

An 'environmentally sensitive' approach to golf courses

...And landscapers, too, are looking at some of these courses to see what aspects they might sell to clients.

■ The 1990s have been labeled the "Decade of the Environment." This prompts many landscape managers—and golf course superintendents in particular—to evaluate (or re-evaluate) their impact on the environment.

There is a movement afoot (spurred by the golfing industry, its clientele and "environmentalists") for new golf courses to be environmentally sensitive, and for existing golf courses to embrace some of the same concepts.

John's Island West Golf Course in Vero Beach, Fla. was designed by Tom Fazio to be such a course. Dr. John Fitzpatrick, executive director of the Archbold Biological Station near Lake Placid, Fla., is an ardent fan of John's Island West.

"The property is one of the rarest habitats in North America," he told *The Florida Green* magazine. "Every square meter is precious to wildlife. There is a fairly large number of endangered species, and it is now a permanent habitat preserve that also provides recreation and beauty."

Loads of wildlife—Wolf Run Golf Club in Zionsville, Ind. is also a haven for various forms of wildlife, particularly birds.

Wolf Run features bluebird houses and duck-feeding programs. Its owner, Dr. Jack Leer, will not allow maintenance crews to remove selected dead trees because they provide nesting areas for certain indigenous species of owls.

Another of Wolf Run's environmentally sensitive plans is to incorporate as much tall unmowed grass as possible. These grasses serve as nesting places for wildlife.

"We've got a lot of unmowed fine-leaf fescue blend that provides 30 to 40 acres of prairie-type long grasses," says superintendent Joe Kosoglov. "The place is just loaded with birds, squirrels and snakes—even though I'm not thrilled with the snakes."

The course was grassed in the fall of 1988. "We actually do have sections of the property that were untouched during development," Kosoglov notes.

And Wolf Run's unique "look" is gaining some attention from local landscapers who want to pick up tips on how to integrate such programs into residential and

The Pali Golf Course in Hawaii is decorated with native ground covers.

A place for the birds



Nancy Sadlon: Don't immediately take down dead trees.

■ "Golf courses are ideally suited for giving sanctuary to birds," says Nancy Sadlon, environmental specialist for the United States Golf Association. "They are often lacking in only one or two small details which keep them from being the most attractive areas (for bird habitation) in the community."

She suggests that golf courses provide birds with the basic elements: food, water, cover and space for nesting. To achieve this, she recommends 14 golf management projects:

1) Start with an inventory of the course to find out what's living in it and where.

2) Optimize the "edge habitat,"

where one type of habitat meets another. The greater amount of edge you have, the greater the diversity in species.

3) Maximize the vegetation levels that exist. From groundcovers, to vines, to understory trees, to forest. Don't take out understory areas unless it's absolutely necessary.

4) Compromise some of the turf areas for other groundcover, native grass or wildflowers. "This is very important to ground-nesting birds and also provides a food source," Sadlon says.

5) Resist temptation to widen the fairways.

6) Provide slope changes and dust paths for ground-feeding birds.

7) Recognize, preserve or create food patches. These natural meadow areas are very high with plant materials that are important food sources.

8) Provide bird-attracting flowers into your garden areas to attract hummingbirds and butterflies.

9) Construct and/or restore native dunes or native grass areas.

10) Provide brush piles. Don't mulch them and make them disappear right away. "They're real important in cooler areas," Sadlon adds.

11) Provide windbreaks. Much larger windbreaks are needed in the West.

12) Plant bird-attracting fruit-bearing trees and shrubs to provide important berries.

13) Provide water areas, and leave some edge vegetation; for food, cover and pollution filtration. Preserve wetlands and streams.

14) Preserve natural cavity nesting areas—tree snags—or provide artificial nest boxes. "Don't run out and immediately take down the dead tree," she concludes.

Photos courtesy of USGA



An occasional birdhouse provides birds with a man-made shelter.

commercial landscapes.

"I've had a pretty steady stream of landscapers check out the long unmowed fescues," Kosoglov admits. "I've got a feeling they'll be using them on slopes and unmowed areas. I've worked with some of the landscapers, and we've developed pretty good relationships."

