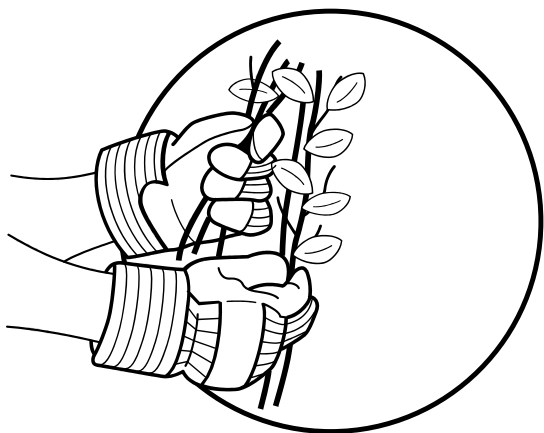


landscape fabrics covered with rocks or bark mulch. You can use pine straw to create a layered weed barrier. The mulch serves two purposes: it is a physical barrier to the emerging seedling, and it prevents sunlight from reaching the soil surface. Blocking sunlight is important because some weed seeds will not germinate without stimulation from sunlight. Also, sunlight is critical for the new weed seedling to begin photosynthesis for growth and development.

A mulch must be thick enough to block light and be effective. Mulch trees to a depth of 3-4 inches and shrubs to a depth of 2-3 inches. Mulch bedding plants to a depth of 1-2 inches. Be sure to keep the area around the trunk or stem (base) of the plants clean of mulch. Piling mulch around the base leads to moisture accumulation, heat buildup and lack of oxygen exchange. The result is damage to the trunk tissue.

Be careful, however, that the mulch you use does not contain a large supply of weed seed. Small grain straw, for example, may contain weed seed; if you use old hay for mulch, it is probably guaranteed to contain large quantities of weed seed.

Synthetic mulches include black or colored polyethylene sheeting and weed barrier fabrics. You must put irrigation lines under the sheeting, since rainfall will not penetrate this barrier. Woven synthetic landscape fabrics are available, too. These fabrics eliminate the



need to place irrigation lines under the fabric, but they are less effective in eliminating sunlight. In most landscape bed situations, organic mulches, such as bark and pine straw, are favored over synthetic mulches.

Hand Removal

Many weeds in flower beds can easily be removed by hand. Most people benefit from the exercise. Of course, it will enhance the beauty of your landscape, too. When used as a supplement to the practices discussed, hand removal every other week will give your property that manicured appearance. When pulling weeds by hand, be sure to remove the roots. Young weeds will have minimal roots. Most perennial weeds and many annual weeds will regrow if you don't remove roots from the soil. Regular mowing removes many weeds from lawns that can't tolerate the shoot loss.

Adapted from Mississippi Cooperative Extension Service Publication 1580

Ron Strahan, Assistant Professor
Tom Koske, Professor
Allen D. Owings, Professor
School of Plant, Environmental & Soil Sciences

Visit our Web site: www.lsuagcenter.com

Louisiana State University Agricultural Center
William B. Richardson, Chancellor
Louisiana Agricultural Experiment Station
David J. Boethel, Vice Chancellor and Director
Louisiana Cooperative Extension Service
Paul D. Coreil, Vice Chancellor and Director

Pub. 2778 (5M) 3/07 Rev.

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.

This material is based upon work supported by the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture, under Award No. 2006-41210-03363. All opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



Nonchemical Weed Control for Home Landscapes



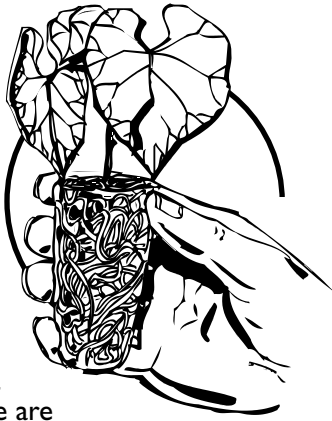
LSU
AgCenter
Research & Extension

Louisianians take pride in the appearance of their lawns and landscapes. Weeds, however, can detract from that appearance and frustrate homeowners.

