



Lawn & Garden Tips to Protect Water Quality



by Julie Wright and Toni Thomas

University of the Virgin Islands Cooperative Extension
Service

1. Save water around the yard.



Don't over-water lawns and gardens. You can tell if you are using too much water when the water pools on top of the soil. Most plants can only soak up a small amount of water at a time, the rest is wasted. Water your plants in the evening or early morning to reduce evaporation and allow the soil to hold more water. Use less water by planting native plants in your yard or non-native plants that are adapted to our tropical soils and drier climate. Water slowly and deeply to help your plants grow deep, healthy roots. This reduces the need to water frequently. You can also use a soaker hose or install a drip irrigation system to directly water each plant.

2. Preserve existing plants, especially natives.

Preserve existing native "bush" on your land. Native plants thrive in our tropical soils and drier climate. They need less water and care than **exotic** (non-native) plants. All plants help to hold water in the soil and cool the area around your home. Plants also slow rainwater runoff and filter soil and other pollutants. Most important, plant roots hold **top soil** in place and prevent erosion. (Topsoil is the upper layer of soil that contains the **nutrients**, or food, plants need to grow and thrive). Bare top soil can be quickly washed away by rain storms (**erosion**), damaging buildings and roads. Eroded soil also pollutes guts, ponds, beaches and the ocean, and can kill coral reefs and fishing banks. **Keep as many plants on your land as possible. It is the easiest and cheapest way to conserve your soil.**



3. Divide your yard into an "oasis" area and a natural zone.

The **"oasis"** is the area closest to your house, walkways and driveway. Put plants that require the most care, like showy exotic plants, lawn grasses, vegetable gardens, and potted plants in the oasis area. These plants often need irrigation, fertilizers and pesticides. The **natural zone** is the area outside the oasis area. Leave some areas of natural "bush" or forest in this zone. The

natural zone is a low-care zone. Here plants thrive on rainfall alone and usually don't need fertilizers or pesticides.

4. Be kind to your lawn. Use a lawn mower to cut your lawn instead of a weed-eater. Weed-eaters tear grass leaves, damaging them and making it easier for pests and disease to attack the plant. Use a sharp mower blade to cut the grass instead of tearing it. Keep grass height mowed two to three inches above the soil. **NEVER** mow grass shorter than two inches. You can also leave grass clippings on the lawn to provide a source of nutrients. However, be careful that clippings do not pile up and kill your lawn.

5. Know your soils. Soils have different abilities to hold water and nutrients available for plants. Loosen the soil around your plants to improve aeration and water uptake by the roots. For clay soils, add organic matter such as compost, manure or peat moss. Till or spade to help loosen the soil. Clay soils absorb water very slowly, so be careful not to over-water. For sandy soils, add organic matter to improve structure. Otherwise, water can move through the soil so quickly that plants won't be able to absorb it. Loamy soil is the best kind of soil. It's a combination of sand, silt, and clay that absorbs water well and stores it for plants to use. If you don't know your soil type, have it tested at the **UVI-CES Soils Diagnostic Lab**.



6. Plant or mulch bare soils. Conserve water and prevent erosion by mulching between plants or covering larger areas with grass or wood-chips, mulch mats (or blankets) or plastic fabric to reduce soil erosion. Cover the soil above plant roots with a one to two-inch layer of **mulch** (grass clippings, compost, shredded bark or other organic matter added to protect and improve the soil). Mulching reduces water loss and soil erosion. Quickly replant large bare areas with fast-growing grasses or ground covers and then add slower-growing shrubs and trees. Replanting along with mulching will give you the best results.

7. Terrace medium to steep slopes.

Terraces prevent soil erosion and let you plant on steep slopes. Traditional “dry wall” rock terraces, concreted rock walls, concrete retaining walls, gabion basket walls or terraces, or newer prefab modular plastic forms can all be used to reshape slopes into stepped, flat surfaces. These flat areas are easier to plant and help conserve soil. Make sure terraces have good drainage so they do not cave in when soils get soaked with water.

8. Use Integrated Pest Management (IPM) and Apply Pesticides Wisely.

IPM is simply an organized method to control pests (weeds, insects, fungi, etc.) in your garden or yard. For IPM to work, you have to put more time and effort into your yard and garden. Weeds can be controlled by hand-pulling, hoeing, or mulching. Insects can be removed by picking them off vegetables and garden plants, or by using garlic water or soapy water. Cleaning up dead leaves and debris removes homes for pests. Inter-crop different types of plants (especially herbs) next to each other to increase natural control of normal pests. You can also use **natural enemies**, helpful insects or bacteria that feed on pests in your garden. When you have no other choice, use non-toxic or least-toxic chemicals such as insecticidal soaps or pyrethrins. Follow label directions carefully, and mix only the amount you need. **NEVER** mix different pesticides together. Check your plants for pests often. The earlier you can catch a problem, the easier it is to control.



9. Reduce Fertilizer Use.

Too much **fertilizer** (plant food) added to your lawn or garden is likely to wash away before the plant can absorb it. Fertilizer in rainwater runoff can cause unwanted plant growth downhill and pollutes water in guts, ponds, beaches and the ocean. Nitrogen and other chemicals in fertilizers can seep down into the soil and pollute ground water, especially in sandy soils. Only add as much fertilizer as your soils and plants need. **DO NOT** add fertilizer if you know it is going to rain within 24 hours, so that it does not wash away. Sweep excess fertilizer off walkways and driveways and back onto the soil before it can be washed away by rain. Try to use organic fertilizers like compost, manure, or fishmeal instead of man-made fertilizer.



10. Mulch or Compost Yard Waste.

Composting and mulching are cheap, natural ways to handle yard debris. Composting creates an organic, slow-release fertilizer and improves the soil. Mulch made of yard debris can be applied as a protective cover over the soil around your plants to save water, prevent soil erosion, and



control weeds. Recycle yard waste (debris), like fallen leaves, cut grass or pruned twigs and branches into mulch or compost. Leaf debris also can be turned into compost or used for mulch. Twigs and branches can be used at the bottom of a compost pile, chipped and shredded and added to the compost pile, or used for mulch around plants. After a storm or hurricane even more yard waste is around that can be composted. In the Virgin Islands, most of this debris is either burned, polluting the air with smoke, or dumped into our already over-loaded landfills. Conserve resources and save money by using these materials to improve your soils.

Water Quality Phone Contacts:

USDA Natural Resources Conservation Service:

(340) 692-9662 or (340) 692-9632

UVI Cooperative Extension Service:

St. Croix: (340) 692-4080

St. Thomas: (340) 693-1080



V.I. Department of Agriculture:

St. Croix: (340) 778-0997

St. John: (340) 776-6274

St. Thomas: (340) 774-5182

V.I. Department of Planning and Natural Resources:

St. Croix: (340) 773-0565

St. Thomas: (340) 774-3320

V.I. Department of Public Works:

St. Croix: (340) 773-1290

St. John: (340) 776-6346

St. Thomas: (340) 776-4844

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