

# New drains, modified bunkers improve 'wetlands' course

by LESLEE JAQUETTE

**S**ometimes, rebuilding is the only way to solve weather-related problems—such as slow drainage and interrupted mowing schedules. Certainly, the weather keeps Jerry Mathews and assistant Jim Smith busy as they

dodge the rain drops at Port Ludlow Golf Course.

The geography and cool, moist climate of the upper Northwest can make turf soggy in fall and winter. Autumn rain, often for days at a time, soaks the low-lying ground at Port Ludlow. More than 20 acres of it is wetlands.

Three years ago, 60 slow-draining bunkers at Port Ludlow were successfully rebuilt as a way to save on maintenance and improve playability and aesthetics.

"They were originally filled with finer, white sand, and a lot [of the poor drainage] was caused by the severity of the slopes," says Smith. "Water would wash sand to the middle of the bunkers."

Bunker slopes were modified, and the bunkers were filled with a coarser, heavier, tan-colored sand.

Over the winter, the crew installed an additional 100 drains to improve water flow from the slowest-draining areas into local creeks and holding ponds. Mathews and Smith use a combination of "French" drains—which are basically large holes dug without tile and backfilled with rock—and tile drains to divert water in low-lying areas.

"From an economic standpoint, the drains are essential," says Smith. "It's important to getting people out to play golf year-round."

To further improve fairway drainage and playability, a new topdressing program was begun. Fairways are now topdressed twice a year with a very coarse grade of sand.

"It really helped out in the spring," says Smith. "It firms up the fairways. We're going to implement more topdressing." Continued shatter-core and hollow-tine aerification also help out.

## Hurry up and mow

Mowing—which, for any golf course, is the most often-performed task—must be done quickly and efficiently during breaks in the stormy weather.

Toro 216 lightweight, triplex mowers are used on the Port Ludlow fairways to avoid tire damage to wet turf.



Rainfall from adjacent hills flows onto this fairway regularly, making proper drainage a necessity.

PHOTOS BY THE AUTHOR



Equipment manager Dave Baber, left, and landscape manager Jim Stenger check the progress of wildflowers.

"We check the weather forecasts day by day," says Smith. "If five days of dry weather are in the forecast, we'll get out there to mow as soon as the ground is dry."

The turf goes semi-dormant in fall, which helps reduce mowing frequency. In early November, mowing is cut back to once a week. By December, mowing is needed only every two weeks.

Port Ludlow fairways are kept at a half-inch in summer, and raised to  $\frac{3}{4}$ -inch during fall and winter.

Greens are mowed at  $\frac{1}{8}$ -inch in summer, and .150-inch in fall.

The expansive, rolling contours of Port Ludlow are an added challenge to the mowing crews. Some of the 60 bunkers have dips so deep they have to be groomed with fly mowers.

#### **Saving money, pleasing golfers**

Three acres of out-of-play area have been converted to wildflowers, which equipment manager Dave Baber says has

reduced labor by about 200 hours. About three more acres of wildflowers are to be sown among overgrown ryegrass in out-of-play areas, and along paths between greens and tees.

In addition to the wildflower mix, Stenger's crew of four plants about 24 varieties of annuals—for a total of 6,000 plants—during a "crash" spring planting program.

"We're a resort golf course, explains Smith, "and the price [to play] goes up May 1. So we want all the plants in the ground by that time. It's a two- or three-man operation."

Rhododendrons are a popular choice for shrubbery around the course. Stenger adds up to 100 rhododendrons each year, and feeds them four times annually.

#### **'Liquid sod'**

Baber makes good use of soil cores. He combines the plugs with seed and sand to make what he calls a 'liquid sod' mixture, similar to that which you might see on a tee for divot repairs. He says the mix helps the seed germinate quickly, and is used for quick fixes around the course, such as along cart paths or deep tire marks.

The soil-sand-seed ratio is 5:1:2.

"If you've got the right temperature," says Smith, "you can even grow [turf] nurseries with it."

#### **Let the poa grow**

*Poa annua* (annual bluegrass) thrives on the course thanks to the cool, moist climate. Greens are 70 percent poa, but Mathews and Smith make it work.

"You don't try to get rid of *Poa annua*," advises Smith. "You can have quality turf with poa if you maintain it. It doesn't like 80-90 degree weather, and can take up nutrients at air temperatures 10 degrees cooler than bentgrass can. So even into the winter months, the poa turf is healthier." □

## Greens and fairways alike respond well to 'spoon-feeding'

The IPM plan followed at Port Ludlow includes weekly documentation of disease flare-ups. Assistant superintendent Jim Smith says he can pursue a curative plan of attack and plan fertilizer and pesticide applications as needed.

"A bonus of the IPM-documented program is that we can evaluate and then react," says Smith.

Last summer he and superintendent Jerry Mathews tried biostimulants from the Floratine Co. (Collierville, Tenn.) to promote root growth: 0.2 lb. were applied to each green in two-week intervals; 3 to 4 lbs. are applied to fairways four times a year.

Lately, the nutrient program for Port Ludlow's greens has been based on Floratine's liquid fertilizers: "Tiger Turf" 4-4-16; "Tournament Pride" 18-3-3; and "Starter Turf" 6-12-4.

"We go low-volume: 0.89 oz. per 1000 sq. ft.," explains Smith. "The lower the volume, the better."

Floratine's "Astron" is used every two weeks at 2 oz./1000 sq. ft. to further promote turf health and stress resistance.

A micro-nutrient called "Renaissance" is used once a month.

Tees are fed with granular products. □