



## Department of Horticulture

---

Purdue University Cooperative Extension Service West Lafayette, IN

# Ground Covers for the Landscape

*Michael N. Dana and B. Rosie Lerner*

Ground covers are low-growing plants which are useful for covering large areas in the landscape. They can also provide a planting solution for many difficult sites. Ground covers can replace turfgrass in shady locations, provide erosion control on dry slopes, and provide cover under trees, shrubs, or in narrow spaces where grass mowing is impractical. The wide variety of low-growing plants available as ground covers presents many special effects in form, texture, color, and mass. Ground covers can provide a "finishing touch" to a landscape.

## Preparation

Like any ornamental tree or shrub, ground cover plantings will become a permanent part of the home landscape. Thorough preparation of the planting site is a must. Vegetation covered areas should be cleared before planting ground covers, since most cannot compete against established perennial plants. A simple, successful method for clearing is to use a no residual, systemic herbicide such as glyphosate (e.g., Round-Up, Kleen-Up) 7-14 days prior to soil preparation. On level sites, the soil should be worked to a depth of 8 to 10 inches. Incorporate a 2-inch layer of peat moss, compost, or well-rotted manure thoroughly into the soil. Also incorporate a complete fertilizer, such as 12-12-12, at the rate of 1 1/2 to 2 pounds of fertilizer per 100 square feet of area. Add lime or sulfur to alter soil pH only as indicated by a soil test.

## Planting

In general, most ground covers can be planted at any time of the year. However, spring plantings are most successful, especially for rooted cuttings or bare-root transplants. Fall plantings are successful if planted early and watered regularly to encourage quick establishment. Late fall plantings often suffer from frost heaving. Container plants can be planted at any time during the growing season. Always water the plants thoroughly immediately after planting.

Space the plants according to their size, the immediate effect desired, and their rate of growth and habit. For example, pachysandra and vinca usually are spaced 6-12 inches apart, while shrubs, such as cotoneaster and juniper, are spaced 3 feet or more apart.

## Care

Weed control is a must until the ground cover is fully established. When weeds are allowed to invade ground cover plantings, they are not only unsightly, but they also compete with the newly planted ground cover. Often, it's impossible to remove weeds once they become established.

A 2-inch layer of mulch, such as peat moss or wood chips, will control 90 % of the weeds. On slopes, coarse netting may be used to hold the slope until the ground cover is established.

Some newer herbicides are highly selective for certain weeds, particularly grasses, and can be used safely on several groundcover species. Read product labels carefully, or consult with your local Cooperative Extension Service office, to choose appropriate materials for a given groundcover and weed combination, even after plants are established.

New plantings will need weekly irrigation until well established. Generally, an inch of water applied weekly will do. Dry slopes and areas of severe competition may need watering during any dry periods.

Ground covers benefit from yearly fertilization. Apply a complete fertilizer such as 12-12-12 at the rate of 1-1/2 to 2 pounds per 100 square feet of area every spring or late fall. Be sure to water after fertilizing.

Some ground covers are improved by occasional shearing. All *Euonymus* species can be clipped at a 4 to 6 inch height. A rotary mower with special high wheels is

ideal. Others, such as lily-of-the-valley, creeping lily turf, and mock strawberry can be clipped with hedge shears when they appear shabby. Shrubs such as junipers can be pruned in the manner appropriate to more upright shrubs.

## Recommended Ground Covers

Ground covers are described by their ornamental characteristics, size, and the USDA Hardiness Zone in the following listing. Ground covers should be selected for their seasonal interest as well as for their use. For quick reference, various ground covers are also itemized according to their specific uses.

### Herbaceous Ground Covers

#### Bugle Weed or Carpet Bugle

*Ajuga reptans*

Height: 4-12 inches, Zone 5

A rapid grower, this species forms a dense carpet of foliage. Plant in shade or partial sun. Provide ample moisture since shallow roots are subject to drying and therefore plant death. The lustrous leaves usually lay flat against the ground. The upright flower stalks produce blue, white, or purplish flowers from early May to mid-June.

'Atropurpurea' - dark bronze leaves

'Variegata' - leaves variegated with creamy yellow

'Rubra' - leaves dark purple

#### Creeping Lily-turf

*Liriope spicata*

Height: 8-12 inches, Zone 5

The green, grasslike foliage makes an excellent dense mass for summer and fall. In winter, the foliage turns to a lighter green. Divisions quickly grow together to form a dense mat. The small, light, lilac-to-white flowers are borne on spikes among the leaves and are not showy. The long, narrow leaves provide good texture as well as a turflike quality. It may suffer from hardiness problems in exposed areas. In zone 5, be sure to avoid *Limuscari*, Big Blue Lily-turf, due to its lack of winter hardiness.

