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Controlling weeds in ground cover

Ground covers are an important feature in landscape design. They are planted for many reasons—beautification, temperature stabilization, erosion control, or suppression of weeds. A dense ground cover can give us a sense of beauty, but if certain rules of site management before and after planting are neglected, weeds might dominate the site instead.

Healthy and aesthetically pleasing ground covers are the result of four major processes: preplant soil treatment, application of preemergence herbicides, use of postemergence herbicides and cultural practices.

Preplant Soil Treatment

Fumigation with metham (Vapam) or methyl bromide provides excellent control of many weeds, insects, disease pathogens and nematodes. However, watch for certain temperature requirements when using fumigants.

Solarization utilizes solar energy captured under polyethylene plastic as lethal heat for some weeds. The plastic must remain for at least six weeks during June, July or August on a previously-prepared planting site.

The sprinkle-sprout-spade/spray technique stimulates the germination of weed seeds, first, by sprinkling water over the area. The new weeds are then killed by shallow spading or herbicide spray. Several repetitions of the process can destroy up to 90 percent of the weed seeds in the top half-inch of soil.

Preemergence Herbicides

EPTC (Eptam) has registration on ajuga, gazania, hypericum, ice plant, ivy, pachysandra, vinca, sedum and ornamental strawberry. It controls nettle, fleabane groundsel and other weeds. It may provide some control of nutsedge. Its residual is six to eight weeks. A very volatile compound, it should be watered immediately.

Trifluralin (Treflan, Pre-Seeder Weeder) has registrations on ivy (Algerian, English, California and Needlepoint) gazania, hypericum, ice plant, myoporum, trailing Africa daisy, sedum, verbena and veronica. It controls oxalis, bindweed (partially) and other weeds but misses malva and mustard nettle. The residual is four to six weeks. Its volatility requires immediate watering after application.

DCPA (Dacthal W75, Lily-Miller, Weed Preventer) has registrations on alyssum, candytuft, cinquefoil, ivy

(Baltic, Boston, English and Wilson), juniper, lantana, pachysandra and sedum. DCPA controls dandelion (seed), shepherdspurge and other weeds, but misses henbit. It offers some control of spurge. It has a residual of two to three months and requires water incorporation within seven days. DCPA is also one of the safest to ornamentals.

Oryzalin (Surflan) has registrations on coyote bush, trailing African daisy, fatsyhedera, gazania, ice plant, ivy (Algerian and English), juniper, lily-of-the-Nile, myoporum, periwinkle and sedum. It controls spurge, malva, oxalis (partially) and other weeds, but misses mustard and dandelion (seed). It has a residual of up to eight months and must be watered in within 21 days.

Napropamide (Devrinol) is registered for use on ajuga, carpobrotus, dichondra, gazania, Hedera ivy, hypericum, ice plant, lantana, osteospermum, pachysandra and vinca. Devrinol controls tumbleweed, sowthistle, filaree and other weeds but misses henbit. It has a residual of two to four months. It must be watered in within two to three days. Fifty percent photodecomposition occurs within four days.

Diphenamid (Enide) is registered on Algerian ivy, baby tears, carpet bugle, cinquefoil, coyote bush, dichondra, gazania, ice plant, juniper, periwinkle and sedum. It controls groundsel, filaree and others but misses shepherdspurge and dandelion seed. It has a residual of three to six months. There is some leaching, basically on sandy soils. The product also has some postemergence activity.

Bensulide (Betasan, Super Pax, Scotts) is economical for grass control in ajuga, alyssum, candytuft, gazania, hypericum, ice plant, ivy, juniper, pachysandra, periwinkle, sedum and star jasmine.

Oxadiazon (Ronstar) has crop tolerances for ajuga, ivy (Algerian, English), eunomyus, vinca, pachysandra, sedum, osteospermum and carpobrotus. Care must be taken that the foliage is not wet when the compound is applied. Oxadiazon is weak on chickweed and oats.

Elanco XL is a granular combination (Surflan plus Balan) with registrations for use in arctotheca, trailing African daisy, gazania, ice plant (large leaf, rosea and red trailing), ivy (English and Algerian), juniper, lily-of-the-Nile and hypericum. A wider

spectrum of weeds is controlled by combinations of herbicides such as this one.

Dichlobenil (Casoron, Dyclomec) and **Rout (Goal plus Balan)** have limited label registrations and/or restrictions.

A random check of 12 retail nurseries in the San Francisco Bay Area showed that of the 11 preemergence herbicides discussed above, six are widely available, while the remaining five are not easy to find. The widely-available herbicides are trifluralin, DCPA, oryzalin, napropamide and diphenamid. Less widely available are bensulide, oxadiazinon, Elanco XL, dichlobenil and Rout.

Thus, the selection of a preemergence herbicide depends on its availability as well as the type of weeds present, product registration and other factors.

Postemergence Herbicides

Selective postemergence control of weeds is limited to one salt-based and several grass-specific herbicides.

Magnesium Chloride (Ice Plant Weed Control) is available in liquids and soluble powders. It top-kills many

grasses and broad-leaved weeds.

Sethoxydim (Poast) is effective on a wide range of annual and some perennial grassy weeds and can be used in ajuga, ivy, juniper, ice plant, pachysandra and mondo grass.

Fluazifop (Fusilade, Ortho Grass-B-Gon) is effective on both annual and perennial grassy weeds and gives better control of the perennials than sethoxydim.

Selecting the proper herbicide is determined in part by the correct weed identification in the ground cover. The University of California Cooperative Extension Publication No. 2782, *Weed Control in Ground Covers*, is an excellent reference to identify the weed and the proper material to control it. And always read the product label to find out whether the material is registered for a particular ground cover setting. To obtain Publication #2782, send a check or money order in the amount of \$1.25 payable to the UC Regents to: ANR—GP, 6701 San Pablo Ave., Oakland, 94608-1239. ■

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