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## Lawn Thatch Buildup

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Excessive thatch can be detrimental to your lawn. Here's what to do.

### SUMMARY

Many turf species are prone to excess thatch build-up. Reducing excess thatch should be part of your regular lawn maintenance program. Coring and dethatching, coupled with proper watering, fertilizing and mowing are the best approaches.

### Q: Why is lawn thatch a problem & what can a gardener do about it?

A: As grass roots and stems have high cellulose content, they decay slowly and tend to accumulate faster than they can decompose. This imbalance leads to the development of thatch, a tightly-knit layer of living and dead grass plant parts that builds up in lawns of certain turfgrasses. Thatch buildup is most prevalent in turf species with a creeping habit such as bermudagrass, bentgrass, and Kentucky bluegrass.

### Some Thatch Is Beneficial:

In its early stages of accumulation on the soil surface, beneath the blades of grass, thatch is considered beneficial. At half an inch in thickness, it helps minimize soil compaction, limits weed growth, prevents water evaporation, and protects grass crowns from frost and traffic damage.

However, over time, that half-inch layer can build up into an impenetrable barrier used as a breeding environment for fungal diseases (the major cause of turf problems)

and insect pests. The protective insulation of thatch now becomes impermeable to water. This leads to thirsty, stressed, and stunted grass roots. Fertilizers are intercepted and made unavailable to turfgrass and fungi and pest insects find safe harbor in its dense mesh, thus escaping chemical controls.

### Reduce and Prevent Thatch:

Homeowners can adopt thatch reduction and prevention practices as part of their regular lawn maintenance program. Reduction of thatch buildup depends on proper lawn aeration, and dethatching.

### Coring Speeds Decomposition:

Encouraging microbial activity through mechanical aeration using coring aerifiers (roller-type or piston-driven) can speed up thatch decomposition. Aeration involves bringing up small cores of microbe-containing soil and depositing them on the grass surface. As the soil cores slowly penetrate the grass layer, tiny organisms help in the thatch decomposition process.





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### **Mechanical Removal Can Help:**

Dethatching with vertical mowers (also called verticutters) effectively rakes up the thatch debris and deposits it on top of the grass for easy removal. A dethatching rake, available at lawn and garden stores, is recommended for use on small lawns. Lawns recover more quickly from dethatching in mid to late spring or early fall, as those times coincide with their growth seasons.

### **Beneficial Lawn Care Methods:**

Care taken with lawn nutrition, mowing and irrigation practices is key to keeping turfgrass healthy and preventing thatch buildup.

Moderate use of nitrogen, in small, frequent applications benefits turf, and top-dressing with fine, organic material improves moisture retention. Microorganisms thrive in such an environment and are better able to perform their job of breaking down accumulated organic matter.

Mowing heights for turf species vary. As mowing cuts down a grass leaf's photosyn-

thesizing, food-producing area, it is recommended not to remove more than one third of a leaf blade during mowing. Close mowing or scalping a lawn stresses the plants and encourages weed emergence in the weakened lawn. It also taxes the turf plant's resources during the healing of the cut. Remove clippings from lawn surface if too much of the grass was cut at one time.

Lawns benefit from regular, deep watering. Light sprinkling encourages roots to develop near the surface and, if these roots are not watered frequently, they could dry out, die, and become part of the thatch problem. Early morning hours between 2 and 8 a.m. are optimal for lawn irrigation. Thatch is very susceptible to disease development if it is watered in the early evening or at night.

### **For More Information:**

You can find more information about lawn thatch management at:

<http://www.ipm.ucdavis.edu/TOOLS/TURF/MAINTAIN/thatch.html>.



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