#### Crown Vetch

*Coronilla varia*

Height: 1-2 feet, Zone 4

Especially suited for dry situations on banks, one plant grows rapidly to cover an area over 6 feet in diameter. It is difficult to establish by seeds, so plant by underground stems. Use in naturalized areas where its invasiveness is not a problem. It thrives best in full sun, but will tolerate shade. The compound leaves composed of 11 to 25 leaflets are deciduous. The pinkish white, pea-like flowers are produced in clusters from May to September.

#### Evergreen Candytuft

*Iberis sempervirens*

Height: 12 inches, Zone 4

The plant prefers full sun and moderately rich and moist soil. Attractive throughout the year, it forms a dense mat as its stems elongate, bend to the ground, and root. The small, white flowers produce a superb flower show in May. After flowering, a light clipping will encourage more compact growth. It may need protection in northern areas. Once planted, it should not be moved.

#### Ginger, British Columbia Wild

*Asarum caudatum*

Height: 7 inches, Zone 5

Use in shady areas that have rich, moist soil. The evergreen, heart-shaped leaves are similar to cyclamen and have a very pungent taste. This ground cover is often difficult to establish.

#### Ginger, Wild

*Asarum canadense*

Height: 6 inches, Zone 4

Useful in shade for naturalized effect. Dies to ground in winter, but leathery, dull, heart-shaped foliage has interesting texture.

#### Goutweed or Bishop's Weed

*Aegopodium podagraria*

Height: 6-14 inches, Zone 4

This old favorite is a vigorous grower; it often becomes weedy in unconfined areas. The cultivar 'Variegatum' has green leaves with a white margin, which adds the effect of dappled sunlight in dark, shady areas. Plant in good or poor soil in either sun or shade. The foliage dies to the ground in the winter.

#### Lily-of-the-Valley

*Convallaria majalis*

Height: 8 inches, Zone 2

This rapidly growing ground cover often becomes crowded and needs thinning and fertilization for full flower production. The waxy, white, bell-like fragrant flowers are borne on upright spikes from mid-May to mid-June. Plant in either half or full shade. The large, oval leaves die to the ground each fall. It will grow in poor and dry soil and can become invasive.

#### Plantain Lilies

*Hosta* sp.

Height: 12-24 inches, Zone 3

All Hostas are excellent plants for semi-shade and moist soils. In the winter, the leaves are killed back, leaving the ground bare. Because of the large, coarse leaves and clumpy growth habits, hostas are often used to break up the monotony of small-leaved plants. The lilac, pale lavender, or white flowers are borne on stalks from June to early September. Many white and yellow variegated leaf and blue leaf types are available.

**Fleeceflower, Japanese or Reynoutria***Polygonum cuspidatum* var. *compactum*

Height: 6-18 inches, Zone 3

A vigorous plant for sunny, poor soil, it can easily become an invasive pest. Plant this where it can be contained — such as planting islands in pavement.

**Spotted Dead Nettle***Lamium maculatum*

Height: 6-8 inches, Zone 4

This is a plant for light, alkaline soils. The small leaves have a whitish blotch along the midrib. The purplish flowers are produced on stalks from mid-May to late July. It remains semi-evergreen in warmer climates. It needs little attention, but prefers half-shaded or shaded areas.

**Stonecrop***Sedum* sp.

Height: 2-12 inches, Zone 3/4

Plant in sun or even rather heavy shade. This is one of few ground covers which will tolerate the shade as well as dry soil. Flowers may be white, pink, or yellow. Select species according to bloom and preferred foliage texture. They are ideal plants for rock gardens.

**Strawberry, Barren***Waldsteinia fragarioides*

Height: 4 inches, Zone 4

Appearing similar to the strawberry, with glossy green leaves, this plant is ideal for covering areas in both shaded and sunny situations. It grows into a thick mat of foliage, but requires ample moisture. This fine plant is often overlooked.

**Strawberry, Mock***Duchesnea indica*

Height: 2 inches, Zone 5

This very invasive ground cover is excellent for sunny or shady areas. Similar to the common strawberry, but with smaller leaves, it has a low creeping habit. The yellow flowers are followed by red, non-edible fruit. Use only where it can be contained, or in an informal landscape, where its invasive habit can be tolerated.

