Mowing Tree Leaves Into Turf

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The autumn ritual of raking colorful tree leaves on beautiful and sunny Saturday's has long been a pleasant vision for many Michigan residents. For others it may not be such a pleasant vision, but rather a signal of a great deal of work. In either case, the traditional means to handle these leaves has been to rake them, and bag or curb them for pickup. Recent changes to state law prohibits yard waste from landfills which means that routine curbside leaf pickups are history, except for the few municipalities who operate compost centers. This situation leaves most Michigan residents with a need for new solutions to manage their leaves. While tree leaves are a welcome addition to backyard compost piles and gardens, that activity still requires raking and hauling. In the early 1990's, Dr. Rieke and Tom Nikolai began to investigate the effect of mowing tree leaves in to lawn turf. The advantages of this system are obvious. No raking required. Just mow and smile.

The first experiment examined the effect of tree leaves, nitrogen fertilizer, and fertilizer timing on turf quality. The treatments included mowing two rates of tree leaves into a Midnight Kentucky bluegrass lawn turf. The rates were 50 and 100 pounds of dry leaves per 100 square feet. This corresponds into around shoe top level or ankle deep leaf litter on the turf prior to mowing. A mulching mower was used and the leaves were mowed until they were chopped into small pieces and most of them had sifted into the turf canopy. In addition, nitrogen fertilizer (urea) treatments were added to at 2 lbs. or 4 lbs. of nitrogen per 1000 square feet. The plots were fertilized four times a year using two different application timing schedules. One was a spring adjusted schedule (April, June, July, September) and the other was a fall adjusted schedule (June, July, September, and November). The plots were rated for color, density, percent organic matter, and weed and disease infestation. Results from this study indicated that there were no detrimental effects from mowing leaves into the turf canopy. The plots receiving nitrogen fertilizer with or without leaves performed similar to each other. The plots that had no leaves or fertilizer were comparable those that received only leaves. Organic matter content did not change significantly during the first couple of years of this study, but will continue to be monitored in future years.

An additional tree leaf experiment was initiated to compare the effect of oak or maple leaves mowed into lawn turf because there has been concern about oak leaves having a detrimental effect on turfgrasses. The turf area used for this experiment was similar to the site described above. The treatments included oak or maple leaves mowed into the turf at the high rate (100 lbs./100 sq. feet) and 4 lbs of nitrogen fertilizer applied using the spring or fall schedule. At this time, no detrimental effect has been noted from either maple or oak leaves. Plots that have not received any nitrogen treatments have significantly lower quality than those that are fertilized.

Mowing tree leaves into the turf canopy can be a productive way to handle this material on turfed areas. Best results are attained when the leaves are dry and the mower blade is sharp. Simply raise the mower and chop the leaves into the turf canopy. After mowing, you should expect to see a litter of chopped leaves on the turf canopy, but this will disappear within a few weeks. The addition of fertilizer to these turfed areas along with the chopped leaves will provide higher overall quality. Rather than raking - just mow and smile.