



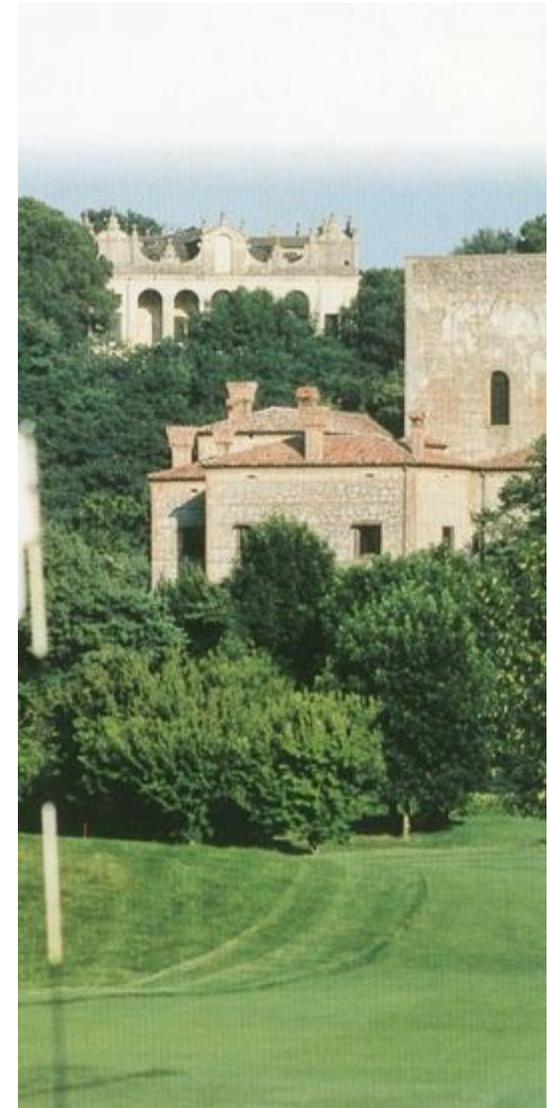
SportsTurf 25th Conference & Exhibition MANAGERS ASSOCIATION

January 21-25, 2014

San Antonio (TX)