**Three-toothed Cinquefoil***Potentilla tridentata*

Height: 2-12 inches, Zone 2

Plant in dry soil in full sun. This ground cover will rapidly become a permanent semi-woody plant, once established. Its dark-green, strawberry-like, lustrous foliage is attractive.

**Yellow Archangel***Lamium galeobdolon*

Height: 1-1 1/2 feet, Zone 4

Vigorous grower in sun or shade with yellow flowers. It has evergreen, variegated leaves. Use only where there is abundant space where it can spread.

**Woody Shrub or Vine Ground Covers****Arnold Dwarf Forsythia***Forsythia* X 'Arnold Dwarf'

Height: 3 feet, Zone 6

This dwarf forsythia forms a moundlike appearance. It rapidly grows twice as broad as it does high, because the long stems quickly root where they touch moist soil. Flowers are scarce. Use in shade or sun, on banks or flat surfaces, for a ground cover requiring little attention.

**Canby Paxistima***Paxistima canbyi*

Height: 12 inches, Zone 5

This evergreen shrub requires an acid, high-organic soil which is well-drained. Plant in full sun or shade. It is ideal for edging acid-loving plantings such as rhododendrons and azaleas. It is often difficult to establish; and may need protection even in northern parts of zone 5.

**Cotoneaster, Bearberry\****Cotoneaster dammeri*\*

Height: 1 1/2-2 feet, Zone 6

This prostrate-growing cotoneaster tends to be semi-evergreen. The leaves are an inch long, dark and shiny above, pale beneath. The flowers are white, clustered like spirea. It produces bright red fruit in late summer.

**Cotoneaster, Cranberry\****Cotoneaster apiculata*\*

Height: 2-3 feet, Zone 5

This small growing cotoneaster is good for hot, dry situations. The small, rounded leaves turn bright red in the early fall after the 3/8-inch bright red berries are produced.

**Cotoneaster, Rock Spray\****Cotoneaster horizontalis*\*

Height: 1-1/2-3 feet, Zone 5

This plant is suited for banks, rockeries, tops of stone walls, or on flat ground where its horizontal branches can easily spread 8 to 10 feet. The small, pinkish flowers are followed by 1/4 inch red berries in the early fall. Best suited for southern Indiana where it may remain semi-evergreen.

\*Note: All cotoneasters are susceptible to red spider mites, lace bug, and scale. Occasional insecticide applications provide easy pest control.

**Dwarf Bush Honeysuckle***Diervilla lonicera*

Height: 3 feet, Zone 5

This coarse-textured plant is suited only for wasteland, especially dry banks. The inconspicuous, yellow, honeysuckle-like flowers are produced in late June. The large leaves turn red in the fall.

### English Ivy

*Hedera helix*

Height 6-8 inches, Zone 5/6

An evergreen climbing or trailing vine, it quickly spreads over large areas. English ivy needs shady situations and can easily be planted in small strips between the sidewalk and house and under trees. Best results are in fairly moist, rich loam, soil sites. Deeply prepared planting sites are necessary. Throughout most of Indiana, winter protection, particularly winter shade, is needed or the vines will brown-off drastically. Cultivars recommended are 'Baltica' and 'Thorndale.'

### Japanese Spurge

*Pachysandra terminalis*

Height: 6 inches, Zone 5

This is an excellent ground cover for shaded areas. It spreads rapidly by underground stolons and is useful for planting under trees and acid-loving plantings where moisture is sufficient. An occasional pinching in the early spring will make the plants more bushy. The cultivar 'Variegata' has leaves variegated with white.

### Juniper, Sargent

*Juniperus chinensis* var. *sargentii*

Height: 18-24 inches, Zone 4

This prostrate juniper forms an evergreen mat 8 to 10 feet across. The steel-blue, small, scalelike foliage is distinctive and remains the same color all winter. It is ideal for sunny locations.

### Juniper, Shore

*Juniperus conferta*

Height: 12 inches, Zone 6

This juniper prefers sunny locations and sandy soil and should be the only juniper used for poor soils in exposed conditions where it is fully hardy. Its coarse texture and ragged appearance make it most suitable for informal landscape situations. Recommended for southern Indiana only.

### Juniper, Creeping

*Juniperus horizontalis*

Height: 12-18 inches, Zone 2

The creeping junipers are ideal evergreen ground covers. New plants may require occasional heading back to force branching, but once established, practically no attention is needed. They are ideal plants for dry soils and city conditions. The species has bluish-green foliage. Other cultivars include:

'Bar Harbor' - has steel-blue foliage. It follows the contour of the ground and forms thick mats.

