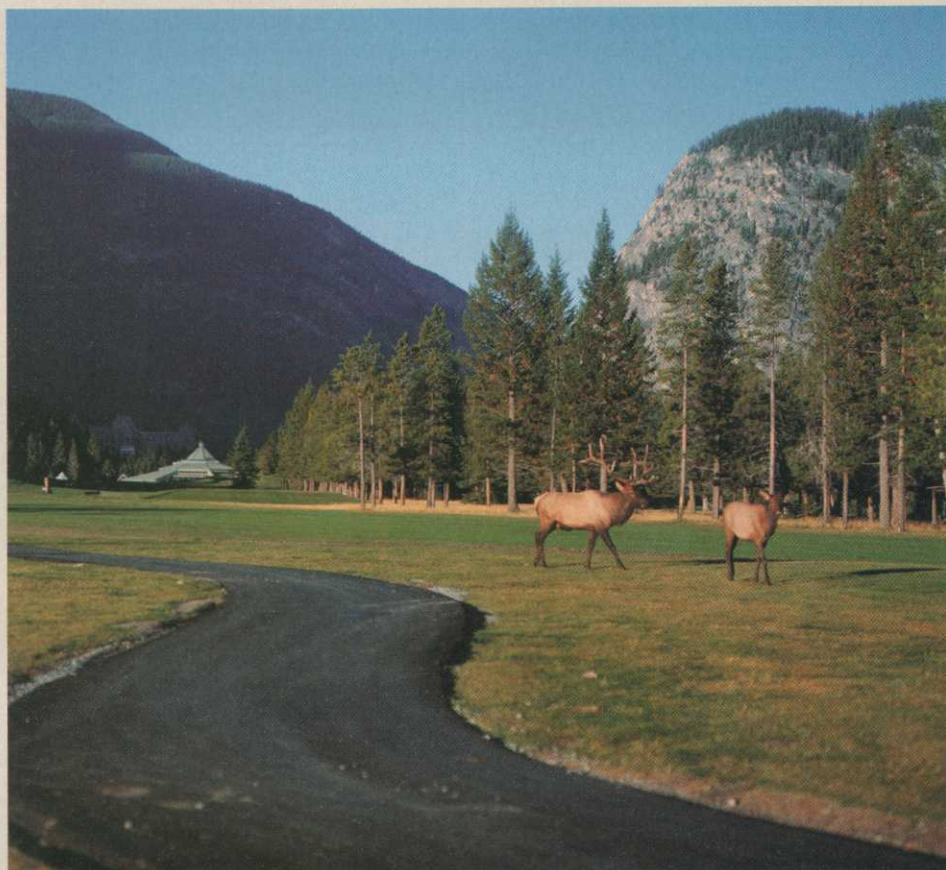


Neighbors From Hell

The elk are welcome at Banff Springs GC, but they tear up turf and smash flagsticks to smithereens. However, superintendent Kevin Pattison has learned to live with his unruly companions

BY ANDREW PENNER

The approach shots at the Banff Springs GC in Banff, Alberta, are made against by massive granite walls, stately pines, and the emerald blues and greens of glacier-fed lakes and streams. It's world-class golf in the heart of the Canadian Rockies — a stirring experience for any



MIKE KLEMMER

Problem

Elks are one segment of an abundance of awesome wildlife at Banff Springs, but they can cause several problems — from damaging greens and fairways to getting in the way of golfers.

Solution

You just have to deal with them, especially since the elk are protected by the Banff National Park, where the course is located. Strategically planting montane grass is effective in controlling their flow, as is using dogs to herd the animals.

golf connoisseur.

While the approaches and their stunning views can be distracting, it's what's often in the foreground that can pose a problem. That would be the elk — and there are plenty of them.

Not only can these large animals cause problems for golfers navigating the course (power cars often have to weave in and around herds feeding on the fairways), but they also present challenges for superintendent Kevin Pattison to keep the course in top form. This isn't an easy task when hundreds of 1,500-pound crea-

The elk are fun to watch on the course, but they can wreak havoc.

tures are continuously urinating, sparring, feeding and generally acting like the wild beasts they are on the pristine property.

While Elmer Fudd may offer a quick solution to the problem, the elk are protected in Banff National Park, where the course is located. Elk can't be hunted, and they are watched closely by park authorities for disease and injury. "We're in a position where we must work with the animals," Pattison says.

The elk present many problems agronomically. The animals continuously urinate on the course, which Stanley Thompson designed in 1927. Elk urine is secreted at body temperature in high volumes. During fall and winter, when the air and soil temperatures are low, the turf is stressed considerably and can't synthesize the chemicals in the urine nor handle the severe change in temperature. Consequently, the greens and fairways in Banff are dotted with dead spots in the spring. "We spend 120 hours in the spring repair-

ing urine spots on the course," Pattison says.

