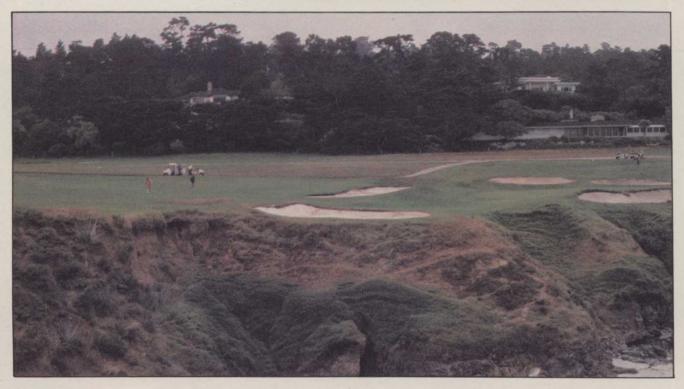
## **RENOVATION TUNES UP** PEBBLE BEACH



Treacherous along-the-ocean holes pose at Pebble Beach a particular challenge to greens superintendent Mike Phillips

Mike Phillips, superintendent at Pebble Beach Golf Links, overhauled his maintenance program to upgrade everyday playability on one of the nation's foremost courses.



Long known as annual host to the Bing Crosby Pro-Am Tournament, Pebble Beach Golf Links also won the honor of hosting the 1982 U.S. Open. But a severe weed infestation and turf deficiencies jeopardized the quality of playability for the tournament Pebble Beach Company had worked so hard to

Faced with urgent requests for turf improvements from both the USGA and TPA, Mike Phillips, superintendent at Pebble Beach Golf Links and his staff met the challenge head on. They renovated several fairways and roughs, rebuilt many sand traps and implemented a fine-tuned maintenance

Phillips believes the challenge was really a blessing in disguise.

"We've had a history of terrible Kikuyu grass and although we knew the only way to control it was through renovation, we put it off. The request by the USGA and the TPA prompted us to renovate sooner," he claims, adding that the USGA's maintenance requirements, coupled with his own program, are helping keep the course in championship shape year-round.

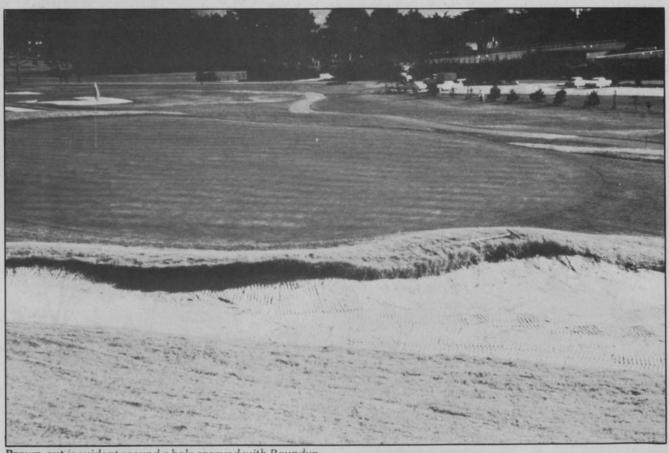
Kikuva grass tends to form a thick mat (a thatch layer about two to four inches thick) causing a puffiness in the fairways.

"This puffiness caused the ball to set up high, producing flyer lies," Phillips said. "It became very difficult to mow fairways to a halfinch. With the renovation program complete, the new fairway turf was cut at a true half-inch."

Since Kikuyu grass is very prolific, reproducing by seed, rhizome and stolon, Phillips recalls that the grass spread from small, localized pockets over most of the fairways rather quickly. To keep the problem in check, he had his maintenance crews routinely hose down equipment operated in the infested areas after use to prevent seed transport. But, it still spread via wind, carts and golf shoes.

Phillips' controlled maintenance program has kept the Kikuyu grass

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Brown-out is evident around a hole sprayed with Roundup

under control and he has been able to upgrade the course for everyday play. All of the sixth and part of the tenth fairway, around the third, eighth and ninth greens and spot areas on several other fairways have been renovated.

Seeking to complete the renovation as quickly as possible, Phillips opted to use Roundup herbicide in the fall of 1979. A non-selective foliar-applied herbicide, Roundup "translocates" through the vascular system of the plant, controlling both above and below ground

"We were able to spray and reseed in just two-and-a-half weeks," said Phillips.

After applying a two-percent solution of Roundup and waiting two weeks for the chemical to circulate down through the Kikuyu grass and existing turf, Phillips raked out the dead grass, applied Tupersan for annual grass and seedling control and reseeded with a ryegrass/ bentgrass mix. Because regrowth from seed is an ongoing concern, a second application of Tupersan was made.

Prior to applying Roundup, Phillips, who usually mows the fairways three times a week, let the grass go uncut for a week to increase the amount of emerged vegetation exposed to the herbicide. "This insured the herbicide was translocating through almost all of the existing turf," he said.

Phillips estimates the total cost of the renovation at about \$1,000.00.

"That includes labor, seed and

## Kikuyu grass spread from local spots to most fairways quickly.

herbicide," he said.

Phillips contends that by using Roundup, he was able to renovate at a lower cost without closing the course.

"Perhaps the main benefit of the renovation is that we are no longer maintaining Kikuyu grass," says Phillips. "Our bentgrass/ryegrass turf looks and plays 100 percent better. The sixth fairway is now the nicest on the course."

To strengthen the turf and create a thick stand, Phillips and his tenmember maintenance crew aerated the rough and fairways at an accelerated rate, about three to four times a year, compared to twice a year in the past. Greens were also aerified five times annually. About two weeks prior to the Open, the irrigation system was shut off to push the turf to stretch its roots in search of water. Last year. Pebble Beach completed the installation of a computerized irrigation system.

Since the U.S. Open is perhaps the nation's most prestigious golf tournament, USGA specialists made periodic checks on the maintenance program at Pebble Beach every two or three months.

"They checked to see what we were doing, see what had been renovated and generally monitored our overall maintenance program," said Phillips. "But we didn't mind. It kept us on our toes, and helped make Pebble Beach an even more beautiful and wellrespected course, not to mention the site of the 1982 Open."