

There are certain players baseball managers dream about. Such players hit for power *and* average. They run like the wind, field everything hit their way and have arms that make howitzers envious. They're called five-tool players, and they can make a manager's job easy.

Golf course architects dream, too. When they remodel golf courses, they dream of all the right tools at their disposal so they can star for course owners. But when making decisions about what they will bring, they face a conundrum: They need to fill their boxes with tools powerful enough to do a job without destroying the non-renovated turf on the course. That's not as easy as you think.

Ideally, owners would like to hire a "five-tool" architect, who has already mastered the art of remodeling so they don't have to make such careful calculations. But if they insist on doing the job themselves, experts say their toolbox must contain the following all-star lineup of equipment to do the job right.

Most of the people to whom we talked began and ended the conversation extolling the virtues of the mechanized bunker rake. In fact, it is so important that architects say it's almost impossible to grade a green properly without one. Most models look like small tractors that come with myriad attachments, including bulldozer blades, drag mats and renovation cultivators. Steve Burns, principal of Burns Golf Design in Amelia Island, Fla., says the rake is the perfect tool to do a final grading before seed is planted.

"I can't think of a tool more essential to doing an effective remodeling," Burns says. "This is one tool that we expect to be at all our sites."

Don't let its name fool you — the bunker rake has applications far beyond leveling sandy hazards. Tom Ristau, vice president of Pennick Armour Golf in Bryn Athyn, Pa., says his company uses the rake to smooth all areas of the course, particularly the final float (leveling) of the greens.

"Without a rake, you can't properly level the greens or the tees," Ristau says. "We've had people tell us that our tees are smooth as silk, and it's a result of using this tool."

Sometimes, you won't be able to drive your equipment up to the ground where you're working. That's why a loader with a swing-out arm to carry materials to and from the work site also tops the list of important tools. J.J. Hickey, project manager for Kansas City, Kan.-based Heartland Golf (which handles many construction projects for Craig Schreiner Golf Architects), says you need a loader to avoid destroying the detail work around bunker edges and green collars.

"Most renovations won't allow you to bring big pieces of equipment to the exact place where you're working," Hickey says. "You have to balance

Continued on page 42

Only Human

As important as equipment is to remodeling jobs, the human element is equally vital, according to Bob Lohmann, president of Lohmann Design Group in Marengo, Ill.

"A tool is only as good as its operator," Lohmann says. "If you don't train the employees to do the job right, no amount of fancy equipment will help you do the job."

Lohmann says anyone involved in a remodeling project, including the superintendent, should find out everything they can about a course. He says they should collect the following items before altering a design element:

- old aerial photographs of the course;
 - records of green committee meetings from past years;
 - drawings of what currently exist so you can compare the two; and
 - an environmental investigation (to avoid running afoul of government regulations or local environmental groups).
- "You need to plan before you plan," Lohmann says. "Otherwise, the project could run into problems down the road."

As important as the designer is to the job, however, the choice of a crew can be equally important. Bill Kubly, president of Lincoln, Neb.-based Landscapes Unlimited, says the most important element to any remodeling job is the people assigned to crews. They are critical to keeping the client satisfied, he says.

"It takes a special person to head up an effective team, and you have to know your people well enough to understand who would fit a certain job and who wouldn't," he says. "You want to make sure you produce the best team possible for each individual situation. Each job takes on its own personality, and it's your job as the designer to assign the right people to fit whatever personality the job takes on."

—Frank H. Andorka Jr.



Tool Time

“You want the course to look as if there had never been any renovation done.”

—Bill Kubly



Continued from page 41
your earth-moving needs against the damage you're doing with those bigger pieces.”

Avoiding such damage is what Bob Lohmann emphasizes most when he's working on a job. Lohmann, president of Lohmann Design Group in Marengo, Ill., says designers should never forget that remodeling projects should avoid creating extra maintenance headaches for the superintendent. To do that, architects and builders must think of the remodeling from the superintendent's point of view.

“You have to be sensitive to what the superintendent is doing, particularly with a remodel,” Lohmann says. “You don't want to tear up a lot of turf just to get your remodeling done.”

