UNDERSTANDING

Agricultural Best Management Practices (BMPs)

THE FOLLOWING RESOURCES ARE AVAILABLE TO HELP IMPLEMENT AGRICULTURAL BMPS:

Massachusetts Agricultural Environmental Enhancement Program (AEEP)—offers reimbursement funds up to $25,000 for farmers that install BMPs that mitigate or prevent impacts on natural resources including water quality.

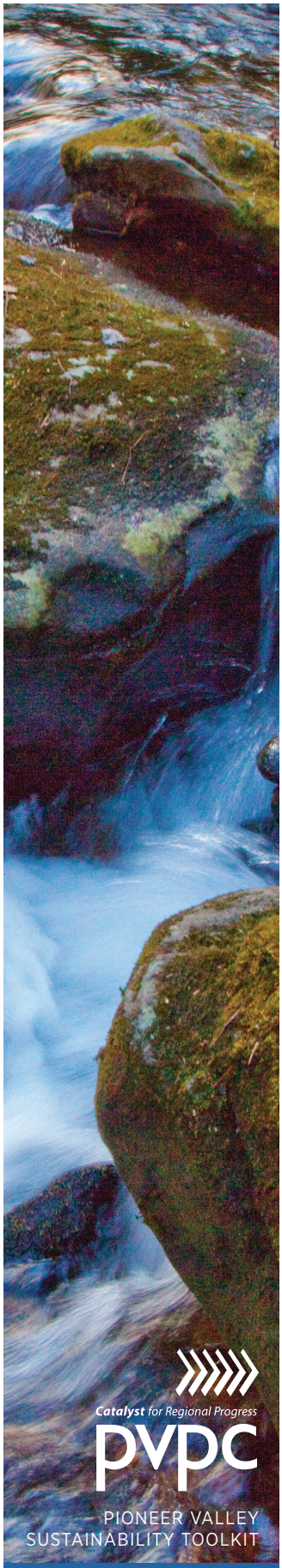
www.mass.gov/agr/programs/aeep/index.htm

Section 319 Nonpoint Source Competitive Grants Program - for projects that address the prevention, control, and abatement of nonpoint source (NPS) pollution, such as agricultural runoff. A 40% match of the total project cost is required.

http://www.mass.gov/dep/water/grants.htm#sums

Massachusetts Environmental Quality Incentives Program (EQUIP) —offers technical expertise for planning and designing conservation practices that protect water along with cost share and incentive payments up to $450,000 per farm to producers that adopt water management practices.

www.ma.nrcs.usda.gov/programs/eqip.html



Farm in Buckland, MA Source: FRCOG

What are the objectives of Agricultural BMPs?

To provide guidelines for agricultural operators that address environmental concerns, such as preventing contamination of water supplies, as well as improving the productivity of the land.

Why do we need Agricultural BMPs?

Because too much of an agricultural input in the wrong place can cause water quality degradation or other environmental problems. Management practices and systems have been developed that can sustain yields and protect the natural resources that support them.

How do Agricultural BMPs work?

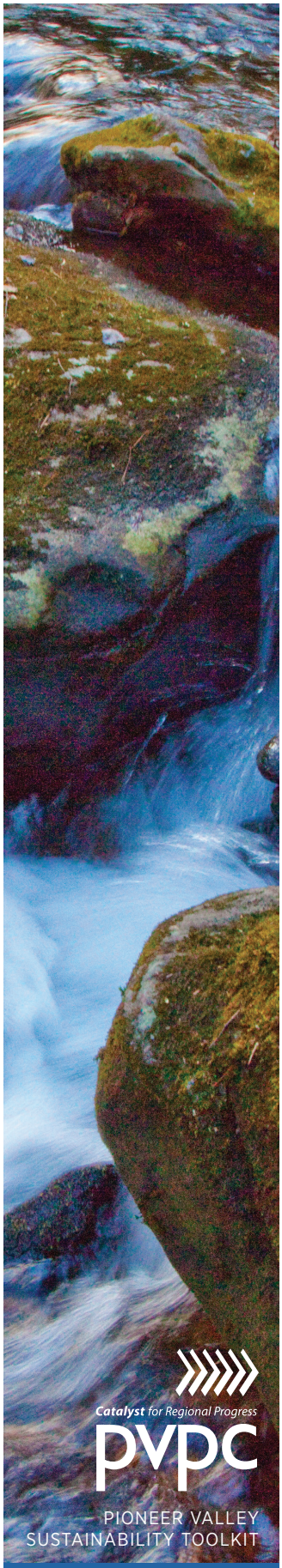
Agricultural BMPs are guidelines that farmers can choose to follow in order to help prevent or mitigate the impact of agricultural practices on natural resources. Adapting land management practices and utilizing the latest appropriate technologies can result in higher levels of economic efficiency and cropland productivity. Common Agricultural BMPs relate to conservation tillage, crop nutrient management, weed and pest management, and conservation buffers. These BMPs are easily adaptable to virtually any farming situation and can be fine-tuned to meet unique needs. The net results tend to be better soil, cleaner water and greater on-farm productivity.

Types of Agricultural BMPs:

Conservation Tillage—A system of crop production with little, if any, tillage. Leaving crop residue undisturbed for as long as possible increases organic matter, improves soil quality, increases soil productivity, and can reduce soil erosion by as much as 90 percent. The conservation tillage system reduces labor, equipment costs, and fuel use.

Crop Nutrient Management—A practice which matches nutrient availability with the plant needs by fine-tuning application rates, timing, and placement to match plant growth. Efficient crop nutrient management addresses all nutrients including manure, fertilizer, and natural mineralization. These processes reduce the risk of nutrients such as nitrogen and phosphorous making their way to streams, groundwater, and surface water. This can result in improved fish habitat, greater recreational opportunities, and reduced water treatment costs. This type of BMP can also increase profit per acre by increasing the efficiency of crop inputs and the resulting yields.

Weed and Pest Management—A comprehensive approach to on-farm management of harmful weeds and pests including resistant plants, cultural controls, soil amendments, beneficial insects, natural enemies, barriers, physical treatments, behavioral disputants, biological and conventional pesticides. Weed and pest management can help match



the best method of control with the optimum time to maximize benefits of the control. By using mechanical cultivation, pesticides, fertilizers and tillage only when necessary, growers can decrease costs and reduce the amount of sediment and polluted runoff entering lakes, streams, and rivers.

Conservation Buffers—Small areas or strips of vegetated land or wetlands designed to slow water runoff, provide shelter and stabilize riparian areas. When located in environmentally sensitive areas, buffers can filter surface and ground water before it enters streams and lakes, reduce wind erosion, reduce downstream flooding, and stabilize stream banks. Buffers can also reduce crop losses from flooding, protect soil in vulnerable areas, and provide tax incentives.

SOURCES:

Barrios, Anna. "Agriculture and Water Quality." CAE Working Paper Series. WP))-2. June 2000. American Farmland Trust's Center for Agriculture in the Environment, DeKalb, Illinois.

U.S. Department of Agriculture and Natural Resources Conservation Service. NRCS/RCA Issue Brief 9. Water Quality. March 1996.

LINKS:

For more detailed information and listings of BMPs, see the following websites.

AMERICAN FARMLAND TRUST (AFT)
http://www.farmland.org/

MASSACHUSETTS DEPARTMENT OF AGRICULTURE (MDAR)
http://www.mass.gov/agr/index.htm

MASSACHUSETTS DEPARTMENT OF FOOD AND AGRICULTURE (MFDA)
http://www.massdfa.org/

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)
http://www.nrcs.usda.gov/

FOR MORE INFORMATION, PLEASE CONTACT

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