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Home & Environment

Landscaping Over Septic Systems with Native Plants

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Septic system components sometimes have unsightly aboveground pipes, risers, ventilation systems, or large mounds. Homeowners can improve the appearance of these items through landscaping, but they must take care to choose plants that grow well without interfering with septic system operation.

This publication describes landscaping with native plants on and around septic systems.

Basic Septic System Components

There are two types of septic systems common in Indiana:

- **Subsurface trench systems** discharge wastewater into a series of trenches either by gravity or pump.
- **Mound systems** discharge wastewater into a trench encased in a 3- to 4-foot tall mound of sand before it enters the soil.

The area where any kind of septic system discharges wastewater is called the soil absorption field. All soil absorption fields must be covered with 12 inches of soil. Make sure that the soil covering your septic system is topsoil, not subsurface soil. Also, make sure the topsoil covering your septic system matches the surrounding landscape. Topsoil is dark-brown, whereas subsurface soil is brown or gray. Work with your installer and insist on topsoil rather than subsurface soil.

For more information about soils, see Purdue Extension publication HENV-7-W, *Indiana Soils and Septic Systems* (www.ces.purdue.edu/extmedia/HENV/HENV-7-W.pdf).

Use Plants Suited to Dry Soils

In a properly functioning septic system, wastewater effluent moves down and laterally through the soil. In addition, a properly designed soil absorption field will be crowned — that is, the soil will be mounded so that water will run off of the soil absorption field rather than onto it. Due to the crowned surface and because septic system components are often near the surface, the water-holding capacity of the soil absorption field is lower than the surrounding lawn. As a result, the topsoil above septic systems will be drier than the surrounding landscape. That means that the plants you place over soil absorption fields should be able to tolerate dry soil conditions.

Foxglove beardtongue (Penstemon digitalis).

Select Low-Maintenance Plants

To keep your septic system functioning properly, it's important to minimize traffic on or near the soil absorption field. Too much traffic can compact the soil, which reduces soil porosity and compromises the soil's ability to disperse septic tank effluent. So, select low-maintenance plants that do not need regular tending and care for use over a septic system.

Herbaceous plants, like turfgrasses, are good choices for soil absorption fields. Turfgrasses are durable, resilient, and desirable because of their fibrous root systems that hold soil in place. Once established, these grasses also provide a low-maintenance cover.

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For more about seeding turfgrass, see Purdue Extension publications AY-20, *Seeding a Turf Area in the Spring* (www.agry.purdue.edu/turf/pubs/ay-20.pdf); and AY-3-W, *Establishing Turfgrass Areas From Seed* (www.agry.purdue.edu/turf/pubs/AY-3.pdf).

Consider Native Plants

Native plants are an alternative to the conventional turfgrass found in most managed landscapes. Native plants originated in or were dispersed to an area through natural processes rather than being transported by human activity. The plants recommended below are native to Indiana, although not necessarily all regions of the state.

The following tables group native plants by type: wildflowers, sedges, and grasses. Native grasses usually tolerate dry conditions very well, but may not tolerate regular mowing. Homeowners can combine native wildflowers and native grasses to form meadows over the soil absorption field. When using native plants, select