No matter what equipment a builder brings to a site, Lohmann insists it should have balloon tires rather than traditional treaded tires, which do extensive damage. Balloon tires distribute weight more evenly and

put less pressure on the ground, he says. Lohmann adds that plywood is an often overlooked tool essential to remodeling.

“If you can't find a piece of equipment with balloon tires — and some pieces that you will need simply aren't equipped with them — plywood paths are your next best option,” Lohmann says. “[Plywood paths] allow you to drive to the parts of the course you're renovating without killing other turf. Lohmann adds that plywood also gives an architect a method for clearing away excess dirt.

In addition to riding on balloon tires, equipment should also be powered by automatic transmissions whenever possible, Ristau says. Inexperienced operators working with a stick shift can destroy turf as easily as heavy construction equipment can, he says.

No matter how careful architects and construction crews are, however, there is the inevitable challenge of piecing together the old turf with the newly renovated areas. Bill Kubly,

Continued on page 44

OTTERBINE®.... Your Water Quality Management Specialists



Surface Aerators

- Reduce the problem of *algae*, aquatic weeds and odor.
- Introduce O₂ into the pond.
- Available in a variety of spray patterns and sizes.



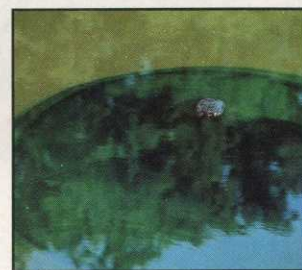
Sub-Surface Aerators

- Introduce O₂ into the pond bottom via Sub-Surface or Diffused Air.
- Perfect for shallow ponds.
- No visible spray pattern.



Bunker Pumper

- Removing water from bunkers, excavation sites or swimming pools.
- 280 GPM pumping rate.
- Floating, self priming portable - only 85 lbs!



Ottershield Lake Dye

- Transforms muddy water into *healthy blue water*.
- No stained clothes or hands - you never touch Ottershield.
- Neat, clean, packets.



Replace your old Otterbine with a new one and receive a discount of up to \$600.00!! Call 1-800-AER8TER for details.

OTTERBINE, INC. • 1-800-AER8TER (237-8837) • (610) 965-6018 • FAX: (610) 965-6050

Tool Time

Continued from page 42

president of Lincoln, Neb.-based Landscapes Unlimited, says a sharp sod cutter is critical to avoid creating seams in an otherwise flawless course.

"You want the course to look as if there had never been any renovation done," Kubly says. "You're looking for perfect edges, and a good sod cutter will

help you create them so everything fits together as if there had never been any work done."

Finally, when all the equipment has been returned to the maintenance facility and the renovation is over except for the cleanup, there's nothing more essential than an aerifier to control the

Continued on page 46



#1 Selling Pesticide Storage Building



**Superintendents:
Don't let unexpected
EPA fines ruin your game.
Protect yourself, your
staff, and your golfers!**

- ◆ Custom Built Sizes: 8' x 6' up to 14' x 54'
- ◆ Non Fire Rated/2 Hour Fire Rated/4 Hour Fire Rated
- ◆ FM Approved
- ◆ Mechanical Ventilation
- ◆ Steel Floor Grating
- ◆ Lighting Package
- ◆ *Plus* Other Options



**Call today and ask for your
Superintendent Discount!**
Limited Time Offer.



U.S. CHEMICAL
storage LLC

1 800 233 1480
www.uschemicalstorage.com

Water Woes

When architects remodel a course, they discuss turf contours, green location and what grasses to use. But according to Pat Franklin, they often forget to discuss the irrigation system.

Franklin, superintendent at TPC at Deere Run in Moline, Ill., has overseen three course construction projects in his career, and he doesn't understand the inattention paid to irrigation systems.

"What always amazes me is how many construction companies forget to find out where the irrigation system is before they remodel," Franklin says. "It falls prey to the 'out of sight, out of mind' philosophy. That just doesn't make any sense."

Bill Kubly, president of Lincoln, Neb.-based Landscapes Unlimited, agrees. He believes irrigation is sometimes left out of the remodeling equation.