That's not all. The bulls have a tendency to spar with flagsticks, shattering them into pieces.

"We remove the flagsticks every evening; otherwise, we'd be cleaning up shrapnel on a regular basis," says Doug Wood, Banff's longtime director of golf. The elks' fixation with the flagsticks begins with their love of salt. When the golfers handle the flagsticks, salt is left behind from hands and fingers — a tasty treat for the elk.

Elk hoof prints also cause considerable damage to the turf.

"It takes us 25 percent longer to cut the greens in the morning because hoof marks must be repaired prior to cutting," Pattison says. "The worst situations in green damage arise when the bulls dig up large sections of the greens with their antlers. Sometimes these areas of destruction are the size of a car. Unfortunately, when this type of devastation occurs, the mangled turf must be painstakingly repaired and put back into place like a jigsaw puzzle."

Urine isn't the only substance that elk secrete in large quantities. While elk dung isn't anything to worry about from a plant's perspective, most superintendents and golfers consider it displeasing from an aesthetic standpoint. Interestingly, the maintenance crew in Banff uses leaf removal equipment to clean

up elk dung in the spring and fall. It's an immense job that requires over 600 working hours a year.

Many people don't realize that elk can be dangerous animals, and one must use common sense around them. Elk have charged golfers at Banff Springs, but there have been no reports of physical contact or injury.

The most dangerous time of year is mating season in late fall. Just like any man wooing the woman he loves, the male elk tend to get a little defensive, protective and downright stubborn when it comes to outside interference. The course enforces a free drop rule if a golfer's ball comes to rest near a bull defending his love interests.

Mothers with calves can also present a problem. Keeping a safe distance from a cow with her calf is the safest bet. "On occasion we have moved tee markers up to the fairway if, for instance, a mother is parked by a tee box with her calf," Pattison says.

Elk are as much a part of Banff Springs as the panoramic mountain vistas, beautiful bunkering, and elegant green complexes. But controlling the movement of the animals is critical to keeping the course in decent shape.



GORDON HUNTER

Banff's fairways are marked with dead spots in the spring, thanks to elk urine.

The course has a number of strategies in place to help guide the animals to positions where they'll be least affected by Joe Hack and his titanium artillery.

Montane grass, which the elk eat and bed in, has existed naturally on many areas of the course since its inception. However, when Pattison took over four years ago, he began an extensive program to strategically plant montane grass in areas where he wanted the elk to gather. Incidentally, the young elk also find protection from predators as they are camouflaged in areas where the grass grows long.

The areas containing the natural grass are situated between holes, behind greens and in other open areas on

the course.

Other steps include using scare tactics to move large herds off fairways into areas off the course or out of high-traffic areas.

Occasionally, "bangers" or "screamers" are used, which make loud noises and excite the animals into moving away from the threat and into safer areas.

In addition, Parks Canada implemented dogs to herd elk away from the town site. It recently began using

dogs on the course, and the elk consider them predators. This method is an effective way of moving elk in a controlled fashion.

The elk were at Banff Springs long before Thompson was commissioned to design the course in Banff National Park. They are permanent fixtures. But finding ways to work with and around the animals will continue to challenge superintendents long after Pattison is gone.

Educating the golfing public and implementing natural systems which help minimize confrontation and turf damage can go a long way in ensuring this mountain golf getaway will leave all parties at peace, Pattison says. ■

Penner is a free-lance writer and golf instructor from Calgary, Alberta.

Betting on Bent

Presidio GC
superintendent Kevin Hutchins opted to resod his greens with bentgrass – in a poa annua region – to combat nematodes

BY DOUG SAUNDERS

The Presidio GC in San Francisco is a historic golf course located in one of the world's great urban settings. The former military course, designed by Robert Johnston in 1895, is one of the oldest courses west of the Mississippi River. Its unique combination as a military course and a civilian private club existed until 1994, when military downsizing forced its closure.

Problem

A severe nematode infestation damaged Presidio GC's greens. Use of chemicals to eliminate the problem wasn't possible because of government regulations regarding the course.

Solution

Remove the old sod by hand and replace it with a bentgrass mixture that contained species that were nematode resistant.



The Presidio's maintenance crew removed the old sod by hand to preserve the greens' contours.

FREDDY BIRD

But the course's land was added to the National Parks System in 1994, and the Presidio became part of the largest urban park in the country. It's the only 18-hole course on national park land.

The federal government determined the course should become public and entered into a long-term lease agreement with Arnold Palmer Golf Management to renovate and operate the course under strict federal guidelines.

In 1995, Arnold Palmer Golf Management embarked on an \$8 million renovation program for the course that included a new irrigation system, re-sodding of tees and improving fairways.

