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Two golf courses use Royer Shredders another way to make leaf composting profitable

To obtain a better humus as well as a lower cost humus than available locally, some golf courses have pursued leaf composting programs for years. Many more golf courses will probably follow suit. With leaf burning bans recently enacted in many areas, it usually costs less to compost leaves than to haul them to a landfill site.

This is because the costs of composting are minimal insofar as golf courses are involved. Mother Nature does most of the work. A course's grounds crew can usually handle the stacking, turning and mechanical processing required as a part of their regular schedule. And they can do it with equipment such as front-end loaders, Royer Shredders and Power Screens that are normally used for other turf maintenance applications.

The beauty of it is that leaves are converted to a highly-useful turf-building material. For every 30 cu. yds. of loose leaves collected, at least one cubic yard of rich, black leaf mold is produced.

As examples of how and why leaf composting can be profitable, the programs of Charles River Country Club and Salem Country Club are cited as typical.

At Charles River Country Club

Situated in Newton Centre, Mass., the Charles River Country Club boasts a 6,372 yard, par 72 golf course designed by Donald Ross. Built on a wooded farmland over 50 years ago, the course is heavily populated with trees—many of them oaks.

To convert a yearly abundance of fallen leaves from a nuisance to an asset, Course Superintendent Steve Kristof initiated a compost program in 1967.

Leaves are collected from fairways and greens from mid-September until snow flies. Five blowers are used for gathering the leaves into piles to facilitate truck pickup.

The leaves are stacked in windrows (approximately 6-ft. high x 8-ft. wide) at the compost site. Located about 300 yards from the course proper, the site is a flat 100-ft. x 100-ft. area with good drainage. The windrowing of leaves assures elevated temperatures (up to 160° F) within the stack to speed decomposition.

Windrowed leaves are turned twice a year to introduce air and moisture into the stack. At the end of three years, the leaves have decomposed into a rich, black leaf mold.

Charles River uses the leaf mold in preparing a highly-useful top dressing mixture. The mixture is produced from 60% coarse sand, 20% coarse soil and 20% leaf mold. The three are roughly pre-mixed on the ground and fed into a Royer 120 Shredder that has a PTO drive. The shredder not only mixes the leaf mold with the soil and sand but reduces it to a smaller particle size. After shredding, the mixture is processed in a Royer Power Screen to produce a uniformly-fine and homogeneous top dressing. A year's supply is mixed and processed within two or three days.

The top dressing is applied to greens, aprons, collars and greens' approach areas four to five times a year. Tees are top-dressed more frequently. About two cubic yards are used for each greens area and one cubic yard on each tee. Top dressing is also used on the club's one-acre sod farm as well as for patching turf.

Superintendent Kristof reports, "Top-dressing results in almost instant greening." His assistant Tommy McKniff adds, "We couldn't buy the same quality of top dressing."

(Continued on reverse)

Leaves are dumped at Charles River compost site by a local landscaper. These leaves add to compost without involving the grounds crew in collection operations.

In being specific, Kristof says the top dressing mix "controls disease . . . helps consume thatch . . . and definitely controls fungus." With leaf mold in the top dressing, a surface is provided that lets gravitational water percolate readily while an above-average amount of capillary water is retained.

The club has not had to pay for hauling leaves from the course, as other clubs in the area have been doing. The leaf mold produced has eliminated the purchasing of humus at approximately $5 per cubic yard.

At Salem Country Club

At about 10 miles north of Boston in Peabody, Mass., the Salem Country Club maintains a 6,700 yard course that was also designed by Donald Ross. Built over 50 years ago on a glacial tilt typical of New England, the course has an underlying subsoil of hard-pan clay and rock. It also has an above-average number of trees and wooded areas.

When fall arrives, there are plenty of leaves to be collected and Cliff Nunes, Superintendent at Salem, says, "After the work of collecting leaves, it just doesn't make sense to burn them." Since 1955, the club has been composting leaves to obtain top dressing and turf-building material.

Sweepers with 4-yd. hoppers and blowers are used to collect the leaves. They are windrowed at the compost site that is a leveled, 10,000-sq. ft. area about 250 yards from the course itself.

The 6-ft. x 8-ft. windrows of leaves are turned four times during the two-year composting period. One man using a bucket loader does the job each time in a couple of hours. There are no odor problems or rodent problems at any time.

Salem uses the leaf mold produced as a landscaping and construction material as well as an additive to top dressing. Top dressing is prepared from equal parts of sand, soil and leaf mold. A Royer 120 Shredder is used to blend the three materials together into a trash-free, aerated mixture for subsequent screening into a homogeneous product. To sterilize the top dressing, it is covered with black plastic during storage.

Top dressing is applied to greens and aprons four to five times a year and to tees eight to ten times a year. Cliff Nunes says that its use shows "an almost immediate color response." With leaf mold included, the top dressing "retains moisture better."

Leaf mold was used as the basic material in rebuilding the third green and the practice green at Salem. These two greens now require only five minutes of watering as opposed to all other greens that require up to 15 minutes.

Leaf mold has also been used to improve the stubborn eighth fairway as well as a landscaping material for shrubs and plantings around the clubhouse.

Currently, the club is purchasing $5,000 of topsoil per year. If leaf mold were not available, a substantially higher annual outlay would be required. It's readily understandable why Cliff Nunes says that he would like to obtain more leaves.

Tommy McKniff checks decomposition of 18-month windrow of leaves.

Three-year old windrow of leaves has become mound of rich, black humus.

Leaf mold is shredded and blended with soil and sand in a Royer 120 Shredder with PTO drive.

After shredding, top dressing is processed in a Royer Power Screen to produce fine, homogeneous mixture.

Mother Nature does the job as leaves compost on a 100-ft. x 100-ft. compost site at Salem.

Cliff Nunes, Supt. at Salem (at left), discusses advantages of leaf mold in top dressing mix applied to greens.