The Audubon program—"The New York State Audubon Society has a program to register properties," says Kosoglov. "One of the types of properties they want to get registered is golf courses."

"They provide information on how to improve the properties for birds. We've enacted a few (of the society's programs), but not as many as we'd like."

The Audubon Cooperative Sanctuary System works like this, according to the society's staff ecologist Jean Mackay: for a \$100 fee, a participating golf course is asked to fill out a "wildlife inventory." The Audubon Society then sends the course a written report with suggestions about how it can take specific steps to attract and preserve wildlife.

"Some courses are already doing wonderful things," says Mackay. "But they still sign up and we can then tell them how to enhance their existing programs."



Kosoglov: unmowed fine-leaf fescues provide prairie grass look on slopes.

The sanctuary registration system began in 1990. More than 400 golf courses are already participating.

For more information, write or phone the Audubon Society of New York State, Inc. at: Hollyhock Hollow Sanctuary, Route 2, Box 131, Selkirk, NY 12158; (518)

767-9051.

Long grasses—David Stone at The Honors Course in Ooltewah, Tenn. uses broomsedge, weeping lovegrass, lespedezia and tall fescue between greens, tees and landing areas. Native shrubs and tall grasses border the roughs, streams and pond shorelines for bird nesting.

"Our course looks different from one season to the next, and that adds interest," Stone admits.

An avid naturalist, The Honors Course's superintendent developed several programs to help identify, monitor and encourage a variety of wildlife species using the course's environment. Not surprisingly, The Honors Course was recognized in 1991 by the USGA for its conservation and preservation activities, the first course so honored.

Ugly weeds in the tall grass are mechanically removed by chopping. Stone also uses a Bushhog on different parts of the course at different times of the year.

"Brush piles are great places for rabbits to hide," Stone says. "But there is a fire hazard."

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Golf course from page 12

Birds also play an important role in the course's "environmentally sensitive" approach. Stone and his crew raised 11 birds in three years; eight still survive.

The wetland question—Another environmental question mark that could face superintendents in the future is preserving freshwater wetlands. According to a report by the GCSAA, "protection of wetlands and other valuable aquatic habitat has become an important part of golf course management."



Stone: seasonal changes at the Honors Course add interest, protect native habitat.

The GCSAA's position statement says: "Wetlands act as both a sponge and a filter to provide a built-in water quality maintenance system. Golf courses also benefit wetlands...by providing large recharge areas that help supply wetlands with much-needed water...and provide secondary filtration to help purify water entering wetland areas."

Says GCSAA government relations manager Don Bretthauer: "In some cases, golf courses are creating wetlands. It's a give-and-take type thing: take away wetlands, give some back. It's then the superintendent's responsibility to preserve the wetland."

Embracing the virtues—Golf course superintendents and landscape/lawn care companies alike argue that they, like their detractors, are also "environmentalists."

Golf course architect Pete Dye may have pointed the way for his colleagues when he used 15 miles of underground pipe in the design of the Ocean Course at Kiawah Island, S.C. The drain system picks up 300,000 gallons of freshwater every day, Dye says—"50 percent of the water that we need to irrigate the golf course."

As the courses and landscapes of the '90s are designed, more and more are embracing the virtues of being "environmentally sensitive."

—Jerry Roche

Chippers and shredders:

keys to environmental maintenance

■ The rush by local and state governments to eliminate landscape debris from our landfills makes chippers/shredders an increasingly valuable landscape tool.

Chippers and shredders—from compact homeowner to commercially rugged pull-behind models—allow landscapers and golf course superintendents to re-cycle landscape debris, often on-site. They also offer another add-on service sales opportunity.

Chippers and shredders can provide various grades of re-usable mulch. They're perfect for disposing of tree prunings, broken branches and other landscape debris. While chippers are best for brush, leaves, twigs and stalks.

"Chippers/shredders are like garbage disposals for the yard," says Ray Klubnik of The Tractor Place, North Royalton, Ohio. "In choosing what type of equipment you want, it's all application. You have to ask yourself these questions:

- "How are you going to use it?"
- "How big are the yards?"
- "Are you pruning?"