Latest Trends in European Turfgrass

THE GOLF DELLA MONTECCHIA EXPERIENCE



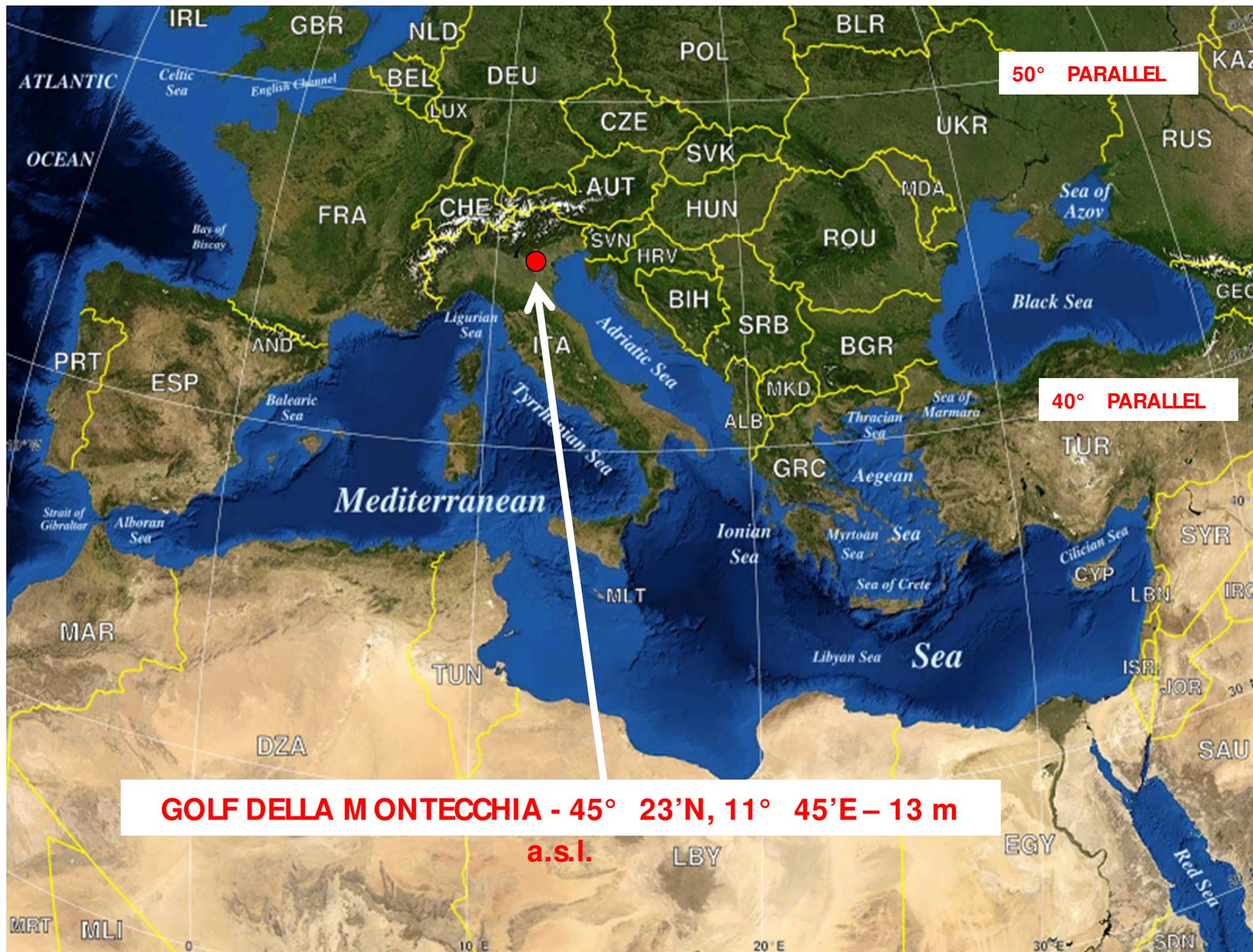
Alessandro De Luca

Agronomist – Green Section of the Italian Golf Federation





Golf della Montecchia is located between the city of Padua and the extensive spa area (Abano Terme) and the Parco dei Colli national park.



50° PARALLEL

40° PARALLEL

GOLF DELLA M ONTECCHIA - 45° 23'N, 11° 45'E – 13 m a.s.l.



The golf course was established back in 1988 by a group of local businessmen.

Designed by English architect Tom Macauley, consists of 27 holes comprising the 3,387-yard yellow course, the 3,424-yard red course and the 3,485-yard white course.



The Club hosted PGA European Tour competitions (Challenge Tour in 2001, 2002, 2013 & Alps Tour in 2010, 2012) and several National Amateur Tournaments.



The original grasses at Golf della Montecchia fairways and tees were cool season infested year by year with annual bluegrass and common Bermuda.

AREAS	GRASS SPECIES
Greens & collars	<i>Agrostis stolonifera</i> (Creeping bentgrass) cv. Penncross (holes 1-18) <i>Agrostis stolonifera</i> (Creeping bentgrass) cv. Pennlinks (holes 19-27)
Tees	<i>Agrostis stolonifera</i> (Creeping bentgrass) cv. Penncross, <i>L. perenne</i> (Perennial rye), <i>F. rubra</i> (Red fescue) and <i>P. pratensis</i> (Kentucky bluegrass)
Fairways	<i>L. perenne</i> (Perennial rye), <i>F. rubra</i> (Red fescue) and <i>P. pratensis</i> (Kentucky bluegrass)
Surrounds, semi rough and rough	<i>L. perenne</i> (Perennial rye), <i>F. rubra</i> (Red fescue), <i>P. pratensis</i> (Kentucky bluegrass) and <i>F. arundinacea</i> (Tall fescue)





The drainage system is very efficient and this represents a strength in wintertime but a weakness in the summer months when the temperature often rises to 35 degrees C and there are regular periods of drought.

For that reason the Club had to use a considerable quantity of water and a large amount of pesticides in order to protect and repair stressed turf.



The maintenance program required every year
autumn overseeding and the maintenance
cost was unsustainable.



In 2003 a very long period of drought caused loss of turf both in Montecchia and in most of the Italian golf courses.







2003



2003

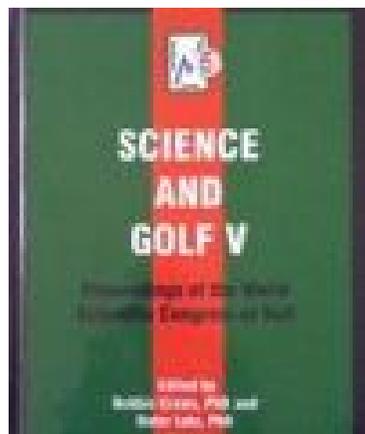
For that reason in 2004, the Golf della Montecchia started a study with Pisa University and the Italian Golf Federation Green Section in order to identify turfgrass species more suitable for their transitional climate.



