

# Green Waste Recycling Recommended by GCSAA

Golf course superintendents often face environmental questions regarding their management practices. One such question is the disposal of green wastes such as grass clippings, leaves, brush and other vegetative trimmings. Many states have passed laws banning clipping disposal. GCSAA encourages superintendents to recycle green wastes generated on golf courses.

Whenever possible, grass clippings are not collected. Clippings allowed to fall to the soil will return nutrients and organic matter. This practice is sometimes limited by the aesthetics and playability demanded on certain areas of the golf course, such as tees and greens. And under the right conditions, clipping return may encourage the spread of turf diseases at certain times of the season. For these reasons, returning clippings to the turf may be limited to roughs and fairways and the time of season. Mowing frequently to keep clippings short is a method of enhancing the appearance of the turf because it encourages rapid clipping degradation on the playing surface.

The dropping of leaves in the fall presents challenging management options for their removal. One option is to mulch the leaves with mowers directly on the turf. Similar to grass clippings, leaves provide nutrients and organic matter for the soil. Also similar to clipping return, mulching leaves is limited to fairways and roughs because of playability constraints. Many superintendents blow leaves off fine turf areas into roughs and then proceed with mulching. Mulching mowers can expedite the exercise of grinding the leaves into fine particles.

Brush can be shredded for use as landscape mulch. When processed through grinding and shredding equipment, woody brush and trimmings make an excellent landscape mulch for use around plantings and walkways. Mulch conserves soil moisture, prevents weeds and adds valuable organic matter to the soil.

Green wastes can be composted on the golf course. If clippings, leaves and brush cannot be directly added back to the course because of operational constraints, they can be composted in a compost pile. Such materials readily degrade to rich organic composts to use as soil amendments when a few key management techniques are used. These include grinding all coarse material, blending green fleshy material with woody materials, frequently turning the pile and providing adequate moisture. Detailed composting information is available from most state agriculture extension agents or universities.

Homeowners are encouraged to leave the clippings on their lawns, to use slow-release fertilizer and to mow every five to six days. Bagging grass clippings only contributes to the landfill problem and shouldn't be necessary if lawns are mowed regularly.

## Recycling on Golf Courses

Today's world has placed a renewed emphasis on both voluntary and mandatory recycling. New technology has given many former waste products a second chance. GCSAA supports the recycling effort and encourages its members to conserve and recycle.

Recycling is a process that leads to the reuse of wastes. This process consists of collecting, transporting, sorting/grading, storing and processing. Golf course wastes that can be recycled include used motor oil, tires, batteries, cardboard, pesticide rinsate, grass and tree clippings, solvents and, in some states, pesticide containers.

Recycling makes economic and environmental sense. By reducing waste disposal, landfill space can be preserved. Some experts estimate that grass clippings and yard wastes make up

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## Green Waste Recycling—

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Agency projects that half of the country's 6,000 landfills will reach capacity and close by the late-1990s. Therefore, some states are passing recycling mandates and legislation banning yard wastes from landfills.

Golf course superintendents in many states are faced with legislation aimed at specific types of wastes generated by golf courses. Many superintendents voluntarily recycle even though there are no mandatory state laws requiring participation in recycling programs. As landfill disposal costs begin to rise, recycling may become the most economical method of waste disposal.

Whenever possible, superintendents recycle grass clippings.

Grass clippings can be recycled by spreading them along the rough and around trees. Composting the clippings is also an option. Compost is an excellent growing medium that promotes fast germination and can reduce fertilizer use. Recycling grass clippings provides valuable nutrients that improve the soil.

Whenever possible, superintendents recycle pesticide rinsate.

An alternative to disposal of pesticide waste is recycling pesticide rinsate in the field. According to an EPA research workshop, pesticide rinsate recycling is "economical, technically uncomplicated, provides total containment, may be adapted to specific site situations and minimizes the amount of wastewater that must be treated and disposed of." Superintendents who utilize this practice are encouraged to build a catchment and storage system for pesticide rinsate intended for reuse. This facility should be in compliance with state and local regulations.

### Used Tires and Motor Oil Can Be Recycled

Used tires and motor oil from golf course maintenance equipment and golf cars can also be recycled. Tire and oil distributors and local recycling companies should have information regarding recognized tire and motor oil recycling centers.

### Trends in State Waste Reduction and Recycling Legislation in Effect In Some States

Banning certain materials -- such as lead-acid batteries, oil, tires and yard wastes -- from landfills.

Assessing advance disposal fees on the purchase of hard-to-dispose-of products.

Encouraging or requiring composting of yard waste.

Making the state a market for recycled goods by requiring or encouraging state agencies to buy products made from recycled materials, to use compost material whenever possible and to recycle their own wastepaper.

Offering tax incentives to companies or organizations that buy recycling equipment.

Providing funds for private research and development and low-interest loans to recycling companies.

Requiring recycling instruction in schools.

Financing processing centers for recyclables.

You can work with your superintendent to start a community recycling program.

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