



Chesapeake Bay Program
A Watershed Partnership

Backgrounder

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There are over 87,000 working farms throughout the Chesapeake Bay's 64,000 square mile watershed.

Farming practices in the watershed include: dairy and beef cattle, poultry operations, grain and produce production and tree and shrub nurseries.

Fertilizing soil provides crops with the nutrients they need to grow. When more fertilizer is applied to the soil than the crops need, excess nutrients can eventually wash into the local streams and rivers.

Manure is often applied to cropland as a form of fertilizer. Manure often contains nutrients, bacteria and pathogens, all of which can get into local rivers and streams. About one-half of the excess nutrients from agriculture come from manure and chicken litter.

Agricultural cropland and animal operations are responsible for about 40 percent of the nitrogen, 45 percent of the phosphorus, and 62 percent of the sediment loads entering the Chesapeake Bay annually.

Agriculture in the Chesapeake Bay Watershed

In the Chesapeake Bay watershed, more than one quarter of the land is devoted to agricultural practices. In growing crops and maintaining animal operations, daily agricultural activities sometimes impact environmental conditions. Fertilizing, tilling, irrigating cropland and managing animal manure are important for maintaining a productive farm, but all have secondary impacts on the environment.

The Bay Program is Working to Reduce Pollution from Agriculture

Because agriculture is such a significant part of the culture and heritage in the region, it is important that Bay Program partners work with members of the agricultural community to reach solutions that help to restore the Bay and support local farming operations. The farming community has dedicated a significant amount of work to increasing the acreage of land under nutrient management plans in the watershed and implementing best management practices to reduce the amount of nutrients reaching the Bay. Bay Program partners continue to build upon that success by:

- building partnerships and markets for agricultural waste
- developing and implementing agricultural best management practices
- maintaining an Agricultural Nutrient Reduction Workgroup



Farm Bill Programs in the Bay Watershed

Along with private funds and state programs, the Federal Farm Bill authorizes programs that are the primary source of funding for implementation of conservation practices. Current Farm Bill funding to the Chesapeake Bay region addresses about one fourth of the estimated Federal contribution of \$262.5 million needed annually for agricultural conservation measures to meet state water quality goals. Farmers are willing to implement the available solutions to protect water quality but lack the funding to do so while remaining economically viable.

In 2005, the non-federal members of the Chesapeake Executive Council along with the headwater states of Delaware and West Virginia published a 16-page report outlining improvements needed to conservation programs in the Farm Bill. The top five priorities listed in the report are:

- The establishment of a nationwide Regional Stewardship Program
- Full implementation of the Conservation Security Program nationwide
- Targeting of funds to maximize environmental benefits and ecological services
- Increased support for the economic viability of agriculture
- Increased funding and technical assistance for conservation and conservation related programs.

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The Conservation Security Program (CSP) and Conservation Technical Assistance (CTA)

CSP is one of the most important programs administered by the USDA Natural Resources Conservation Service in the Chesapeake Bay watershed. This voluntary program supports ongoing stewardship of private agricultural lands by providing payments for maintaining and enhancing natural resources. CSP identifies and rewards those farmers and ranchers who are meeting the highest standards of conservation and environmental management on their operations.

The CTA program provides the technical capability, including direct conservation planning, design, and implementation assistance that helps farmers and ranchers plan and apply conservation on the land.

Agricultural Best Management Practices (BMPs)

These BMPs include a range of different activities that reduce or eliminate soil loss, prevent runoff, and provide for the proper application rates of nutrients to cropland.

- Vegetated buffer strips at the edge of crop fields
- Conservation tillage- any tillage planting system that leaves at least 30% of the field surface covered with crop residue after planting is completed and involves reduced or minimum tillage.
- Strip cropping - a technique in which alternate strips of row crop or small grain and hay are planted in the same field. There are three main types of this BMP: contour strip cropping, field strip cropping and buffer strip cropping. This BMP is used to control both wind and water erosion.
- Diversion
- Waterways
- Soil conservation and water quality planning
- Nutrient Management planning
- Stream bank fencing

Bay Farms- Carrying the Load

In part because they are so cost-effective, the Bay jurisdictions are relying on future reductions from agricultural lands for more than half of the remaining nutrient reductions needed to meet restoration goals. The economics of agriculture require that significant funding and technical assistance will be needed for this sector to meet its restoration goals.

Trends in implementation of BMPs and control technologies, and the resultant impacts on loads to the Chesapeake Bay, are useful in understanding trends in water quality and overall ecosystem health. Individual source indicators illustrate the effects of tracked historic implementation of pollutant controls and make comparisons to what is currently forecasted to be needed from the sources to meet restoration goals. Tracking and reporting these impacts is one measure used to clearly assess progress toward meeting Tributary Strategy objectives so effective management actions can be targeted (including addressing funding gaps) that ultimately achieve jurisdictional-adopted water quality standards.