Results indicated the great adaptability of warm season grasses, in particular Bermudagrass and Zoysiagrass: less water and nutrients use, no pesticides needed, increased turf quality included the four month dormancy period.



The results of the trial were presented at the 5th World Scientific Congress of Golf at Phoenix, Arizona in March 2008 and at the 1st European Turfgrass Society Conference in Pisa, Italy a couple of months later.



On 2007 Bermudagrass Tifway 419 was sodded on the driving range teeing ground.

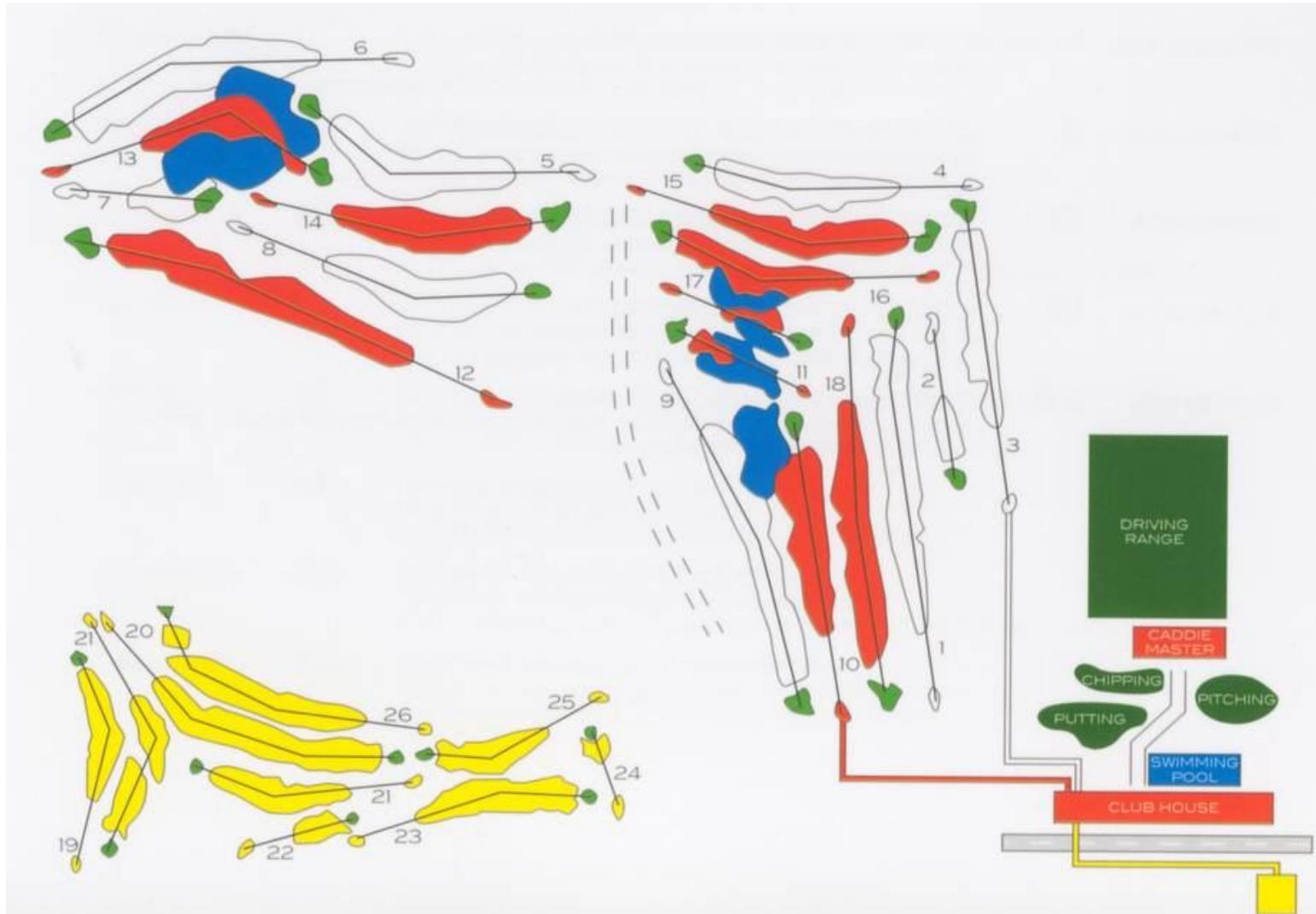


June, 14th 2010



In 2010, Golf della Montecchia take the decision to start a program to convert tees and fairways from cool-season grasses to Bermudagrass using Patriot, a cultivar specifically selected for the transition zone.

