

Garden Talk

Erosion Control

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Control erosion in your home landscape with plants and a retaining wall. Slopes and Erosion Control A beautifully landscaped hillside can be a dramatic element of your property. In addition to looks, slopes can separate homes from busy streets, providing extra privacy and quiet. On the downside, slopes are difficult and potentially dangerous to mow. Slopes can also be susceptible to erosion.

There are things a homeowner can do to have the best of both worlds.

We've all seen erosion where major excavation is underway, but construction sites aren't the only culprits. Our homes are also susceptible to runoff and erosion of topsoil.

Just because you don't see gullies or mudslides doesn't mean that erosion isn't occurring. The process can be very subtle. Look for symptoms such as exposed roots, signs of splashing of soil or mud on pavement. You may not see it on your own property, but runoff from your yard may be evident farther down the street.

At best, erosion is unsightly. In many cases, it can be dangerous. Rainfall or excess irrigation causes runoff from our lawns, roads, parking lots and farm fields.

Topsoil — with its organic matter, beneficial microorganisms and nutrients — is washed away. Also washing away are contaminants such as fertilizer, pesticides and petroleum products. All of this ends up down-

stream and eventually in our water supply.

Remedies

SAFETY NOTE: Severe slopes, especially those that lead downhill towards a structure, require the attention of an engineer or landscape architect. Check local building codes before starting a major project.

Stabilizing the soil on the slope is the answer. Soil in these areas is usually lacking microorganisms and nutrients or suffering from compaction. There are ways to control a slope:

Baffles or barriers are obstruction devices that slow down or divert water from flowing directly downhill. They consist of partially buried stone or timbers (laid parallel to the slope). These barriers work best for lesser slopes.

Riprap is rough, loose stone (at least 6"-8" wide each). Usually granite, the stone is imbedded into or spread loosely onto the slope. Riprap also slows and diverts flowing water. It is effective but can appear stark or harsh in some landscape designs. To soften the impact, the areas between the stones can be planted with a variety of ground covers or rock garden plants.

Terraces "stair-step" up the slope. The flat surfaces allow you to plant on the terraced levels. Terraces allow water to soak in instead of running off. Use timber, stone, concrete or precast concrete block to build the retaining walls.

Start at the bottom and fill in the level above with soil from the area just leveled (a technique called cut and fill). Terraces should slope a bit (about 2% is recommended) to prevent water from collecting at the back of the terraced portion. Remember that mortarless retaining walls can only reach a certain height (usually about 2'). Check the specifications of the product you are using for height restrictions. Also remember to back-fill the area behind the wall with crushed rock to ensure drainage. If you build a terrace around existing trees, make sure the soil level is not raised. Covering the roots too deeply can damage the tree.

Plants can be used to control slopes. Any of the slope control methods above can be planted, or you can use plant alone. When plants are established, the roots help anchor the soil. Getting them established on a slope can be difficult. Seeds and mulch wash away; planting holes are eroded before the plant gets established. Wildflowers, clump forming ornamental grasses or other perennial native plants usually adapt quickly to slopes and unimproved soil.

Rocky soil could also be adapted for a rock garden. If you choose to provide irrigation for a planted slope, make sure that the system's water pressure is adequate to water the entire area.

Temporary remedies include: plastic sheets, straw bales, mesh, silt fences and mulches. These are short-lived, as they will biodegrade or wash away over extended periods of time.

Turfgrass can control erosion on minor slopes if the grass is healthy. A grass such as annual rye can germinate quickly and help stabilize soil while perennial grasses can get established. Compacted soil is a major contributor to runoff. Aerate if possible, and add organic matter such as compost to promote a healthy stand of grass. Getting grass seed to stay in place on slopes until it germinates can be tough on steeper slopes. A covering of straw can help secure the seed and reduce water runoff. On steep slopes you may need to resort to hydroseeding by a landscape contractor.

Good idea: A excellent new method of starting turfgrass on slopes (or anywhere) is by using a seed germination blanket. The blanket is a combination of biodegradable and wood fiber that holds seed and fertilizer in place until grass seedlings can take root.

Here are some recommended landscape plants for slopes:

Ajuga
Juniper
Artemesia
Kerria
Banks Rose
Leucothoe
Barberry
Liriope
Clematis
Manzanita
Cotoneaster
Pachysandra
Daylilies
Potentilla
Euonymous
Sage
Autumn Sage
Forsythia
Sedum

Vinca
Ivy
Weigela
Silver Lace Vine
Honeysuckle

Good idea: Slopes that adjoin wetlands, stream sides, lakesides, shorelines and other waterfronts are another issue. These areas serve as buffer zones between land and water. If your slope affects a watershed, get advice from a water mitigation expert or conservation agency.

Do your homework. If not kept in check, many plants can become invasive and spread to planting areas where they are not wanted.



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