

Shallow Rooted Plants for Using on Drain Fields

Herbaceous annuals:

- ◆ Ageratum or floss flower (*Ageratum houstonianum*)
- ◆ Begonia—Wax (*Begonia semperflorens*)
- ◆ Coleus (*Coleus species*)
- ◆ Geranium (*Pelargonium x hortorum*)
- ◆ Lobelia (*Lobelia erinus*)
- ◆ Marigold (*Tagetes patula*)
- ◆ Petunia (*Petunia x hybrida*)
- ◆ Salvia (*Salvia species*)
- ◆ Sweet Alyssum (*Lobularia maritime*)
- ◆ Zinnia (*Zinnia elegans*)

Herbaceous perennials:

- ◆ Armeria or Sea thrift (*Ameria maritime*)
- ◆ Astilbe (*Astilbe x arendsii*)
- ◆ Basket of Gold (*Aurinia saxatilis*) - can also be used as a ground cover
- ◆ Campanula or Bellflower (*Campanula species*)
- ◆ Candytuft (*Iberis sempervirens*)
- ◆ Coral Bell (*Heuchera sanguinea*)
- ◆ Cottage (and other) Pinks (*Dianthus species*)
- ◆ Lavender (*Lavandula angustifolia*)
- ◆ Lily of the Valley (*Convallaria majalis*)
- ◆ Snow-in-Summer (*Cerastium tomentosum*)
- ◆ Sweet William (*Dianthus barbatus*)

Ground Covers (all perennial):

- ◆ Bunchberry (*Cornus Canadensis*)
- ◆ Carpet Bugle (*Ajuga reptans*)
- ◆ Hens and Chicks (*Sempervivum tectorum*)
- ◆ Irish Moss or Scotch Moss (*Sagina subulata* syn. *Arenaria verna*)
- ◆ Kinnickinnik (*Arctostaphylos uva-ursi*)

- ◆ Pachysandra (*Pachysandra terminalis*) - shaded areas only
- ◆ Stone Crop (*Sedum species*)
- ◆ Sword Fern (*Polystichum munitum*)
- ◆ Thyme (*Thymus species*)
- ◆ Wintergreen (*Gaultheria procumbens*)

Wildflowers:

- ◆ Prairie Onion (*Allium stellatum*)
- ◆ Pussytoes (*Antennaria neglecta*)
- ◆ Blazing Star (*Liatris aspera*)
- ◆ Butterfly Weed (*Asclepias tuberosa*)
- ◆ Bigleaf Aster (*Aster macrophyllus*)
- ◆ Pennsylvania sedge (*Carex pensylvanica*)
- ◆ Prairie Clover (*Dalea spp.*)
- ◆ Purple Coneflower (*Echinacea angustifolia*)
- ◆ Wild Geranium (*Geranium maculatum*)
- ◆ Wild Bergamont (*Monarda fistulosa*)
- ◆ Penstemon (*Penstemon spp.*)
- ◆ Pasqueflower (*Pulsatilla patens*)
- ◆ Violets (*Viola spp.*)

Grasses:

- ◆ Sideoats grama (*Bouteloua curtipendula*)
- ◆ Blue Fescue (*Festuca ovina* 'Glauca')
- ◆ Blue grama (*Bouteloua gracilis*)
- ◆ Little bluestem (*Schizachyrium scoparium*)
- ◆ Prairie dropseed (*Sporobolus heterolepis*)
- ◆ June Grass (*Koeleria macrantha*)

In Conclusion

Following these suggestions will help you successfully landscape your entire yard, including problem areas such as a drain field and septic area.

Landscaping Septic Drain Fields: Do's and Don'ts for Planting on Drain Fields



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Landscaping Septic Drain Fields

Kittitas County rural inhabitants are faced with unique challenges for landscaping their septic drain fields. The challenges are unique because of the underground structure of the drain field and the importance of keeping it functioning properly and free of damage.

How Drain Fields Function

A drain-field, or leach field, is a series of relatively shallow (a minimum of 6 inches below the surface) underground, perforated pipes set in gravel trenches that allow septic tank effluent to drain over a large area. As the effluent seeps into the ground, it is purified by the soil.

Plant cover helps your septic drain system to function at its best by removing moisture and nutrients from the soil. Permanent vegetation cover is required to minimize topsoil loss. Open sites are more susceptible to frost, heaving and erosion. Plants trap snow, which acts as mulch and prevents erosion.