However, renovating the greens to championship level presented the biggest challenge.

The problem

A severe nematode infestation was discovered in 1997 on the greens. Superintendent Kevin Hutchins, knowing a chemical remedy was not an option because



Kevin Hutchins, Presidio GC's superintendent, had to be creative to combat his nematode infestation.

of federal restrictions, had to find an alternative solution.

"Our mission is to operate the course with minimal chemical applications," Hutchins says. "By federal mandate, we're restricted from using many remedies available to other courses. This could be looked upon

as an unfair restraint, but I look at it as a challenge and an opportunity."

During 1997 and 1998, Hutchins tried several options to battle the nematodes. He changed his fertilization rates, tried different watering rates, and used several natural nematicides. But seven months of experimenting brought few results.

The solution

So Hutchins pursued another avenue. In 1999, he presented to the Presidio Trust, the operational oversight body governing the Presidio, the option of resurfacing the greens to eradicate the problem. The committee agreed to the \$500,000 project, and Hutchins developed a program to perform the task while still keeping the course open.

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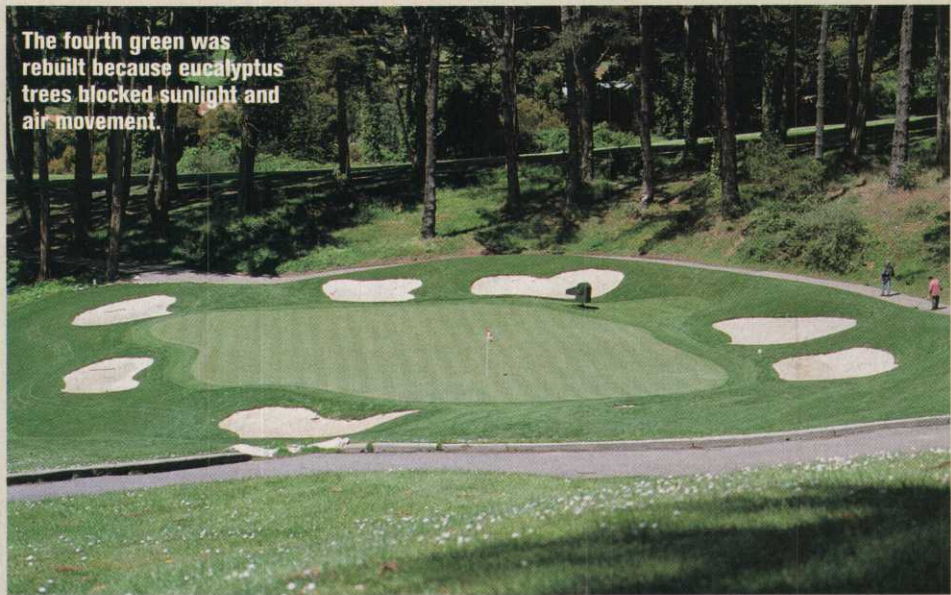
Real-Life Solutions

Continued from page 50

Hutchins' plan called to scrape out the old sod by hand to preserve the original contours of the greens. While the old greens were completely poa annua, the dominant grass in the San Francisco Bay area, Hutchins chose to resod them with bentgrass. Could bentgrass greens thrive in the cool, foggy climate of the area? "The choice of bentgrass was risky, but I needed to establish a grass that was resistant to the Anguina nematode variety," Hutchins explains.

The greens feature a combination of SR 1019, SR 1119 and SR 1020, the newest strains of disease-resistant bentgrass.

About a year after the resurfacing phase, Hutchins determined the par-3 fourth hole needed to be completely rebuilt to eliminate future problems. The green was small and sat in a



The fourth green was rebuilt because eucalyptus trees blocked sunlight and air movement.

FREDDY BIRD

low area that was surrounded by tall eucalyptus trees that blocked both sunlight and air movement.

Hutchins built the new green to twice its original size to allow for more pin placements. It was built to USGA specifications, and sub-surface drainage system was installed to increase airflow to the root

system. Power was run to the green's side so fans and halogen lights could be connected to increase airflow and light intensity.

The sub-surface aeration system was constructed with 4-inch perforated PVC pipe that was laid out in a grid over the green.

The perforated pipe was routed to larger drainpipes surrounding the green that routed to natural collection areas lower than the green. A 4-inch gravel layer capped the grid for water filtration.

The 14-inch-thick root zone was created with a mix of different sands, soil conditioners, rock minerals and organic amendments. Courses around the Bay Area are taking heed to the progress of Presidio's bentgrass experiment. "All of these measures came from being creative about finding solutions," Hutchins says. ■

Saunders is a free-lance writer based in Truckee, Calif.



FREDDY BIRD

The sixth green is handling the transition to bentgrass well, which is unusual in San Francisco's cool, foggy climate.



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