



## Design for Everyday Living

# Ground Covers

### Selection and Use

by

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Nature used ground covers as earth carpets long before man conceived the idea of using evergreen vines and low growing shrubs as labor saving devices. Today's way of life has brought an even greater demand for ground cover plants and more emphasis is placed on their esthetic qualities as well as the functions they serve.

This increased demand has brought about the development of new cultivars of plants which possess varied esthetic qualities, such as a variety of flower color, size and color of foliage and habit of growth. Low growing shrubs, which reach a height of three feet or less are often utilized. Also, some annuals and perennials have found special uses as ground covers.

Herbaceous plants are often overlooked as ground covers because generally a year-round effect is desired. The root systems of these plants still aid in holding the soil during the winter and they produce more blooms with a greater variety of color than is found in most woody plants. Herbaceous plants are especially effective in areas covered by snow most of the winter months, around summer homes, resorts and recreation areas or even along roadsides.

#### Landscaping with Ground Covers

Once, the sole purpose of ground covers was to act as a substitute for grass and they were used to stabilize the soil and prevent erosion on banks too steep to mow. They were also used to cover bare areas where grass would not grow, such as in heavily shaded areas. Today, ground covers serve

many other purposes and their selection should receive the same careful consideration as when selecting other plants to be used in the landscape.

In addition to serving as a substitute for grass, ground covers are used as labor saving devices. Ground covers planted in shrub borders serve as a living mulch – aiding in retaining moisture and eliminating weeds. At the same time they act as a soil conditioner by adding organic matter to the soil through decaying stems and foliage.

Ground covers may also be used to direct traffic. It has been found that people do not cross beds of ground covers that are 4 feet or more wide. Low growing shrubs with prickly foliage, such as junipers, serve the same purpose.

Esthetically, ground cover plants make a great contribution by adding interest to the landscape through changes in forms, textures, colors and sizes; they may serve as a unifying agent for the design; they may make uneven, open areas appear more smooth and level; they may be combined with trees, shrubs, bulbs, and perennials for varying seasonal effects, and they may be used to define areas and establish boundaries.

These are only a few uses of ground covers and with careful consideration, their physical characteristics and esthetic qualities may be used to the fullest advantage.

#### Selecting Ground Covers

The selection of the proper ground cover is essential if the demands of the situation are to be

met and a pleasing picture is to result. Some plants are more suited to some locations and situations than other plants. For example, fine textured plants are more suited to small areas than coarse textured plants. Also, some plants require full sunlight—others prefer shade. Rich loamy soils are required for the cultivation of most ground covers but a few grow best in sandy, dry soils.

The hardiness of the plants is a determining factor in making the right selection. Some plants can withstand sub-zero temperatures while others thrive only in warmer climates. Most of West Virginia lies in zones 4, 5 and 6 as determined by "Plant Hardiness Zone Map," published by the United States Department of Agriculture. These zones in WV have an average minimum temperature which would range from 0°F to -30°F.

The horticultural requirements of plants are another consideration. Plants such as Partridge berry grow best in high altitudes, in shaded areas, with soils rich in organic matter. On the other hand, Sedum thrives in full sun, in soils that are dry and poor in nutrients.

#### **Planting Ground Covers**

*In Beds:* Plants of a viney nature should be planted in beds which have been prepared in the same manner as for flowers or lawns. The topsoil should be removed and the subsoil cultivated to a depth of six to eight inches. Lime (if needed), fertilizer and a two inch layer of organic matter should be incorporated into the subsoil. Replace the topsoil and repeat the procedure. A rule of thumb is to incorporate five pounds of 20% super-phosphate into the subsoil for every 100 square feet of bed. A complete fertilizer such as 10-10-10 should be added to the top of the soil at the rate of two pounds per 100 square feet of bed.

*On Slopes:* The degree of slope will determine if a regular bed or individual pockets should be prepared. If individual pockets are dug, make certain they are sufficiently large to accommodate the plant and a backfill of good top soil. A mulch or netting of some description may be necessary to control erosion until the plants become established.

*Planting shrubs:* Small or dwarf shrubs should be planted in the same manner as other shrubs.

#### **Maintenance of Ground Covers**

Ground covers are often considered as "cure alls." This is a definite misconception. Ground covers, though they do require less maintenance than grasses, are living plants and require a certain amount of attention.