A weed is any plant growing where it isn't wanted, but usually these are the plants that establish naturally. There are broadleaf weeds, grassy weeds, summer weeds, winter weeds, perennial weeds and annual weeds. Common weeds in Louisiana include Bermuda grass, crabgrass, spurge, Florida betony, clover, henbit, dollarweed, pennywort, Virginia buttonweed and nutsedge.

Some weeds are more than just a nuisance; they can cause real damage. Weeds such as common ragweed release pollen that irritates allergies. Poison ivy and poison oak cause skin irritation either through direct contact with the plant or indirectly through clothing or pets that have come in contact with the plants. Lawn burweed is the obscure delicate winter annual that produces spiny flowers in spring. Sandbur is a highly visible summer annual that produces spiny seed structures all summer. Both can be painful to bare feet.

Sometimes the amount of work required to minimize weed growth and to maintain beauty and order around the home seems overwhelming. Really, weed control must be considered weed management. Homeowners, like farmers, should use a combination of practices to minimize weed growth and maximize plant growth. This is especially true for lawns and landscape beds. Prevention is worth a pound of cure. A healthy lawn keeps weeds out.



Adaptation

When you select landscape plants, choose ornamentals and shrubs that are adapted to the gulf south. Plants native to the northern or arid southwestern United States probably won't thrive in Louisiana. Weak stands just beg for weeds to come in.

Light

A common problem that contributes to weed growth is too much or too little sunlight. If there is too little sunlight (or too much shade) on the lawn, the turf canopy thins, creating spaces for weeds to emerge and grow. Lack of sunlight can make ornamentals and turf susceptible to attack by diseases, insects or nematodes.

Make sure there is adequate sunlight for turf and shrub development. This can mean pruning or removing trees to increase sunlight penetration. The reverse of this can occur with ornamental plants that thrive in low sunlight. Many ornamentals have foliage that will burn if exposed to too much sunlight. Burning also weakens the plant and creates a more suitable host for diseases.

As you design your landscape, take into account the light requirements of the ornamentals and turf in your lawn. Give sunlight where it is needed, and give shade to areas that need shade. If heavy shade trees are left, use shade-tolerant ground covers instead of grass.



Soils

pH. Soil pH, or acidity level, has a tremendous impact on the growth and development of shrubs, flowers and weeds. Many weeds are better adapted to grow in soils with a wide range of pH values, while other more desirable plants brought into that site may not be as adapted to survive at that pH. Thus, for every normal pH level found, there are weeds that are quite comfortable there. Pine bark and pine straw, the two most common organic mulches used in Louisiana, gradually will decrease the soil pH immediately below the mulch layer.

Fertilizers. Proper use of fertilizers during transplanting is important to avoid burning transplant roots and causing stress during establishment. After transplanting, fertilize ornamentals according to soil test recommendations to ensure optimal flower growth and development. High phosphorus in the soil adds to the germination of annual weeds.

Drainage. Lack of drainage in landscape beds can cause root rot and lead to overall decline of ornamentals. Certain weeds, such as cocoglass, rushes, dollarweed and torpedo-grass, proliferate in water-logged soils. Install a tiled drain or reshape the soil surface to move water away from the bed. Avoid dips or pockets in the lawn by topdressing soil to flatten them out. This will reduce the suitability of that site for weeds that thrive in water-logged soils.

Mulch

One of the best weed-management practices to use in landscape beds is mulch. Many materials can be used. They include weed barrier, landscape fabric, compost, newspaper, pine straw, leaf litter, pine bark and cypress mulch. Even gravel and rocks can be used for mulch. Shredded waste tires are used in some states.

Often the most effective approach is to use a combination of mulches, such as