

Drip Irrigation Systems for Home Gardens



Drip or micro-irrigation system, uses a network of plastic pipe to carry a low flow of water under low pressure to plants. Water is applied much more slowly than with a sprinkler system.

A drip irrigation system is 90 percent efficient. A sprinkler system is 50 to 70 percent efficient. A drip irrigation system is so efficient that many water utilities exempt landscapes irrigated with a drip irrigation system from water restrictions during a drought.

Note that any irrigation system is only efficient as the watering schedule used. If irrigation systems are set to water excessively, any irrigation system can waste water.

A low volume application of water to plant roots maintains a desirable balance of air-water balance and even soil moisture. Water is applied frequently at a low flow rate with the goal of applying only the water plants need. Sprinkler irrigation systems result in a greater wet-to-dry fluctuation in the soil and may not produce optimal growth results.

Drip irrigation systems are more widely available and better designed for use in home gardens than ever before. When combined with a controller, drip irrigation systems can be managed with ease.

Advantages

A Drip irrigation system delivers water slowly immediately above, on or below the surface of the soil. This minimizes water loss due to runoff, wind and evaporation.

The mold spots on house siding and the staining and deterioration of wood privacy fences experienced with overspray from sprinkler irrigation system is eliminated with the use of a drip irrigation system. Because water doesn't leave the landscape with a drip irrigation system, pavement deterioration associated with a sprinkler irrigation system runoff is eliminated.

Low volume requirements of a drip irrigation system are a good match with restricted supply lines.

Drip systems can be managed with an AC or battery.

DRIP IRRIGATION & GROUND COVERS



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Ground Covers

A ground cover is any low-growing plant that can be used to cover an area in landscaping. Ground covers can provide a surprising amount of residential energy savings during Florida's 5 to 7 months of high temperatures.

Plants release water through pores in their leaves. As warm air passes over leaf surfaces, heat is absorbed by the water, which then evaporates, and lowers the air temperature. This interaction can lower air temperatures immediately surrounding vegetation by as much as 9°F (5°C). The larger the leaf-surface area in the landscape, the more cooling effects.

Paved surfaces around your home contribute substantially to summer heat loads. These surfaces absorb the sun's heat or reflect it back into the immediate environment, increasing the amount of discomfort experienced by people during the day. Paved areas also store heat during the day. Keeping temperatures high around the home even after sunset. Temperatures over ground covers can be 15 to 25°F (8.3 to 14°C) lower than over asphalt or concrete.

TYPES OF GROUND COVERS:



Miniature Agave has a high drought tolerance and grows 6". It requires full sunlight to part shade and has glossy, green leaves with white on the underside. This plant does well on banks, slopes, edging and open areas.



Golden Creeper has a high drought and salt tolerance. This plant also tolerates poor conditions and neglect. It grows 12-36" and has yellowish-green leaves. This plant does well on banks, slopes, seaside and open areas.



Small Leaf Jasmine has a medium drought and salt tolerance. It grows 8-12" and prefers full sunlight to part shade. It has dark, glassy, green leaves and forms a thick mat that keeps weeds from growing. This plant does well under trees, on banks, slopes and open areas.



Shore Juniper is a fast grower and has a high drought and salt tolerance. It will grow 1 to 2' and prefers full sunlight to part shade. It has green to blue-green leaves. This plant does well on banks, slopes, edging, seaside and open areas.



Chinese Juniper has a high drought tolerance and it will grow 1 to 3'. This plant prefers full sunlight and has blue-gray to green leaves. This plant does well on banks, slopes, edging and open areas.



Ice Plant has a high drought and salt tolerance. It grows 6" and prefers full sunlight. It has green to grayish-green leaves and rose-purple flowers in the summer and fall. This plant does well on the sea side and open areas.



Algerian Ivy has a medium drought, a high salt and wet tolerance. It grows 6" and prefers shade. The leaves are dark green. This plant does well under trees, on banks, slopes and edging.



English Ivy has a medium drought and a high salt tolerance. It will grow 6" and prefers shade. The leaves are dark green and will climb up trees and walls. This plant does well under trees, on banks, slopes and edging.



Morning Glory has a high drought and salt tolerance. It will grow 4 to 6" and prefers full sunlight. It has light green leaves and pink-lavender flowers in the summer. This plant does well on banks, slopes, seaside and open areas.



Dwarf Lantana has a high drought and a medium salt tolerance. It grows 8" and prefers full sunlight. It has light green leaves and yellow flowers all year long. This plant does well on banks, slopes and open areas.



Lily Turf has a high drought tolerance and will grow 12". It prefers shade and has dark green leaves, purple flowers in the spring followed by black fruit. This plant does well under trees, on banks, slopes and edging.



Creeping Lily has a high drought tolerance and will grow 6-18". It prefers shade and has dark green leaves, purple to white flowers in summer. This plant does well under trees, on banks, slopes and edging.



Dwarf Lily has a high drought tolerance and will grow 6-12". It prefers shade and has dark glossy green leaves. This plant does well under trees, on banks, slopes, edging and sea side.



Aloe has a high drought and salt tolerance and grows 12". It requires full sunlight to part shade and has bi-colored leaves; red, orange or yellow flowers in the summer. This plant does well on banks, slopes, seaside and open areas.



Creeping Fig has a high drought and salt tolerance. It will grow 12" and prefers full sunlight to part shade. It has fine textured green leaves. Occasional shearing is required. It will climb up walls and trees; stems grow thick and woody with age. This plant does well on banks, slopes and sea side areas.



Daylily is relatively pest free and has a high drought and salt tolerance. It will grow 6 to 12" and prefers full sunlight to part shade. It has light green leaves and summer flowers in yellow, pink and orange. This plant does well on banks, slopes and sea side areas.



Bahia Grass is a popular low-maintenance lawn grass for infertile soils. This grass forms an extensive root system, which makes it one of the most drought tolerant grasses. It performs well in fertile, sandy soils and does not require a lot of fertilizer. It can be grown from seeds which is abundant and relatively cheap. It may also be established from sod, sprigs or plugs. It has few disease problems and mole crickets are the only insect problem. The best time to plant bahia grass is spring early summer.

Do not apply more than 1/2 lb of water-soluble nitrogen per 1000 square feet at any time. Two weeks following spring regrowth, apply a complete fertilizer such as 16-4-8 at the rate of 1/2 (water-soluble) to 1 (slow-release) pound of nitrogen per 1000 square feet. March should be a complete fertilizer application. May should be a iron only application and August should be a complete fertilizer application.

Bahia grass should be mowed every 7 to 14 days at 3 to 4" of height. This promotes deeper more extensive root system that enables the grass to better withstand drought stress.

Bahia grass should be watered when the leaf blades begin to fold up, wilt, turn blue-gray in color, or when footprints in the grass remain visible after walking on the grass. Apply 3/4 to 1" of water per application. This will apply water to the top 8 inches of soil, where the majority of the roots are.