*Fertilizing:* Viney type ground covers, such as ivy, which have a low habit of growth may be fertilized by broadcasting a commercial fertilizer over the area. Then water well to make certain the fertilizer does not adhere to the foliage and burn the plant. Ground covers which have an upright habit of growth, such as Pachysandra, may be fertilized with well rotted manure. The foliage is sufficiently high from the ground so that it will not be burned by the fertilizer. Shrubs should be fertilized in the same manner as other shrubs.

*Watering:* Ground covers should be watered with sprinklers in the same manner as lawns, or the garden hose may be placed in the bed and allowed to run slowly for several hours. Daily sprinklings can cause the root system to form on the surface of the ground, leaving the plant susceptible to drought. Watering in the evening is not a good idea because the plants do not have sufficient time to dry before dark, thus creating conditions favorable to the growth of fungus.

*Weeding:* Weeding ground covers can be a tedious operation because it must be done by hand. Herbicides which kill weeds will also affect ground covers. In some instances pre-emergence herbicides may be used to control weed seeds. Consult your local garden center operator, nurseryman or county extension agent for latest recommendations.

*Insects and Diseases:* Ground covers are subject to attack from insects and diseases the same as all other living plants. Therefore, a good spray program should be established and followed. Again contact a local authority for the best control methods and materials to use.

GROUND COVER	TYPE	USDA** HARDINESS ZONE	SIZE	REMARKS
Aegopodium podagraria Bishops Goutweed	Herb	4	6" - 14"	May become a weed; poor soils; sun or shade
Ajuga reptans Carpet Bugle (Bugleweed)	Herb	5	4" - 12"	Evergreen in warm climates; may become a weed; good flower display; moist soil; sun or shade; 12"-18" spacing
Akebia quinata Fiveleaf Akebia	Vine	5	30' - 40'	Twining vine, may smother small trees and shrubs; 6' - 10' a year; shade or sun
Andromeda polifolia Bogrosemary Andromeda	Shrub	3	1' - 2'	Wet, peaty soil; varieties nana and nana compacta lowest in height; spacing 1'
Artemisia stelleriana Beach Wormwood (Dusty Miller)	Sub-shrub	3	2½'	Dwarf forms available; foliage plant; good for small areas
Arctostaphylos uva-ursi Bearberry (Kinnikinnick)	Shrub	3	6"-12"	Dry, sandy, poor soil; spread 15"; 1 gal. size plants; spacing 3', because of slow growth
Calluna vulgaris Scotch Heather	Shrub	5	4" - 24"	Acid, moist infertile soil; prune severely in late winter; evergreen; many cultivars
Ceanothus americanus Jerseytea Ceanothus	Shrub	5	3'	Difficult to transplant; dry soil; sun to partial shade
Cerastium tomentosum Snow-in-summer	Herb	3	3" - 6"	Rapid grower; evergreen
Chaenomeles japonica alpina Alpine Japanese Flowering - quince	Shrub	5	1'	Dwarf; suckers rapidly; sun; 18"-24" spacing
Comptonia peregrina Sweetfern	Shrub	3	4'	Good for roadsides; acid, moist or dry soil; difficult to transplant
Convallaria majalis Lily-of-the-Valley	Herb	3	8"	Fragrant; divide periodically; good flower display; poor soil; shade or sun; 6" spacing
Cornus canadensis Bunchberry Dogwood	Shrub	4	9"	Sun or partial shade
Coronilla varia Crownvetch Coronilla	Herb	4	1' - 2'	Roadsides & steep banks; requires a few years to establish; spreads faster up a bank than down; (seed or crowns)
Cotoneaster adpressa Creeping Cotoneaster	Shrub	5	1' - 2'	} { Cotoneaster have problems with red spider, fire blight and lace bugs; sun; rock gardens Can spread 15"; evergreen
Cotoneaster apiculata Cranberry Cotoneaster	Shrub	5	1' - 1½'	
Cotoneaster horizontalis Rock Cotoneaster	Shrub	5	1½' - 3'	
Cotoneaster microphylla Rockspray Cotoneaster	Shrub	6	6" - 12"	Can spread 10'; evergreen
Cytisus beani Beans Broom	Shrub	6	18"	Poor soils, two to three times broader than tall. hybrid; evergreen; sun; 18" spacing
Cytisus procumbens Ground Broom	Shrub	6	18"	Twigs green all winter; transplant small plants; 18" spacing
Cytisus purpureus Purple Broom	Shrub	6	18" - 24"	Shear after flowering; poor soil
Diervilla lonicera Dwarf Bushhoneysuckle	Shrub	4	3'	Wasteland and dry banks; sun to partial shade
Diervilla sessilifolia Southern Bushhoneysuckle	Shrub	5	4½'	Not as good as D. lonicera; wasteland and dry banks
Euonymus fortunei (Var.) Wintercreeper Euonymus	Shrub- Vine	6	2" - 6"	Roots easily at nodes; evergreen; sun; 18" spacing; gets scale
Euonymus obovatus Running Euonymus	Vine	4	12"	Partial shade; 18" spacing; gets scale
Forsythia 'Arnold Dwarf'	Shrub	6	3'	Flowers greenish-yellow, poor; sun; 2' spacing
Forsythia viridissima bronxensis Bronx Forsythia	Shrub	6	18"	Flowers profusely; sun; 18" spacing
Gaylussacia brachycera Box Huckleberry	Shrub	6	18"	Native to West Virginia; evergreen; shade; acid, moist soil; 9" - 18" spacing
Hedera helix (Var.) English Ivy	Vine	6	6" - 8"	Variety 'Baltica' used in West Virginia; 4' - 8' a year; evergreen; sun or shade; 9"-18" spacing
Hemerocallis (spp) Daylily	Herb	4	3'	Almost any soil; 18" spacing

