



Best Management Practices



Farms can improve their bottom line and simultaneously make improvements to the water quality of nearby streams and wildlife habitat by:

Properly Managing Manure: By storing and composting manure, it can become a resource rather than a source of water contamination. Assistance on manure storage designs and funding is available from the Natural Resources Conservation Service and the MA Department of Food & Agriculture. In addition, by testing the soil a farmer can see which fields require fertilizers to boost crop production. In contrast to the supposition that more fertilizer is better, research at UMASS has shown the excess nutrients can actually reduce crop yield, in addition to causing water quality problems. Commercial fertilizers are also expensive.

Integrating a nutrient management plan: By testing the soil, farmers can establish which fields need to be supplemented with fertilizers. UMass' Department of Agroecology has developed a computer program to help guide farmers in the amount of manure & fertilizers to apply based on the size of their fields, soil conditions and crops. For more information contact on this free evaluation, contact: 413/577-3803.

Composting: Eliminates waste removal and provides a source of revenue for resale or use on one's own fields. For more information, contact Bear Path Farm at 413/665-2894.



Adopting Integrated Pest Management: Reduces the use of pesticides by using non-toxic solutions. For more information, contact UMass Extension's Ruth Hazzard at 413/545-3696 or Bill Coli at 413/545-1051.

Planting Cover Crops: Helps reduce soil erosion and retain valuable nutrients.

Fencing Livestock Out of Streams & Installing Alternate Water Supplies: When livestock is allowed access to streams and rivers, the animals trample the vegetation and compact the soil. The compacted soils reduce the ability of vegetation to regrow and the loss of natural vegetation reduces wildlife habitat, causes erosion and increases the ability of rain runoff carrying other pollutants to reach the streams. In the streams, the animals can disturb the bottom and impair fish habitat. Here in Massachusetts, two government agencies--the MA Department of Food & Agriculture and USDA's Natural Resources and Conservation Service--provide farmers with free fencing to keep livestock out of streams. These agencies will



also help farmers design alternate water supplies. Throughout the state, volunteers from non-profit organizations like Trout Unlimited are helping farmers install fencing to help safeguard the integrity of local rivers and streams. For more information, contact the MA Department of Food & Agriculture's Environmental Enhancement Program at 617/626-1700 or <http://www.massdfa.org/funding/aep/index.htm>

Creating Buffer Strips Along Streams: Buffer strips provide wildlife habitat and greatly reduce the amount of sediments, nutrients and other pollutants reaching wetlands and nearby streams. By retiring a 50-foot strip along a stream and allowing the vegetation to regrow, the amount of nutrients entering the water can be reduced by 90%. What's more, overhanging trees and vegetation will help to keep water temperatures low, which helps maintain higher levels of dissolved oxygen. Natural vegetation also helps stabilize the banks, thereby reducing erosion and downstream sedimentation. For more information, visit: www.nhq.nrcs.usda.gov/CCS/Buffers.html

