

## DETHATCHING

Thatch is a problem only when it becomes too thick. A layer of thatch 1/4 to 1/2 inch thick is beneficial to the lawn. It buffers soil temperatures and adds to the resilience of the lawn, thereby reducing the compaction of soil that can result from heavy use.

When too thick, however, thatch is water repellent. Conscientious gardeners may think they are watering enough, when in fact the water never reaches the soil. Grass roots that grow in the thatch layer instead of in the soil are less drought resistant, since the moisture in the thatch evaporates faster than the moisture that penetrates the soil.

While all lawn grasses can develop thatch, it accumulates the fastest in lawns composed of creeping grasses. Notorious thatch builders include:

- Warm-season grasses such as bermuda, St. Augustine and zoysia
- Cool-season grasses such as bentgrass and Kentucky bluegrass
- In extremely acid soils, where the microorganisms that decompose thatch are less active

Insects and diseases find thatch a particularly suitable place to inhabit. Since water does not penetrate it readily, neither do pest and disease control products. It may take two to three weeks to control soil insects like grubs under a lawn with thatch — as opposed to half that long in a thatch-free lawn.

Finally, because the thickness and density of thatch varies, lawn mowers are more likely to cut unevenly, causing scalping.

**(Note: dethatching is not recommended for certain lawns, such as St. Augustine.)**

### Is it time to dethatch?

Dethatching is typically performed every other year, although the actual frequency depends on the type of grass. Examining your lawn is the best way to tell whether it needs dethatching. Use a knife to remove a three-sided plug of lawn to see how deep the thatch is. The thatch is visible as a layer of peat-like material between the grass plants and the soil. Experienced greens keepers can tell how thick the thatch layer is by walking across the turf. Excess thatch gives the lawn a spongy feel underfoot.

### When to dethatch

Dethatching damages the grass plants. So the best time to dethatch is just before a lawn has its most vigorous growth of the season — that way it has time to recover. Dethatch warm-season grasses with the beginning of warm weather in late spring. Prime time for dethatching cool-season grasses is early fall. A period of good growing conditions, such as during the fall, helps them to recover quickly.

[Aeration](#) is the most useful treatment for moderate thatch. For heavier thatch, several remedies are available. Soil penetrants, or wetting agents, counteract the hydrophobic (water barrier) character of thatch, but only briefly. Bacterial agents that help break down thatch have proved somewhat effective, though again not long lasting. Thatching rakes with knifelike blades instead of teeth are useful for small lawns. Special attachments for rotary mowers, such as thatching rakes, may be helpful.

## **How to dethatch**

The most effective way to dethatch a home lawn is with a vertical mower. Resembling a heavy-duty power mower, a vertical mower has a series of revolving vertical knives that cut and pull through the thatch and bring it to the surface of the lawn. You then sweep, rake, or vacuum this material away. Vertical mowers may be rented from local equipment rental companies, or you can find a professional in your area. For St. Augustine, zoysia and centipede lawns, be sure to set the blades wide enough. Consult a Scotts Lawn Consultant for details.

To dethatch effectively, adjust the depth and spacing of the vertical mower blades for your type of grass. Generally, the blades should completely penetrate the top half of the thatch layer. Move the vertical mower across the lawn in parallel rows; then mow again in a crosswise direction. For thatch thicker than 1 inch, mow a third time at a 45-degree angle with the previous cuts.

After removing thatch from your lawn, you can help the lawn recover by applying a complete fertilizer and watering it in to your lawn.

Unless you are removing dead grass prior to renovating, severe dethatching is probably unwise. If the lawn and its roots are well established, severe dethatching can weaken the turf and disturb the sod, allowing difficult grassy weeds such as coarse fescue to gain a foothold. It is thus best to set the blades of the vertical mower so that they disturb the soil surface as little as possible. It is better to do a mild dethatching frequently than to do a severe tearing or stripping that approaches the disruption of rotary tilling.

If you suspect that your thatch buildup was promoted by extremely acid sod, test the pH and add lime if necessary. The beneficial microorganisms that decompose thatch are most active at a slightly acid to neutral pH of 6.0 to 7.0.

## **Avoiding Thatch**

Here are some tips to avoid thatch build-up in your lawn:

- Minimize activities that compact soil
- Don't let the grass become too tall before mowing it
- Follow the recommended rates when applying fertilizer to your lawn
- Avoid frequent, shallow irrigation
- Don't let soil pH fall below 6.0