To limit disruption for the members, the work was scheduled over three years (2010 White course, 2011 Red course and 2012 Yellow course)



An innovative technique (small plants instead of stolons) was used to re-open the course in six weeks.







June, 21st 2010





June, 22nd 2010

June, 25th 2010



July, 7th 2010



July, 13th 2010



July, 20th 2010



July, 29th 2010



August, 7th 2010

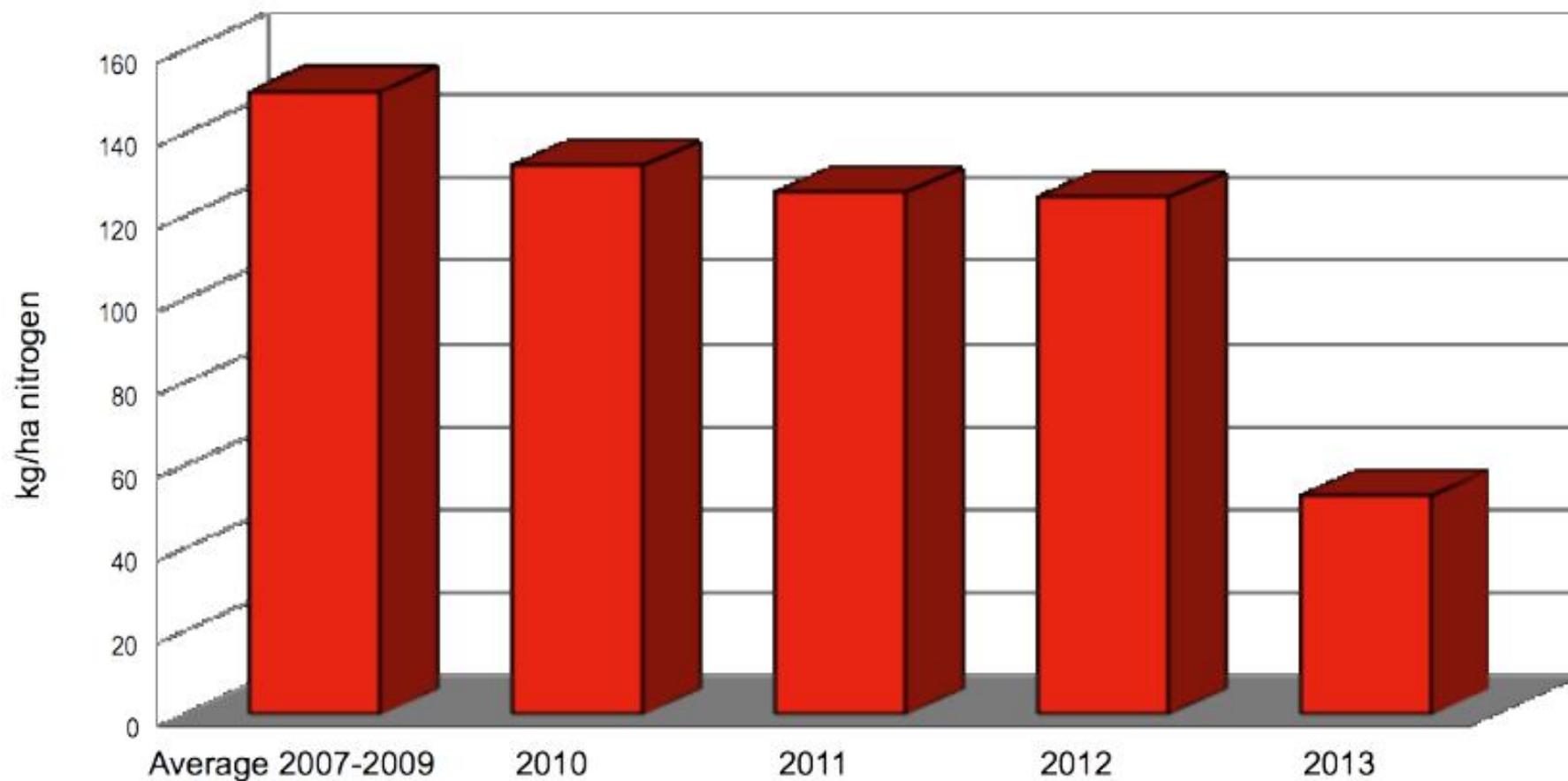


Actual maintenance data shows significant differences when compared to that from previous years: dramatic reductions in terms of water consumption (**70% less**) and fertiliser inputs (**80% less**).
No pesticides used in 2013.