Three considerations you should take into account before purchasing are capacity, chipping knives and engine size.

Fixed hammers are used in some machines, flail knives in others. Limb capacity can range from 3 bushels for smaller consumer-type models to 28 bushels for larger machines. Engines for smaller units generally begin at 3 hp and progress to 8 hp—then there are industrial size machines with more than 100 hp.

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The Sterling



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Promark's brush chipper



Vermeer's 620 BC



Troy-Bilt Chipper Vac



PeCo's 20/30 model



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CHIPPERS/SHREDDERS FOR THE GREEN INDUSTRY

Manufacturer	Model	Features	Manufacturer	Model	Features	
Ameriquip Circle No. 300	250 Chip N Mulch	*2 flywheel knives, adjustable bedknife, 48 flail knives *3" dia. capacity *16 hp Briggs Vanguard engine	Morbark	(cont.)	*4 chipper knives *Patented E-Z principle *several gas, diesel options	
	Model 240	*1-1/2" shaft *16 hp OHV engine		Olathe Circle No. 308	Model 801	*24" hammermill for leaves, brush chipper with 5" dia. capacity *PTO powered *60"-wide hopper *20 reversible steel hammers *30" diameter disc
Bandit Circle No. 301	Go Bandit	*360-degree swivel discharge *22" dia. chipper cutting wheel *chipper capacity=6" material *Wisconsin 30 hp gas or Perkins 23.5 hp diesel engine	PeCo Circle No. 309	12/24	*360-degree rotating base *24" flywheel *12 hp Kohler engine *two reversible 8" knives *5" intermittent cutting capacity	
	Mighty Bandit (2 models)	*disc-style hydraulic feed chippers *6" dia. capacity *22"/26" chipper cutting wheels 10 engine options (20-30 hp) PTO drive available		20/30	*30" flywheel *20 hp Kohler engine *easily maneuvered	
	Brush Bandit (3 models)	*9" and 12" dia. capacities *chipper openings to 19"x12" *engines start at 37 hp *PTO drive available		Promark Circle No. 310	Model 210	*6" dia. intermittent capacity *24"x24" feed hopper *18 hp Kohler engines *2-10" reversible knives
	Drum Bandit (2 models)	*12" and 16" dia. capacities *engines 61-119 hp *12"x12" discharge chute		Model 310	*360-degree rotating chipper *limb capacity: 5" dia. *28"x24" feed hopper *10" reversible knives *23 hp Kohler engine	
BCS America Circle No. 302	BIO 80, 100	*5, 8 hp Briggs & Stratton engines *3" limb, 1" brush capacity *27 or 28 reversible hammers	Model 395	*2-10" chipper steel knives *40 hp Yanmar diesel engine *9-1/2" dia. capacity feed opening *360-degree discharge chute		
Crary Circle No. 303	Bear Cat (4 models)	*2 Chip N Vacs with 5 hp Briggs or 8 hp Tecumseh engine *2 Compacts with 1" dia. capacity, 2 hp Briggs engine or electric motor *Mid & Full sizes with 3" dia. capacity, 16 flail knives, 3-8 hp Briggs or Honda engines *Commercial with 30"x30" loading hopper, 72 reversible shredding knives, up to 5" dia. capacity, 14 hp Kohler engine or PTO drive	Model CT-2	*inc. hydraulic dump trailer *23 hp Kohler engine *28"x24" feed hopper *cutting capacity: 6" intermittent *feed hopper, discharge chute both rotate 360 degrees		
			Salsco Circle No. 311	Commercial	*24" dia. impeller, 6 chipper blades, 64 flail blades *14"x17" infeed opening *odd shapes to 5" dia. capacity	
				Colt, Chipper Stallion	*3-1/2" dia. capacity *20- or 40-lb. flywheel *12 std. shredder chisels *4 engine options, 5-9 hp	
			Snapper Circle No. 312	3 "SG" models	*consumer-styled *12 or 24 reversible flail hammers *hoppers to 18"x15-1/2" *chipping capacity to 3" dia.	
Hodges Circle No. 304	4 models	*3.5, 5, 8 or 16 hp *3 larger models up to 3-1/2" dia. capacity	Sterling Circle No. 313	3 models	*5, 7.5, 8 hp *up to 3" dia. irregular limbs	
Ingersoll Circle No. 305	HS24 (2 models)	*HS24W is tow-behind *HS24H has 3-pt. hitch *Hydraulic PTO power *24 steel flail knives *hopper opening 18"x17" *capacity: logs to 3" dia., stalks to 1" dia.	Troy-Bilt Circle No. 314	Tomahawk (4 models)	*consumer-styled *3-8 hp 4-16 steel flail blades *up to 3" dia. limbs, 1" brush capacity *hopper size to 19"x25"	
Little Wonder Circle No. 306	ReVac	*3-1/2" dia. capacity *2 chipping knives, 9 hammer knives, 3 feeder knives *16 hp OHV engine *vacuuming function	Chipper/Vac	*walk-behind consumer-styled (2 models) clean-up machine *4 replaceable blades *4 or 5 hp		
MacKissic Circle No. 307	SC182 Brute	*4-1/2" dia. capacity for logs, 1-1/2" dia. for prunings, branches *12 or 16 hp Kohler engine *48 flail hammers				
Morbark Circle No. 317	E-Z Chipper Model 20/36	12' dia. chipping capacity *infeed opening 23"x43"				

