

HOME GROUNDS FACT SHEET

CORNELL Cooperative Extension
Nassau County



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Steep Slopes Don't Have to Be a Problem in Your Landscape

With thoughtful planning and execution, steep slopes can be effectively incorporated into the rest of the landscape in workable and attractive ways. Depending on the angle of the slope and its location, it can be planted with grass, ground covers and shrubbery and/or incorporating some terrace walls.

As long as a slope is not too steep (a 33° angle or less), putting in a lawn is certainly worth consideration. Seeding even a slight slope, however, can be challenging, at least until establishment occurs. This is, obviously, because of the likelihood of soil erosion.

Placing strips of sod horizontally across the slope or sodding the entire sloped area is one way to prevent loss of seed and soil. Another alternative is the use of burlap netting or erosion cloth. These will hold seed in place and also make watering easier. Hydro-mulching, a composition of paper pulp and water, can also be sprayed or watered onto the area. This will temporarily control erosion while the seed is germinating. Light applications of salt hay or chopped straw, similarly, will help hold seed in place. Erosion, in general, will be less of a problem if the soil is well prepared with plenty of compost or other organic material prior to seeding. Incorporating a small percentage of perennial ryegrass in the mix will provide quick cover due to its rapid germination of 5 to 7 days.

As slopes become steeper, lawns become impractical, both in their installation and later in maintenance. Pity the poor gardener that has to push a lawn mower up or down or across a very steep slope! The turf will also suffer from dryness because of exposure and the difficulty of watering. This is especially true if the soil is sandy.

Ground cover plants can be used successfully on these steeper slopes. Once established (in a totally weed-free bed from the beginning) most ground covers, if properly selected will require very little maintenance. Prostrate juniper, ivy, euonymus and pachysandra are commonly used for bank plantings. Plantings of vinca, pachysandra and English ivy on dry, sunny banks should be avoided and replaced with bearberry (*Arctostaphylos*), fragrant sumac (*Rhus aromatica*), regal privet, memorial and rugosa rose, sedum, sweet fern (*Comptonia*), or juniper (only phomopsis (disease) resistant varieties).

If slopes are large and prominent in the landscape, they may not be pleasing to the eye if covered with only one type of plant. Fortunately, many shrubs will grow well on slopes if the soil is well prepared. In shaded areas leucothoe, andromeda (*Pieris*), mahonia, and rhododendrons will often blend well with ground covers and give some variety to the planting. Barberry, yew (*Taxus*), and many of the upright-growing junipers will do well in sunny, exposed elevations. There are many other possible choices. Why not try your local garden center?

Slopes may also be terraced or broken up by walls. Dry stone walls (those made without mortar) and railroad ties (pressure treated) are frequently used for this purpose. Both of these may be expensive, but on a small property, the extra expense is very often justified. Dry stone walls can be the brightest and most interesting areas in a garden if they are planted with a variety of rock garden perennials such as campanula, sempervivum, sedum, rock cress (*Aubretia*), pinks (*Dianthus*), coral bells (*Heuchera*), and candytuft (*Iberis*).

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When installing any kind of planting involving ground covers, **a weed-free planting bed is essential.** Preventing the germination of existing weed seeds in an established planting is possible by using surface mulches and/or recommended pre-emergent herbicides. Pre-existing perennial broad-leaved weeds and grasses, however, must be killed with a non-selective herbicide 2-3 weeks before the planting is to take place. (For more information, see Home Grounds Fact Sheet D-2-31, Weed Control in Landscape Plantings.) Once this has been accomplished, take sufficient time to properly prepare the planting site. Thoroughly incorporate the organic matter (compost), limestone (a soil pH test will tell you how much), and super phosphate to a depth of at least 6" to 8" with a rototiller.

Determine the proper spacing for the plants selected. This depends on the growing habit of the plant and its rate of growth, as well as the size of the plants available and the immediate effect desired. General guidelines are: 8-10" on center for pachysandra, ivy, and vinca; and 24" on center for juniper.

After planting, apply a 2-3" layer of bark, wood chips or other satisfactory organic mulch and keep plants properly watered throughout the duration of the first season and, when necessary, into the second and third years. By following these steps, good establishment and rapid cover will be assured.

Dry walls should be sloped slightly into the bank. If made carefully of flat stones, they should have a pitch of only 1 or 2 inches for each foot in height;

whereas, a wall made of round, "Long Island-type" stones needs a pitch of 3 to 5 inches for each foot in height. Stone walls higher than 4 feet will require a concrete footing and mortared joints.

Reverse slopes or those away from the garden area or out of view of the house, often are a problem because homeowners can't see spending much money to beautify them. All that may be necessary is a planting that will keep down weeds and control erosion. Virginia creeper can be used since it is inexpensive and spreads rapidly. However, these vines may spread too rapidly and invade garden areas.

Use of ground cover plants and walls can transform the problem slope into an area of minimum maintenance, but remember that the selection and proper placement of plants and structures requires careful consideration. All too often, costly and time-consuming replacement proves necessary only a few short years after the initial installation. Don't let this happen!

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