites

Source Water Protection Online ffa.learn.com For Teachers and Students

Several organizations assisted the National FFA Organization in developing educational lessons aimed at over one million high school Ag Science students. Available online at ffa.learn.com, 20 source water protection lessons provide information and activities to educate future agricultural leaders about the importance of protecting drinking water sources. Advisory members include:

- United States Department of Agriculture
- United States Environmental Protection Agency
- United States Geological Survey
- National Association of Conservation Districts
- The Groundwater Foundation
- University of Wisconsin Environmental Resources Center



Your Water. Your Decision.



A brief guide for tomorrow's agricultural leaders.



From field to faucet: Your water. Your decision.

In agriculture, the way you work affects your drinking water. From fertilizer applications to livestock management, decisions in the field or on the farmstead can affect the water in your faucet. That's why each generation in agriculture uses better practices to improve water quality for future generations. Learn today's best practices now, so you and your neighbors can drink in the results.

Why learn more?

- ▶ **You can save money.** Practices that protect the environment not only make farms more sustainable (such as protecting soil quality), they also can be more cost effective.
- ▶ **You can help protect the health of your family and community.** As you reduce agricultural runoff and leaching, major sources of sediment and nutrient pollution in water, you can protect your family's and your community's health.
- ▶ **You can make a difference.** By doing your part, you can help ensure that future generations will be able to enjoy the benefits of clean and safe water.
- ▶ **You can get help.** Loans and grants may be available to help. (Find a USDA service center at nrns.usda.gov and see grants.gov for some possibilities).

Nutrient Management

Reducing runoff and leaching of nutrients (nitrogen and phosphorus from fertilizer/manure) can decrease damage to streams, rivers, lakes, underground drinking water sources, and even oceans. Helpful tips: Apply nutrients at the right rate by using soil tests and realistic yield goals, at the right time (as close to crop uptake as possible and by avoiding spreading just before a rain or snow), with the right method (incorporating as soon after application as possible), and the right form.

Conservation Buffers

Planting trees, shrubs and grass around fields, especially those that border water bodies, helps filter pollutants before they reach sources of drinking water.

Conservation Tillage and Crop Rotation

Reducing tillage reduces erosion and soil compaction, builds soil organic matter, and increases the soil's moisture-holding capacity. Plant perennials in vulnerable areas to reduce soil erosion. Rotate crops to break pest cycles, increase soil quality, and reduce need for added nitrogen. In very highly erodible areas, consider taking land out of production and planting native grasses or trees.

Good Livestock Management

Keeping animals and their waste out of streams, rivers, and lakes keeps associated pollutants out of the water supply and protects stream banks. Consider fencing off or bridging streams and providing an alternate water source. Apply and store manure according to a comprehensive nutrient management plan. Manage grazing to maintain plant cover.

Integrated Pest Management

Using natural systems and careful planning for pest control – what's known as Integrated Pest Management – limits pesticide use to protect the environment and improve financial returns. Consider a four-tier approach: Set a reasonable threshold for action that may allow for some pests; carefully monitor and identify pests so you can react appropriately; prevent potential problems by managing what, when and where crops are grown; and evaluate the return on your investment in pest control, both in terms of costs and associated risks.

Drainage Water Management

Help prevent degradation of the water in local streams and lakes by reducing nutrient loads from artificial drainage (tile drains, ditches) that drain agricultural fields. Consider installing controlled drainage, such as two-stage ditches, or constructed wetlands.

Efficient Irrigation

Think and plan before irrigating crops. To save water and develop the most efficient and effective irrigation strategy, determine when and how much to irrigate by measuring soil moisture, calculating crop water use, and making decisions based on the weather forecast. Also, consider investing in more efficient technology, such as drip irrigation.

Smart Septic Tanks

Regularly pumping and inspecting septic tanks can prevent surface and groundwater contamination. Depending on your type of septic system, experts recommend professional inspections every one to three years, and having your tank pumped every three to five years. Hazardous waste is another concern, and can pollute groundwater. Even small amounts of paints, thinners, oil, pesticides, and other chemicals can damage the biological digestion in a septic system. Properly dispose of these chemicals at a local waste facility or recycling center.

Be Groundwater Aware

Pay careful attention to the places where you mix, store and apply chemicals, such as pesticides. These substances can pose a risk to your well and the groundwater, if not properly managed. Monitor underground storage tanks for leaks and keep a safe distance between chemicals or waste and your well. Prevent contaminants from seeping into valuable underground water sources.

Find links to more information at: www.FieldtoFaucet.org