Native Wildflowers

Common Name	Scientific Name	Bloom Color	Bloom Season	Light Requirement
wild garlic[1]	*Allium canadense*	white/pink	May-July	sun
nodding wild onion	*Allium cernuum*	white	June-September	sun
field pussytoes[1]	*Antennaria neglecta*	red	April-June	sun
wild columbine	*Aquilegia canadensis*	pink/yellow	early summer	part shade, shade
butterflyweed	*Asclepias tuberosa*	orange	June-September	sun, part shade
sand coreopsis	*Coreopsis lanceolata*	yellow	May-August	sun, part shade
prairie coreopsis	*Coreopsis palmata*	yellow	June-July	sun, part shade
white prairie clover	*Dalea candida*	white	June-October	sun
purple prairie clover	*Dalea purpurea*	purple	June-September	sun
pale purple coneflower	*Echinacea pallida*	pink, purple	May-July	sun
purple coneflower	*Echinacea purpurea*	purple	July-August	sun, part shade
rattlesnake master	*Eryngium yuccifolium*	white	July-September	sun
bigleaf aster	*Eurybia macrophylla*[3]	white, purple	July-October	part shade
wild geranium	*Geranium maculatum*	pink	April-July	part shade
western sunflower	*Helianthus occidentalis*	yellow	July-October	sun
prairie sunflower	*Helianthus pauciflorus*	yellow	July-October	sun
false sunflower[2]	*Heliopsis helianthoides*	yellow	June-October	sun
rough blazing star	*Liatris aspera*	purple	August-September	sun
sundial lupine	*Lupinus perennis*	blue, purple	May-July	sun
wild bergamot	*Monarda fistulosa*	white, pink, purple	June-October	sun, part shade
foxglove beardtongue	*Penstemon digitalis*	white	May-July	part shade
black-eyed Susan	*Rudbeckia hirta*	yellow	June-October	sun, part shade
brown-eyed Susan	*Rudbeckia triloba*	yellow	August-October	sun, part shade
old field goldenrod	*Solidago nemoralis*	yellow	August-November	sun, part shade
showy goldenrod	*Solidago speciosa*	yellow	August-November	sun, part shade
smooth blue aster	*Symphyotrichum laeve*[3]	blue, purple	August-October	sun
birdfoot violet[1]	*Viola pedata*	blue, violet	April-August	part shade

[1]May be difficult to find commercially.
[2]Very aggressive and spreading.
[3]Often assigned to the genus *Aster*.

Native Sedges

Common Name	Scientific Name	Height (feet)	Bloom Season	Light Requirement
Bicknell's sedge	*Carex bicknellii*	3-4	late spring	sun, part shade
shortbeak sedge	*Carex brevior*	1	early-mid summer	sun
troublesome sedge	*Carex molesta*	3	late spring	sun
Pennsylvania sedge[1]	*Carex pensylvanica*	1	spring-summer	part shade
Texas sedge	*Carex texensis*	1	April-June	sun, part shade

[1]May be difficult to find commercially.

Native Grasses

Common Name	Scientific Name	Height (feet)	Bloom Season	Light Requirement
splitbeard bluestem	*Andropogon tenarius*	1.5-4	August-November	part shade
sideoats grama	*Bouteloua curtipendula*	2-3	June-November	sun, part shade
prairie brome	*Bromus kalmii*	2-3	June-August	sun
Indian wood oats	*Chasmanthium latifolium*	2-4	June-September	part shade, shade
Canada wild rye	*Elymus canadensis*	2-4	Mar.-June	part shade, shade
June grass	*Koeleria macrantha*	1-2	April-June	sun
threeflower melicgrass[1]	*Melica nitens*	3-5	Mar.-May	part shade
switchgrass	*Panicum virgatum*	3-6	August-November	sun, part shade
western wheatgrass	*Pascopyrum smithii*	2-3	May-June	part shade
little bluestem	*Schizachyrium scoparium*	3	September	sun, part shade
prairie dropseed	*Sporobolus heterolepis*	2	June-August	sun

[1]May be difficult to find commercially.

species that are best suited to the growing conditions where they will be planted. Your local garden center can provide you with information to help you select the right plants.

Hiding Aboveground Components

Many septic systems have pipes or access risers that are at least a few inches above the surface. Using covers such as face rocks and bird feeders are common ways to disguise these system components. However, be sure all such covers can be removed to allow for maintenance.

Plants also can conceal surface septic system components. Shrubs or tall grasses and wildflowers can conceal access ports associated with risers above septic tanks and pump tanks.