GROUND COVER	TYPE	USDA** HARDINESS ZONE	SIZE	REMARKS
Hosta (spp.) Plantainlily, (Funkia) (August Lily)	Herb	4	1' - 2'	Moist or dry soil; semi-shade; 18" spacing
Hydrangea petiolaris Climbing Hydrangea	Vine- Shrub	5	2'	Slow in starting; sun or shade
Hypericum buckleyi Blueridge St. Johnswort	Shrub	6	10"	Sandy soil; sun; 2' spacing
Iberis sempervirens Evergreen Candytuft	Sub-shrub	5	9" - 12"	Rock wall garden; evergreen; sun; 9" - 12" spacing
Ilex crenata (Var.) Japanese Holly	Shrub	6	3'	Special uses, good for small areas; varieties 'Stokes' and 'Heller' are dwarf forms
Indigofera kirilowii Kirilow Indigo	Shrub	5	3'	Sometimes killed to the ground by severe winters
Jasminum nudiflorum Winter Jasmine	Shrub	6	3'	Stems remain green in winter; 3' spacing
Juniperus chinensis 'Compact Pfitzer'	Shrub	5	2'	} All Junipers subject to Red Spider Mites; like dry soil, circumneutral Steel blue-green in winter; Spread 4'- 5'; spacing 3' Withstands limestone soil; 15' spread Silvery blue foliage; spread 8' Silvery grey foliage; 8' spread; cedar-apple rust
Juniperus chinensis sargentii Sargent Chinese Juniper	Shrub	5	2'	
Juniperus communis saxatilis Mountain Common Juniper	Shrub	5	1'	
Juniperus conferta Shore Juniper	Shrub	3	1'	
Juniperus horizontalis (Var.) Creeping Juniper	Shrub	6	1'	
Juniperus procumbens Japanese Garden Juniper	Shrub	3	12" - 18"	
Juniperus sabina 'Tamarix' Tamarix Savin Juniper	Shrub	6	2'	
Juniperus scopulorum 'Silver King'	Shrub	5	2'	
Juniperus virginiana 'Silver Spreader'	Shrub	6	2'	
Leucothoe catesbaei Drooping Leucothoe	Shrub	3	3'	
Liriope spicata Creeping Liriope (Lilyturf)	Herb	5	8" - 12"	Grasslike foliage; shade or sun; semi-evergreen; 12" spacing
Lonicera henryi Henry Honeysuckle	Vine	5	5	More hardy than Halls Honey- suckle; evergreen; shade or sun
Lonicera japonica halliana Halls Japanese Honeysuckle	Vine	5	5	Will escape and become a pest; grows 18' to 20' a year; semi-evergreen; sun or shade; 3' spacing
Lycium halimifolium Matrimonyvine	Vine- Shrub	5	9'	Poor soil; sun
Mahonia repens Creeping Mahonia (Dwarf Holly-grape)	Shrub	6	10"	Sun or shade; good flower display; dry soil; evergreen; 12" spacing
Mentha (spp.) Mints	Herb	4	1' - 2'	Aromatic, moist soils can become a pest
Mitchella repens Partridgeberry	Vine	4	2"	Shade; moist, acid soil; transplant in sod; terrarium
Pachistima canbyi Canby Pachistima	Shrub	6	12"	Acid, moist, well drained soil; evergreen; shade or sun; 12"-18" spacing
Pachysandra terminalis Japanese Pachysandra	Vine	6	6"	Evergreen; shade; 6" - 12" spacing
Parthenocissus quinquefolia Virginia Creeper	Vine	4	4	Can become a pest; 6 - 10 feet a year; poor soil; shade or sun
Phalaris arundinacea picta Ribongrass	Herb	4	2' - 4'	Variegated; moist soil; sun or shade
Phlox subulata Moss Phlox (Ground-Pink)	Herb	3	6"	Dry soil; sun
Polygonum auberti Silvervine Fleeceflower	Herb	3	3	Very weedy; 10'-15' per year; dry soil; sun
Polygonum cuspidatum compactum Japanese Fleeceflower	Herb	5	2'	Very weedy; dry soil; sun; 24" - 36" spacing
Pueraria thunbergiana Thunberg Kudzubean (Kudzu Vine)	Herb- Vine	6	6	Good for roadsides; 60' year; can become a pest