turn to page 20 for more chippers/shredders



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Morbark's E-Z chipper 20/36



The Little Wonder ReVac



WW Grinder's Renegade



MacKissic's SC182 Brute

Chippers from page 15

Small shredder/shippers will chip branches up to 1-1/2 inches in diameter. A 4 to 8 hp machine will chip up to 3-inch diameter materials. Larger machines handle up to 6-inch logs.

According to Klubnik, you can pay as little as \$548 for the smaller chipper/shredders—or into the thousands of dollars for the heavy duty models. But however much you pay, “you should be able to pay for the machine in the first couple months of use,” Klubnik observes.

No matter what size and style you choose to purchase, make sure your employees are trained in safe use. Most manufacturers offer safety training videos and literature.

—Jerry Roche



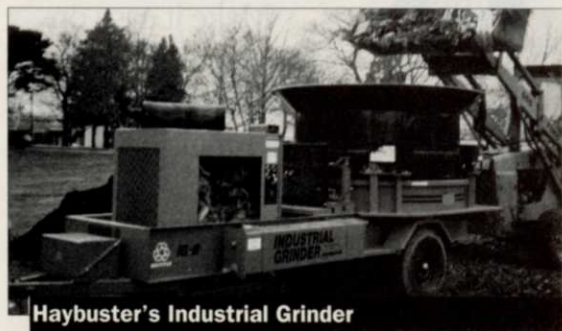
Hodges, with four hp options



The Mighty Bandit II



The 818TG from Olathe



Haybuster's Industrial Grinder

CHIPPER/SHREDDERS FOR THE GREEN INDUSTRY

Manufacturer	Model	Features
Vermeer Circle No. 315	Models 620, 9354	*6" or 9" dia. capacity *24" or 30" cutting wheel *2 steel knives *infeed opening to 10" x10" *19.25 or 35 hp engine
	Models 1220, 1250	*270-degree swing discharge chute *76 or 99 hp Ford engines *4 steel knives *12"x12" infeed opening *37" or 42" cutting wheel
	Model 1600A	*6" dia. capacity *drum-style chipper *80 or 99 hp engine *12" dia. x 16" wide rotor
	Chippewa	*consumer-styled *3.5 or 5 hp engine *limbs to 3" dia. capacity
WW Grinder Circle No. 316	Renegade	*30"x33" hopper *hardwood limbs to 3" dia. *5 or 8 hp engine
	Super Apache	*PTO-driven *24 steel hammers *3" dia. capacity *two-bladed chipper

Source: March, 1992 LM mail/phone survey