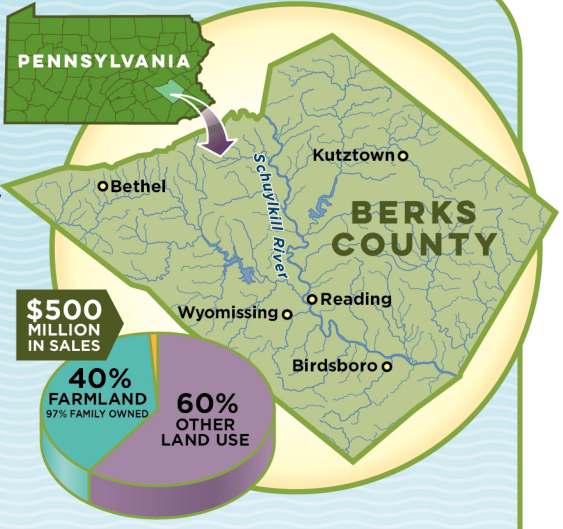


FARMS FOR CLEAN WATER



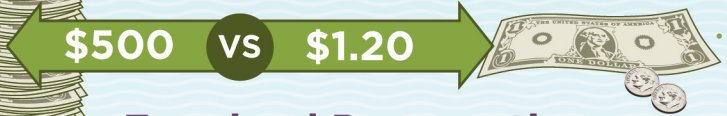
A Way of Life

Exceptionally rich soils, aided by a favorable climate and location, mean that farming is a widespread way of life in Berks County, PA. In fact, it is the number one industry in the County. Berks County is over 40% farmland, and 97% of farms are family-owned. Each year, Berks County farms sell over half a billion dollars in crops, livestock, and poultry to sustain our communities.



Farms for Clean Water

Farmland is highly valued for its productivity and its potential to have the greatest impact on water quality per dollar spent. Improving agricultural practices is one of our best investments for clean and safe water! Agricultural conservation practices can reduce the same amount of pollutants, such as nitrogen, as other solutions for as little as 0.24% of the cost.¹ **In other words, to reduce one pound of nitrogen, you could invest \$1.20 in agriculture instead of \$500 on an urban/suburban stormwater retrofit project.**

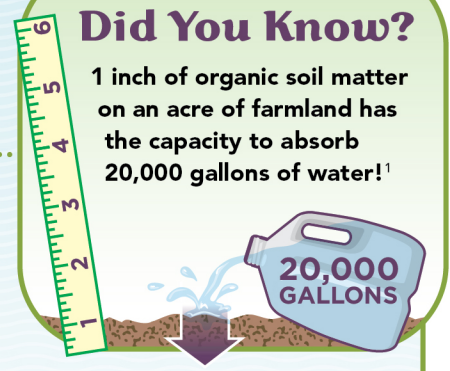


Farmland Preservation

With over 200,000 acres of farmland, Berks County has an opportunity to work with farmers to preserve land for water quality, habitat, and future production through conservation easements and restoration projects. Berks County has the **third largest** agricultural preservation of any county in the United States. In the Middle Schuylkill geography alone, there are over 75,000 acres preserved.

Did You Know?

1 inch of organic soil matter on an acre of farmland has the capacity to absorb 20,000 gallons of water!¹



Agricultural Best Management Practices (BMPs)

Another way that farms can improve their value, productivity, habitat, and water quality benefits is through restorative land practices called Best Management Practices (BMPs). Examples of BMPs include manure storage, streambank stabilization, native plants, cover crops, cattle fencing, covered barns, and more. Partners of agriculture in this region have seen that BMPs such as these can remove thousands of pounds of pollutants like nitrogen, phosphorus, and sediment. By practicing best management and restoring farmland, researchers found that **629 truckloads of sediment and 448 truckloads of manure were prevented from reaching local waterways annually between 2014 and 2018!**



Agricultural Best Management Practice (BMP) Examples

IMPROVING NUTRIENT MANAGEMENT

LIQUID MANURE STORAGE

Instead of running off into waterways, manure is held in a storage tank where it naturally removes excess nutrients, bacteria, and pathogens, and is diluted so that it can be aerated and pumped safely away. Concrete walls prevent waste from seeping into the ground, and the manure can be used later on as fertilizer.

DRY MANURE STORAGE

A sloped concrete slab with concrete walls and an overhead roof holds solid manure so that it does not seep into the ground or wash away into local streams. The manure can easily be hauled away or used as fertilizer whenever the farmer is ready.

IMPROVING STREAM CORRIDORS

RIPARIAN BUFFERS

Riparian buffers are forested strips of land, 100 feet wide, located along waterways. They help:

- Decrease concentrations of pollutants from entering waterways.
- Stabilize water channels, mitigating flooding and sediment deposition.
- Increase biodiversity within the streamside and aquatic habitat.