The top of the septic tank may be near the soil surface, which means the shallow soil will have a limited water holding capacity for plants. So, just as with plants above soil absorption systems, select drought-tolerant species to place around the septic tank. While shrubs can be used around the septic tank, do not place them where their roots can interfere with the soil absorption field trenches and drain pipes. For most shrub species, 10 feet outside of the septic system soil absorption field (and curtain or perimeter drain if present) will be sufficient.

Prairie dropseed (Sporobolus heterolepis).

Native Shrubs

Common Name	Scientific Name	Minimum Root Depth (inches)	Height (feet)	Bloom Color	Bloom Season	Light Requirement
bearberry	*Arctostaphylos uva-ursi*	10	0.5	pink	spring	sun, part shade
New Jersey tea	*Ceanothus americanus*	14	3	white	June-July	part sun, sun
sweetfern	*Comptonia peregrina*	14	2			part shade
bush honeysuckle	*Diervilla lonicera*	16	3	orange	summer	part shade
black huckleberry	*Gaylussacia baccata*	14	3	white	late spring	sun or shade
golden St. John's wort	*Hypericum frondosum*		4	yellow	summer	sun, part sun
shrubby St. John's wort	*Hypericum prolificum*	10	3	yellow	summer	sun, part shade
shrubby cinquefoil	*Potentilla fruticosa*	18	3	yellow	summer	sun, part shade
smooth rose	*Rosa blanda*		2-5	pink	summer	sun, part shade
Carolina rose	*Rosa carolina*	12	1-3	pink	summer	sun, part shade
climbing rose	*Rosa setigera*	6	6	pink	spring-summer	sun, part shade
white meadowsweet	*Spiraea alba*	12	3	white	summer	sun, part shade
hardhack	*Spiraea tomentosa*	14	4	purple	summer	sun
deerberry	*Vaccinium stamineum*	12	3	white	summer	part shade
maple leaf viburnum	*Viburnum acerifolium*	14	6	white	late spring	sun or shade
downy arrowwood	*Viburnum rafinesqueanum*	14	6	white	late spring	part shade
coral berry	*Symphoricarpos orbiculatus*	18	4	white	spring	part shade

While all of the plants listed in this publication can be grown on or near septic systems, that doesn't mean they will be suitable for all locations. For example, climbing rose *(Rosa setigera)* might be suitable for a naturalized location, but will be too big and sprawling for a formal garden and may be a nuisance to work around if system repairs are necessary. Climate, soils, and personal tastes will vary from one garden to another.

Landscaping Tips

When landscaping around septic systems, here are some things to remember:

1. **Start early.** The earlier in the process that you express your landscape preferences to the system designer, the more options you will have.
2. **Identify potential septic system locations before you design or build a house.** If the building site doesn't have an acceptable site for the septic system, it will not be an acceptable site for the home.

Purple coneflower (Echinacea purpurea).

3. **Know your set back limitations from wells, property boundaries, streams, lakes, and ponds.** See your local health department environmental health specialist for this information.
4. **Never disturb the soil in any potential septic system location before system construction begins.** The soil must remain in its natural state until the system is installed. This includes minimizing soil compaction, so keep traffic off the area.
5. **Wear gloves when handling the soil over a septic system to minimize your contact with it.**
6. **Never use plants that prefer wet soils (like willows) near septic systems.** The root systems of these plants can interfere with the system. Root barriers (for example, geotextile fabric impregnated with a long-lasting herbicide) placed around the outside of the soil absorption field have the potential to prevent roots from invading trench drain pipes, however, installation is expensive and unnecessary with proper plant selection.
7. **Never plant trees or shrubs (woody species) over soil absorption fields.** They should be planted far enough from the absorption field that their roots won't reach it. This is approximately 20-50 feet for trees and 10 feet for shrubs.
8. **Minimize watering and fertilizing over the soil absorption field area.**
9. **Minimize traffic over the septic system.**
10. **Never place plants meant to be eaten (fruits or vegetable plants) over septic systems.**

Additional Information

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