Ott is thankful that the city has never abandoned its downtown parks.

This year Sandusky budgeted just over \$300,000 for its greenhouse and parks. "The city's been very fair with our budget. I've been real happy with the way they've treated us. Our division's never been cut," says Ott.

Parks include five acres downtown and smaller sites in other areas of the city, including flowers and beds at city offices and fire stations. Most of the budget goes for salaries. It's a bargain considering the dedication of his crew, believes Ott. "I keep getting better and better people," he says.

Realizing the budgets are always tight, Ott's crew saves money where it can.

"We only spent about \$700 on plants and seeds this season," says Ott. "We propagate almost all plants from seeds that we harvest ourselves or from cuttings. In fact, we probably couldn't even buy the amount of alternanthera (Joseph's coat) that we use."

By mid-August, co-workers begin taking cuttings of the dark-leafed alternanthera for 1995 beds. They usually prepare 400 flats—60,000 plants—used mostly as lettering or background in Washington Park's six floral mounds. Lighter green santolina forms the borders of these displays which proclaim significant events in the community—for instance, the 75th Anniversary of the American Legion. Or the 150th year of Emmanual United Church.

"Some of the mounds are reserved up to the year 2018," says Ott, admitting that they take lots of maintenance. To climb onto the mounds without damaging the plants, workers use wooden "chicken ladders."

"We trim them every 1½ or 2 weeks. It takes all of us two days. Three of us take



Rick Choquette, left, and Tom Speir take obvious pride in Sandusky's fanciful mounds.

off with gasoline hedge shears. We've really gotten good with those shears. They can trim just about anything. And what we can't get with the gasoline shears, we get with manual shears."

In fact, if it weren't for power shears and string trimmers, Ott says he and his crew could never keep up with the maintenance.

"I'm actually kind of a plant rat. I hate to throw a plant out. Sometimes my coworkers get upset with me because we have to water, fertilize and spray everything. And it gets real tight in the greenhouse every winter." Warm-weather specimens like the Phoenix, kentia and sago palms are gathered just before the first heavy frost in early November, trimmed (roots particularly), potted, then packed into the city's 20-year-old, 6,500-sq.-ft, greenhouse.

It gets very crowded in the city greenhouse through the winter, but the work goes on for the next season.

"The park system here started about 150 years ago and it's been growing ever since," says Ott. "I'm just trying to add something to it."

-Ron Hall

Bringing golfers back to your course

If you're interested in making sure that golfers who visit your course return some day soon, maintenance and design tricks can help guarantee repeat play. According to Laurence A. Hirsh, president of Golf Property Analysts, Harrisburg, Pa., here are some things to look for:

1) Course conditioning: are players inclined to return because greens are in great shape? Are fairways wide enough, or too wide? Has the course's appearance been enhanced with mulched beds, ornaMaintaining good conditions and integrity of design will keep those greens fees rolling in.

mental grasses and flowers? Do amenities such as tee signs, ball washers, benches and hole liners add to the course's overall image? 2) Pace of play: A brisk pace increases the enjoyment of most players. Large tees quicken the game, while providing adequate areas for all levels of players. Hazards should not penalize novice and average golfers too severely or constantly create bottlenecks. Rangers and yard markers also help keep the game moving.

3) Maintenance: Avoid difficult maintenance areas or outdated methods. Examine manual versus automatic irrigation, hand-mowed versus triplexed greens,



A golf hole like this one encourages repeat play. It makes use of multiple tees and varied landing areas to test skill and strategy, plus bunkers, trees and a pond for a beautiful playing environment.

rough maintenance and bunker appearance and consistency to see that you are providing as high quality as the budget will allow.

The key to promoting repeat play is developing a course that provides a challenge, maintains a player's interest and remains in peak condition, adds Tom Clark, former president of the American Society of Golf Course Architects.

"The courses that are able to meet these criteria are usually quite successful in attracting new golfers, developing longterm loyalty and generating strong revenues," Clark says. "They also offer an outstanding drawing card for the community or surrounding development."

When designing a course that encourages repeat play, architects use multiple tees and design greens large enough to accommodate several pin settings.

"Using multiple tees and pin settings creates variety," says Clark. "The key is to make sure the golfer is not playing the same course every time."

A course in top condition promotes repeat play because golfers can depend on the course to be more playable more often than a course in less-than-peak condition.

"If golfers know a course is in good condition and will generally be open for play, they'll plan to return," says Clark. "For example, a course with good drainage will be open for play more often than a course that drains poorly. This is critical to the many dedicated golfers who want to tee off as soon as the rain stops.

"The architect, superintendent and golfer all share a role in keeping a course in top condition," says Clark.

Controlling moss, algae in golf course turfgrass

by Gilbert Landry Jr., Ph.D., University of Georgia

Moss and algae are found in turf areas because conditions are not good for growing dense healthy turf.

Mosses are small plants which have a mass of fine stems. *Algae* are thread-like green plants which form a thin dense green scum over the soil surface. Neither moss nor algae are thought to be parasitic to turfgrasses. The green scum formed by algae is relatively impermeable and once it

dries out, forms a tough black crust. Factors favoring the growth of algae:

• wet or humid full sun locations:

• compacted waterlogged fertile soils; and

• thin, weak turf.

Factors favoring the growth of moss:wet or humid shady conditions;

• acidic, infertile, poorly drained, waterlogged soils;

• excessive thatch; and

• thin, weak turf.

The only permanent control of moss and algae is to correct the conditions which reduce turf growth. The following cultural practices can accomplish this:

1) Maintain good soil fertility. Have the soil tested to determine proper lime and fertilizer needs.

2) Improve drainiage. Soils which stay moist because of poor drainage should be contoured so that water will drain off the area. In some cases, tile drainage may be necessary to correct wet conditions.

3) Increase light penetration and air circulation. Trimming back low branched trees may allow for better light penetration and movement. In some cases, removing some of the least desirable trees may be justified. Areas surrounded by buildings and vegetation with limbs close to the ground require considerable effort to provide adequate air circulation and light penetration. Using a shade-tolerant grass such as St. Augustinegrass, zoysiagrass or tall fescue will help. However, if direct sunlight does not reach the ground during the day, a groundcover may be more appropriate.

4) Cultivate compacted soils. Aerification with a machine the removes plugs of soil will help reduce compaction. Drainage in fine-textured soils can be improved by cultivation and adding large amounts of organic matter and sand.

5) Avoid excessive irrigation. Keeping the surface moist will only increase problems.

Moss and algae problems will recur unless growing conditions are improved, even though you might elect to use the following chemicals:

• Copper sulfate: 2 to 3 oz./1,000 sq. ft.

• Hydrated lime: 2 to 3 lbs./1,000 sq. ft.

• Ferrous sulfate (moss): 4 to 7 oz./1,000 sq. ft.

• Ferrous ammonium sulfate (moss): 10 oz./1,000 sq. ft.

• Non-selective herbicide: apply only to spots covered by moss, according to label directions, and reseed or resod the damaged areas.

Once controlled, sodding is the recommended means of establishing turf under heavily-shaded conditions.

-Dr. Gilbert Landry Jr. is in the extension agronomy department at the University of Georgia. He is a former president of the Sports Turf Managers Association.