Characteristics of Desirable Plants for Drain Fields

On a drain field, plants must have shallow roots, require little or no watering, and are low maintenance. Shallow rooted plants are necessary to avoid clogging the drainpipes and causing damage. Grasses are the most ideal because they have fibrous root systems that stabilize the soil and prevent erosion, provide year round cover, and have a high evapo-transpiration rate. Meadow grasses or

a mixture of turf grasses like perennial rye and some broadleaf flowers (such as yarrow) can look good and require little maintenance.

Small, shallow-rooted ornamental grasses (for instance, *Festuca ovina* 'Glaucua', 4-10 inches) can also be good looking. Very tall grasses such as *Stipa gigantea* aren't appropriate, because of their deep roots.

Other possibilities are low-growing ground covers. Bugleweed (*Ajuga reptans*) and vinca (*Vinca minor*) grow vigorously and will fill in quickly. The native kinnickinnick (*Arctostaphylos uva-ursi*) grows well in full sun, is known for its drought tolerance, but is slow to establish. Avoid over-active plants like English ivy (*Hedera helix*).

Trees and Shrubs for Drain Fields

When planting shrubs and trees remember that the larger the plant the more extensive the root system. A general rule of thumb to keep in mind is that the roots spread the same distance from a plant as is the height of the plant. For example, a 20' tree will have a 20' radius of roots around it. Be sure you know what the full-grown height will be of the shrub or tree you wish to plant so that it will grow as a safe distance from the drain field. Most trees should be planted 20' to 30' away.

Use plants that do not like water or we soils. Trees known for seeking water, such as poplar, maple, willow, and elm should be planted a minimum of 50' away or avoided altogether. Better choices include:

Trees

All trees listed are between 6' and 25' tall

- ◆ English Hawthorn (*Crataegus laevigata*)
- ◆ European Filbert (*Corylus avellana*)
- ◆ Glossy Buckthorn (*Rhamnus frangula*)
- ◆ Japanese Flowering Crabapple (*Malus floribunda*)
- ◆ Nanking or Manchu Cherry (*Prunus tomentosa*)
- ◆ Sargent Crabapple (*Malus sargentii*)
- ◆ Siebold Viburnum (*Viburnum sieboldii*)
- ◆ Willowleaf Pear (*Pyrus salicifolia*)

Shrubs

All shrubs listed grow between 2' and 15' tall

- ◆ Buttercup Winterhazel (*Corylopsis platyptala*)
- ◆ Dwarf Currant (*Ribes alpinum*)
- ◆ Dwarf Flowering Almond (*Prunus glandulosa*)
- ◆ Japanese Flowering Quince (*Chaenomeles japonica*)
- ◆ Japanese Spirea (*Spiraea japonica*)
- ◆ Mock Orange (*Philadelphus hybrids*)
- ◆ Red Chokecherry (*Aronia arbutifolia*)
- ◆ Slender Deutzia (*Deutzia gracilis*)
- ◆ Wintercreeper Euonymus (*Euonymus fortunei*)



Vegetable Gardens and Drain Fields

Vegetable gardening is not recommended, especially root vegetables. Vegetable gardens require heavy watering, which reduces the ability of the system to treat wastewater. Rototilling or double digging could cause damage to the underground pipes, and the need for high maintenance increases traffic and compacted paths.

Vegetable Gardens and Drain Fields -

continued

Minimize traffic, both human and animal to avoid soil compaction, which interferes with the oxygen in the soil necessary to breakdown the effluent in the drain field. Some experts advise using gloves whenever coming in contact with the soil, as sewage effluent is distributed through the soil in the drain field area. Additionally, leachate from drain fields may carry pathogens that can be harmful to humans, which might be consumed when using vegetables that have been grown on a septic drain field site.

Hints for Planning Landscapes with Drain Fields

When making your landscape plans always remember to leave accessibility for repairs and maintenance of your septic tank and drain field.

Root barriers (geotextiles impregnated with long-lasting herbicide that kills plant roots) have been used, but can be expensive.

Plastic groundcover material to minimize weeds restricts oxygen transport and interferes with the treatment process.

Even though there are restrictions to consider when landscaping over a drain field, there are many plant options available (see list below). Remember that the proper functioning of your septic system is the main objective.