'Douglasii' - Waukegan Juniper. A trailing form with steel-blue foliage during the summer and a purplish tinge for winter.

'Hughes' - green foliage, follows ground, spreads evenly.

'Plumosa' - feathery, light green foliage, turns purple in the fall. Often troubled by a blight and is no longer recommended.

'Wiltoni' - Wilton or Blue Rug Juniper. A bluish foliage all year round and remains very flat.

### Juniper, Japanese Garden

*Juniperus procumbens*

Height: 2 feet, Zone 5

This low spreading shrub has rather stiff ascending branches and steel-blue foliage. The foliage and branching are quite dense. It is one of the best slow growing junipers. The cultivar 'Nana' grows slowly to 1 foot tall, spreading to 5 foot and is quite picturesque. Both are excellent for rockeries or slopes.

### Memorial Rose

*Rosa wichuraiana*

Height: 12 inches, Zone 5/6

This prostrate rose is a strong grower for use on banks where fast growing shoots can rapidly root and aid in soil erosion control. The white flowers are attractive in mid-July. Plant in full sun or partial shade. Do not use in heavy traffic areas as it tends to collect trash.

### Periwinkle or Myrtle

*Vinca minor*

Height: 6 inches, Zone 4

Plant in partial to heavy shade. Persistent roots help it become quickly established. All cultivars except 'Bowles' are trailing plants which spread quickly in all directions. This plant is troubled by disease and should be used sparingly. Cultivars include:

'Alba' - white flowers

'Atropurpurea' - Purple flowers

'Aureo-Variegata' - leaves spotted with yellow

'Bowles' - light blue flowers, with clump-type plants, giving a taller cover

### Wintercreeper\*

*Euonymus fortunei*

Height: 2-18 inches, Zone 5-6

This clinging evergreen vine makes an extremely hardy ground cover. The vines root easily where they come into contact with moist soil. Plant in either full sun or shade. Since they will attach by holdfasts, the vines climb up any upright support quickly, but can be damaging to brick walls. Cultivars include:

Colorata' - Wintercreeper, Purpleleaf. This selection of euonymus is one of the most vigorous and satisfactory for Indiana conditions. It is known for its purplish-red autumn color, which remains throughout the winter. It roots along the vines and quickly makes a mass carpet.

'Kewensis' - Wintercreeper, Kew. The smallest leafed wintercreeper, this vine grows rather slowly and should not be used for large-scale plantings. It lacks ruggedness for Indiana conditions. Use between rocks, or as an evergreen edging for a small space.

'Minima' - Wintercreeper, Baby. This vine is similar to Kew Wintercreeper, except that the leaves are

slightly larger.

'Radicans' - Wintercreeper, Common. This vine grows more uniform in size and leaf shape and faster than the smaller leaved selections. It has smaller and less pointed leaves than *E. fortunei*. It's one of the most serviceable of all the wintercreepers.

**Note:** All wintercreepers are subject to scale insects, which, if left unchecked, can quickly cause the leaves to fall and the branches to die. They are controlled by insecticide sprays.

The following quick references will help locate ground covers for specific situations:

#### **Evergreen Ground Covers for Shady Locations**

Canby Paxistima  
 Creeping Lily-turf  
 English Ivy  
 Japanese Spurge  
 Periwinkle or Myrtle  
 Wintercreeper  
 Yellow Archangel

#### **Evergreen Ground Covers for Sunny Locations**

Evergreen Candytuft  
 Juniper, Creeping  
 Juniper, Japanese Garden  
 Juniper, Sargent  
 Juniper, Shore  
 Memorial Rose  
 Three-toothed Cinquefoil  
 Wintercreeper  
 Yellow Archangel

#### **Deciduous Ground Covers for Shade or Partial Shade**

Bugle-Weed or Carpet Bugle  
 Ginger, British Columbia Wild  
 Ginger, Wild  
 Goutweed or Bishops Weed  
 Lily-of-the-valley  
 Spotted Dead Nettle  
 Stonecrop

#### **Deciduous Ground Covers for Sunny Locations**

Bearberry Cotoneaster  
 Cranberry Cotoneaster  
 Crown Vetch  
 Mock-Strawberry  
 Rock Spray  
 Stonecrop

#### **Invasive Ground Covers**

Bugle-weed or Carpet Bugle  
 Crown Vetch  
 Goutweed or Bishops Weed  
 Lily-of-the-valley  
 Mock-Strawberry  
 Reynoutria Fleece-flower  
 Yellow Archangel

---

For more information on the subject discussed in this publication, consult your local office of the Purdue University Cooperative Extension Service.

---