



## FAIRWAY CONVERSION SAVES WATER AND GENERATES PROFITS

Black Gold Golf Club | Yorba Linda, Calif. Bill Houlihan, director of agronomy Pat Gross, USGA agronomist

Reducing the amount of water required to maintain a golf course makes sense from an agronomic, economic and environmental standpoint. This is especially true in the western U.S., where water costs are rising and access to irrigation water is becoming increasingly unpredictable. Black Gold Golf Club is a city-owned golf facility in Yorba Linda, California. It opened in 2001 with perennial ryegrass fairways that required significant amounts of irrigation to survive the hot and dry summers. As a result, summer playing conditions tended to be soft and wet, and turf loss was common. Director of Agronomy Bill Houlihan and his team were doing the best they could, but ryegrass fairways and poor soils had the deck stacked against them.



Houlihan, the golf course management company, and decision-makers from the city wanted to put the course on a more sustainable path that was going to increase golfer satisfaction, reduce costs and prepare the course for future water shortages. After consulting with USGA Agronomist Pat Gross, the idea of converting the fairways to a warm-season grass gained traction.

"We had been fighting against kikuyugrass from the beginning," said Houlihan, "and we'd seen how tough it was and how well it did in our difficult growing environment. All of a sudden, kikuyu fairways were looking like a pretty good option."

"Kikuyugrass thrives during Yorba Linda's warm summers," said Gross, "and it has great winter color retention and excellent durability – valuable attributes for fairway turf on a golf course that is busy year-round."

The city could not afford to close the golf course for a fairway conversion, so Gross and Houlihan developed a plan to convert the fairways gradually over five years with a combination of seeding into the existing turf and sodding key areas. When all was said and done, Houlihan had planted 6,300 pounds of kikuyu seed and more than 125,000 square feet of kikuyu sod.

Gross visited the course each summer and prepared a report for the city to keep them apprised of the progress. "Pat was an objective voice that could provide updates and help explain what we required to be successful," said Houlihan. "As the kikuyu took over, I implemented a totally new management program and needed some new equipment. Pat explained all that so everyone was on the same page throughout the process."

Today, the fairways and roughs at Black Gold are almost entirely kikuyugrass. The impact on water use, playability and revenue has been dramatic. "The course is drier and much more playable than it ever was before, and they have grass where they never used to. The golfers love it," reports Gross.

Houlihan keeps careful track of water use, and from 2010 to 2017 the course saved an average of 21 million gallons each year as a result of the conversion to kikuyugrass. This amounts to significant savings on the facility's water bill and helps conserve a critical resource. In addition, during recently mandated water restrictions, Houlihan had much greater flexibility to allow areas to dry out knowing the kikuyugrass would recover. "With ryegrass, those areas would never have come back," said Houlihan.

Better playing conditions and reduced costs have had a big impact on the bottom line at Black Gold Golf Club. Today, the facility is making a consistent profit for the city where it used to lose money.

"Having ryegrass fairways wasn't delivering the playability that we wanted, and the maintenance costs were increasing," recalls Houlihan. "With Pat Gross' help we were able to make a big change with minimal disruption that has put the facility on a sustainable path into the future."