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Rhus aromatica Fragrant Sumac	Shrub	4	3'	Poor soil; sun
Robinia hispida Roseacacia Locust	Shrub	6	3'	Dry banks; sun
Rosa 'Max Graf'	Shrub- Vine	3	3' - 4'	Best viewed at a distance; sun; hybrid rugosa
Rosa rugosa repens Trailing Rugosa Rose	Shrub	3		Sun
Rose wichuraiana Wichura Rose	Shrub- Vine	6	1'	Semi-evergreen; especially good on banks; sun
Rubus laciniatus Cutleaf Blackberry	Shrub- Vine	6	2'	Very thorny; good barrier
Salix tristis Dwarf Pussy Willow	Shrub	3	1½'	Moist, Sterile soil; sun
Santolina chamaecyparissus Cypress Lavendercotton	Herb	7	1½' - 2'	Limited use; aromatic; spacing 24"
Sedum acre Goldmoss Stonecrop	Herb	4	3"	Evergreen in warm climates; dry soil; shade or sun
Symphoricarpos orbiculatus Indiancurrant Coralberry	Shrub	3	3'	Variety 'Hancock' very good; dry soil; sun
Thymus serpyllum Mother-of-thyme (Creeping Thyme)	Herb	5	1"	Good between stepping stones; 6"-12" spacing; many cultivars; Aromatic
Thymus vulgaris Common Thyme	Herb	6	3" - 8"	Aromatic
Vaccinium angustifolium laevifolium Smoothleaf Lowbush Blueberry	Shrub	3	8"	Rockery; poor soil; shade or sun
Veronica (spp.) Speedwell	Herb	4	2" - 12"	Can become a pest
Vinca minor Common Periwinkle (Myrtle)	Vine	5	9"	Combine with bulbs and shrubs for good effect; shade or sun; evergreen; 9"spacing
Waldsteinia fragarioides Barrenstrawberry	Herb	5	4"	Grows into a mat; fruit inedible; dry soil. evergreen; shade or sun
Xanthorhiza simplicissima Yellowroot	Shrub	5	2'	Moist soil; grows to a uniform height; shade or sun; 2' spacing
Yucca filamentosa Adamsneedle Yucca	Shrub	5	2'	Roadsides; poor soil; ever- green

\*\*Zone 3 = -40°F to -30°F  
Zone 4 = -30°F to -20°F  
Zone 5 = -20°F to -10°F  
Zone 6 = -10°F to 0°F