"It's silly to rebuild tees and greens without considering the effect that will have on the irrigation system," Kubly says. "But it happens all the time."

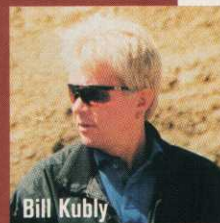
On the other hand, the issue always isn't inattention. Sometimes it's pricing, says Kubly, who has noticed a trend in irrigation toward high-tech gadgetry the last eight to 10 years. That has driven up prices, which leaves middle- and lower-budget courses out of the equation.

"Some of the newer systems have gotten too sophisticated for the small-budget courses," Kubly says. "[The irrigation companies] are pricing the average golf courses out of the picture, and they deserve adequate water systems as much as the high-end daily fee courses do."

Kubly isn't suggesting that development of radio-controlled systems isn't good for the industry, but he does urge the companies not to forget that the majority of courses can't spend \$1 million on an irrigation system.

"Companies are going to have to go back to basics and design systems that are affordable to everyone," Kubly says. "They can't focus solely on the high-end courses because they will shrink their market if they do that, and that would be a bad move."

- F. A.

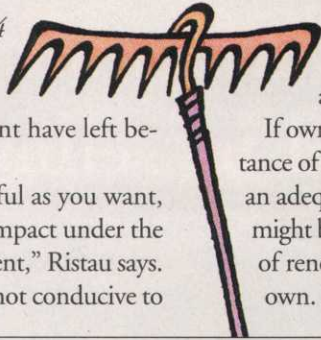


Tool Time

Continued from page 44

compaction problems that the bulldozers and construction equipment have left behind, Ristau says.

"You can be as careful as you want, but the ground will compact under the pressure of the equipment," Ristau says. "Those conditions are not conducive to



growing healthy turf, so you're going to have to aerify the renovated areas."

If owners understand the importance of these five tools and provide an adequate budget for labor, they might be able to fulfill their dreams of renovating the course on their own. ■

Finding a Happy Medium

According to architects and golf course builders, it's easy to find construction equipment for large jobs and small jobs. But it's difficult to find light construction equipment that adequately addresses the needs of medium-sized jobs.

"I'd like to see more equipment designed that would maximize my flexibility when I'm on site," says Tom Ristau, vice president of Pennick Armour Golf in Bryn Athyn, Pa. "There are times when my big pieces of equipment are too big, but a smaller piece of equipment is too small. There's not a lot of in-between equipment available."

Ristau says the one piece of equipment he'd like to see is a medium-sized bulldozer with a 40-horsepower engine and an automatic transmission. "This is one piece of equipment that seems to be missing from most jobs," he says.

Steve Burns, principal of Burns Golf Design in Amelia Island, Fla., says that more medium-sized equipment would prevent problems such as the one he saw on one job where the architect wanted a gently sloping rise to the green.

Burns says the developer was so concerned about tearing up the turf that he didn't bring the remodeling equipment close enough to the site. As a result, the slope was anything but gradual.

"You want a mound that tapers off without any sharp edges," Burns says. "This job had greens with these sharp angles. It looked awful, and it played worse."

The argument for medium-sized equipment goes beyond convenience for the architect, Ristau says. It lowers labor costs because it takes construction crews less time to do a job than it would with smaller equipment. It would also minimize turf damage, so there would be less cleanup work after a remodeling.

"There are times when you can't take a 25-ton truck on to a golf course, but if you take anything smaller, you'd be hauling all day," Ristau says. "There needs to be some innovations that will meet us somewhere in the middle. That will help the industry immensely."

-F.A.

**NOW
AVAILABLE**

F I V E
GREAT REASONS WHY
YOU SHOULD CONSIDER
BULL'S EYE Bermuda
FOR YOUR NEXT
PROJECT.

- Virtually No Seedheads
- Good Shade Tolerance
- Deep Blue-Green Color
- Medium-Wide Blade For Texture Contrast
- Can Be Mowed With Rotary or Reel



BULL'S-EYE
Bermuda

WEST COAST
TURF

Life is Short. Sod It!

www.westcoastturf.com 760/360-5464 800/447-1840 FAX: 760/360-5616