

Using Plants as “Indicators” for Diagnosing Turf Problems



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Many plants, both “weed” and desired species, can be helpful in pointing out certain turf/soil conditions. This can be useful when attempting to diagnose and correct turf problems. When using plants as indicators, keep in mind the following considerations:

- Many plants are very adaptable across a wide range of conditions. Therefore, it is advisable to also use other diagnostic tools such as soil testing.
- Do not use single plants to judge a condition. Use plant communities.
- Use the healthiest plants as indicators. Stunted, poor-growing plants may be growing in their own marginal conditions.
- Perennials are the most reliable because they must live longer in one place. Annuals often appear over a wider range of conditions.

<u>Turf/soil conditions</u>	<u>Plants that may be useful indicators</u>
Droughty conditions:	Birdsfoot trefoil, crabgrass, silvery cinquefoil, rabbit foot clover, pigweed, speedwell, leafy spurge, prostrate spurge, yarrow, yellow woodsorrel, goosegrass, curly dock
Poor drainage:	Nutsedge, barnyardgrass, creeping bentgrass, buttercups, corn chamomile, coltsfoot, docks, lady’s thumb, plantains
Excess surface moisture:	Algae, moss, creeping bentgrass, annual bluegrass, cinquefoils
Low pH:	Sheep sorrel, rabbit foot clover, coltsfoot, docks, English daisy, hawkweeds, knawel, lady’s thumb, common mullein, and wild strawberry
High pH:	Common plantain, wild carrot, corn chamomile, hop clover
General low fertility:	Wild carrot, cinquefoil spp., henbit, common mullein, wild parsnip, wild radish, foxtail spp., mallow
Low nitrogen:	Clover species, birdsfoot trefoil, black medic, vetch species
Compaction:	Prostrate knotweed (with bluish-green leaves), goosegrass, pineapple weed, corn speedwell, annual bluegrass, broadleaf plantain, prostrate spurge
Mowing too low:	Annual bluegrass, chickweeds, speedwell, moss, creeping bentgrass
Shade:	Moss, mouse-ear chickweed, common chickweed, creeping speedwell

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Warning! All pesticides are poisons. Use them only as a last resort!

Before using any insecticide, herbicide, or fungicide: 1) Know your problem. Positively identify the insect or disease. 2) Monitor the problem. Is treatment necessary? 3) Use non-chemical cultural controls first. 4) If you must use a chemical control, *carefully follow all directions and safety precautions on the label!*

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