



## *Green Fairways but Dormant Turf*

*A winter scene on a par-3 hole at Tucson National Golf Club where dye has been applied.*

by **JIM TALLEY**, Golf Course Superintendent, Tucson National Golf Club, Tucson, Arizona

**G**olf in the Southwest is a 12-month game, and maintaining a course for year-'round play presents a variety of problems to be solved by the golf course superintendent. If he were building a new course, one of the first questions to be answered would be "what is the best fairway turf I can use, since fairways make up the major acreage of my course?"

If he were located in the southern half of the United States his answer would probably be bermudagrass or one of its hybrids. More often the superintendent already has the planted fairways of an established golf course and they are in bermudagrass or one of the hybrids which are dominant in the area.

Tucson National Golf Club is a course of 7,200 yards, planted from tee to green, including roughs, in Tifway 419. Greens are Penncross bentgrass. The course is situated in a desert setting using natural vegetation, palo verde mesquite, sahuaro, aleppo pine and olive trees.

Bermudagrass thrives in warm weather, generally April through October and goes dormant after the first frosts in the late fall, turning a very light brown, almost white. Golfers like green; green to cut the sun's glare, green to provide a target outlining the fairway and green to form a background so that he can follow the flight of the ball. So how do we get a green golf course during the winter season? Answer:

Either overplant with a grass that grows in the winter or dye it green.

At Tucson National Golf Club we dye it green. This decision was made after trying a winter rye overplant and after experimenting with dyed fairways and weighing the advantages and disadvantages of each method. We feel that with all factors considered, the dye application is superior. We have used it three seasons and plan to continue indefinitely. Acceptance by our golfing membership is excellent and our maintenance costs are significantly reduced.

Overplanting winter ryegrass involves (a) purchase of seed, (b) sowing of seed, (c) fertilization, (d) a continuous irrigation program with particularly heavy irrigation thru germination, (e) a continuous mowing program, (f) and finally a painfully slow transition to the Tifway turf in the spring. (Competition between rye and Tifway in the spring retards the Tifway significantly.) Clumps of ryegrass last until mid-summer, contaminating the Tifway turf.

The dye operation is a simple one. The dye is applied after the grass blades have turned

brown and are dry and capable of absorbing the pigment. After experimenting with a number of dyes, comparing color, light fastness, ease of application and finally cost, we chose a particular lawn concentrate which mixes at a ratio of 1 to 50 with water. Application is made with a regular fairway spray unit, 18 gallon-per-minute pump, and a 20-foot boom fitted with low volume nozzles on 11-inch centers.

The spray nozzles are set at 22 inches above the turf surface. Pump unit pressure should be at least 150 PSI. Tees and fairways are sprayed at about 1½ to 2 miles per hour, depending on the shade of green desired. By spraying we eliminate planting, fertilization, heavy irrigation, mowing and the slow transition mentioned above. Moreover, we have no ryegrass contamination at any time.

We do recommend weekly irrigation to retain soil moisture, which also moistens the grass blades giving them better resilience and washes away accumulation of dust. Water does not affect the dye once it has been allowed to set.

Overplanting winter rye has one important

*Landing areas are easily designated for the winter golfer.*







*Superintendent Jim Talley reports excellent acceptance by the membership.*

disadvantage. If you have experienced a *Poa annua* invasion of your bentgrass greens, you will certainly understand this emphasis. We find that most rye seed contains *Poa annua* seed contamination and that by planting winter rye we are introducing *Poa annua*. Eventually *Poa* will appear in the bentgrass greens. There is no *Poa annua* in the dye we use and by dying rather than overplanting we are eliminating a serious problem for the golf course superintendent.

At Tucson National we dye the tee surfaces and fairways. The fairways start ninety (90) yards in front of the women's tees. The rough between the tee and fairway is left a dormant brown. In this method we mark fairway areas in green contrasting the rough, which is left its natural brown. The fairways are sculptured up to the collar of the greens.

I have said that acceptance by the membership is excellent; acceptance by the pros in the Tucson Open was equally good. Their consensus was that dormant Tifway or bermuda is an ex-

cellent hitting surface with consistently good lies and that the dyed surface answered all the requirements of cutting glare, outlining the target area and providing a dark background.

Our original application of dye made in early December cost less than \$5,000. Two months later a very light application was made to televised holes and to turf around the clubhouse area which was not part of the golf course. Total cost for the year was well under \$7,000. Compared with previous overseeding of winter rye, we calculate a savings of over \$8,000 when seed, mowing, fertilization and irrigation are considered.

If your course has an annual ryegrass overseeding requirement, you might well consider our program for 'greening up' the course. It is simple and relatively inexpensive. In addition, the "free" winter months allow you to take advantage of seasonal dormancy and finish those maintenance projects you never have time for otherwise.