FENCING

Fencing is a cost-effective, low-maintenance solution to control livestock access and grazing, keeping manure and sediment out of the water and promoting productive pasture management. Fencing also protects streambanks and improves the streamside and aquatic habitats for native vegetation, birds, mammals, and fish. Keeping cattle out of streams is also better for herd health!

IMPROVING SOIL HEALTH

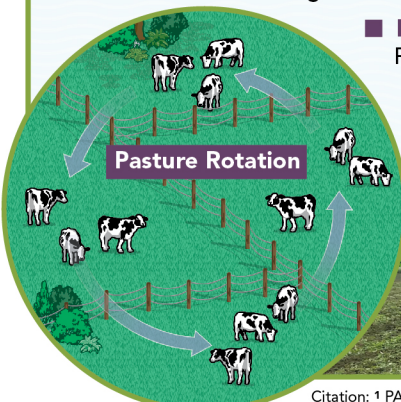
COVER CROPS

Crop and pasture lands can act like sponges when it rains, so it is best to make sure that farmland is covered with some sort of vegetation or crop during different times of the year. Cover crops increase overall farm profitability through soil and water improvements, and they also benefit water quality by:

- Reducing nutrient and pesticide runoff from farms by more than 50%.
- Reducing pathogens from farms into waterbodies by 60%.
- Reducing sediment from farms into waterbodies by 75%.
- Reducing on-farm soil erosion events by 90%.¹

PASTURE ROTATION

Rotational grazing is another way that farms can reduce runoff and soil erosion and improve soil and herd health. Rotational grazing is more profitable for farmers due to reduced feed, fuel, labor, and veterinary costs.

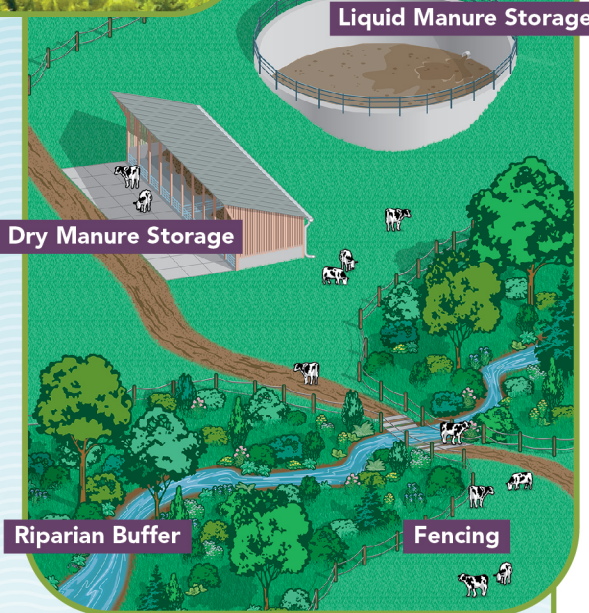
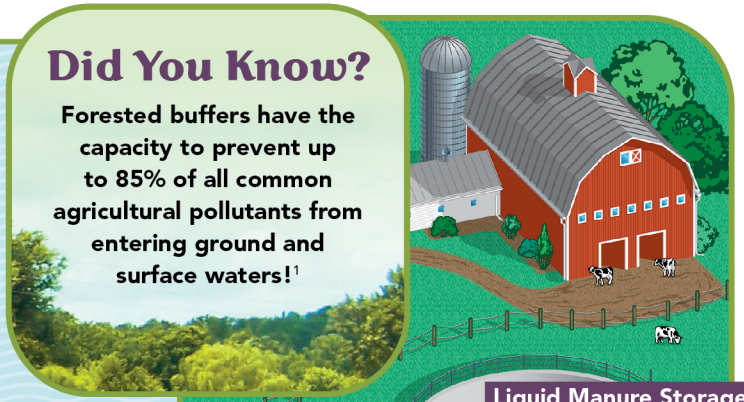


Dirt Field VS Cover Crops

Citation: ¹ PASA (2020) "Water Farming – Managing Agricultural Lands for Clean & Safe Water"

Did You Know?

Forested buffers have the capacity to prevent up to 85% of all common agricultural pollutants from entering ground and surface waters!¹



Financial Support is Available!

The following regional organizations have programs that assist local farms in designing and installing BMPs and improving farms both economically and environmentally:

- **Berks County – Agricultural Easement Program** (co.berks.pa.us)
- **Department of Conservation and Natural Resources** (dcnr.pa.gov)
- **National Fish and Wildlife Foundation** (nfwf.org/apply-grant)
- **PA Association of Conservation Districts** (pacd.org)
- **PA Department of Agriculture** (agriculture.pa.gov)
- **Schuylkill River Restoration Fund** (schuylkillriver.org)
- **U.S. Department of Agriculture – Natural Resource Conservation Service** (nrsc.usda.gov)
- **WeConservePA Conservation Easement Assistance Program** (conservationtools.org/ceap)

