

Turf Management

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THATCH IS STILL AT HOME

For several hundred years thatch has been used successfully to offer shelter for man and animals. Since thatch can protect life from the elements such as rain or snow, heat or cold, it must be considered an insulator or sealant. Then is there any doubt that the accumulation of thatch on your home lawn may also protect the soil from these elements.

When used as human shelter, thatch is generally composed of reeds, rushes, or grasses (especially straw) that are combed or oriented so that the long blades lay nearly parallel for a very close fit. Many of our lawn maintenance operations tend to give the same effect to the tightly intermingled layer of partially decomposed or undecomposed leaves, stems and roots which accumulate beneath the actively growing grass. Mowing continuously in the same directional pattern, heavy irrigation and fertilization, use of vigorous species, failure to remove clippings, and delayed mowing are practices that most often cause a rapid build-up of the organic layer at the soil surface.

In effect, thatch decreases the aggressiveness of turfgrasses by restricting the movement of water, air and fertilizers into the soil. Irrigation water and light or rapid rainfall can be completely repelled by this organic layer. If thatch prevents water from reaching the soil surface, rooting depths will be shallow and a drought-susceptible condition will exist. Because of the variable thickness and density of the thatch, mowing becomes increasingly difficult and scalping usually occurs.

Also sheltered by the thatch are many turfgrass disease organisms and insects. Control is then made very difficult because of the high pest incidence and inability to get the pesticide to the organism causing the problem.

Considering that a thatch roof may last up to 60 years even though exposed to the elements, it is no wonder that extreme difficulty is encountered when trying to decrease the thatch thickness by normal maintenance practices and natural bacteria decomposition. Thatch is much easier to prevent than eradicate. Thatch seldom becomes a problem in less than four years after lawn establishment and with low or medium maintenance thatch may never accumulate.

To approach the thatch problem, decide which type of program is needed: (a) preventative control to avoid excessive build-up or (b) curative control for an existing thatch problem. Generally if the thatch layer is over 1/2 inch thick, the curative control is necessary.

From the preventative maintenance approach, moderate fertilization, periodic mechanical thatching and clipping removal should be considered. Also the soil pH should be maintained between 6.5 and 7.0 to help create an environment that is favorable for microorganisms which help decompose the organic material. For curative control, remove as much thatch as possible and as often as possible without permanently damaging the desirable grasses. It should be removed only during period of rapid growth, e.g. for bluegrass and fescues — spring or early fall; for bermudas or zoysias — late spring or summer. When thatching is not too severe, the desirable grasses will immediately cover over the scarred areas and prevent weed invasion.

Although hand-raking is often tried and may help prevent thatch formation, it seldom is vigorous enough to remove the 80 bushels or so of thatch that may exist on a lawn. Machines for mechanically removing thatch are becoming very popular with the suburban hardware and rental dealers. These machines basically consist of a reel having blades, knives, or tines which revolve in a plane that is vertical to the ground. They are generally powered by a gasoline engine and referred to as a vertical mower, dethatcher or gasoline rake. They vary in size, power, depth of penetration and width between blades or tines. Thus, the amount of thatch removed and the damage to desirable grasses are variable. It may be necessary to traverse the lawn several times in different directions with removal of the loose material after each pass. The tine or rake type machine will remove organic material and does least harm to existing turf but is not suited for a major thatch removal.



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