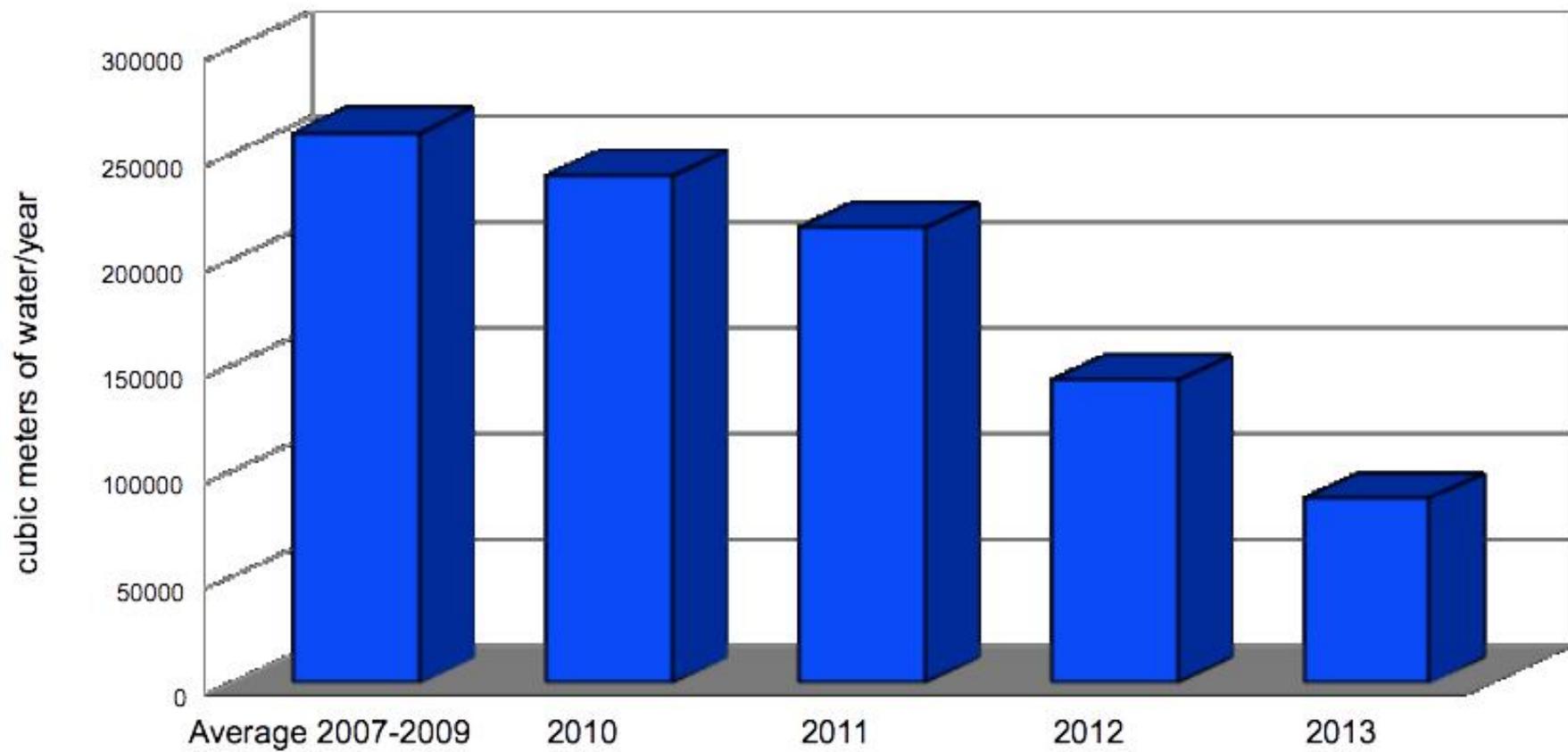
Total nitrogen applied on tees and fairways

Golf della Montecchia



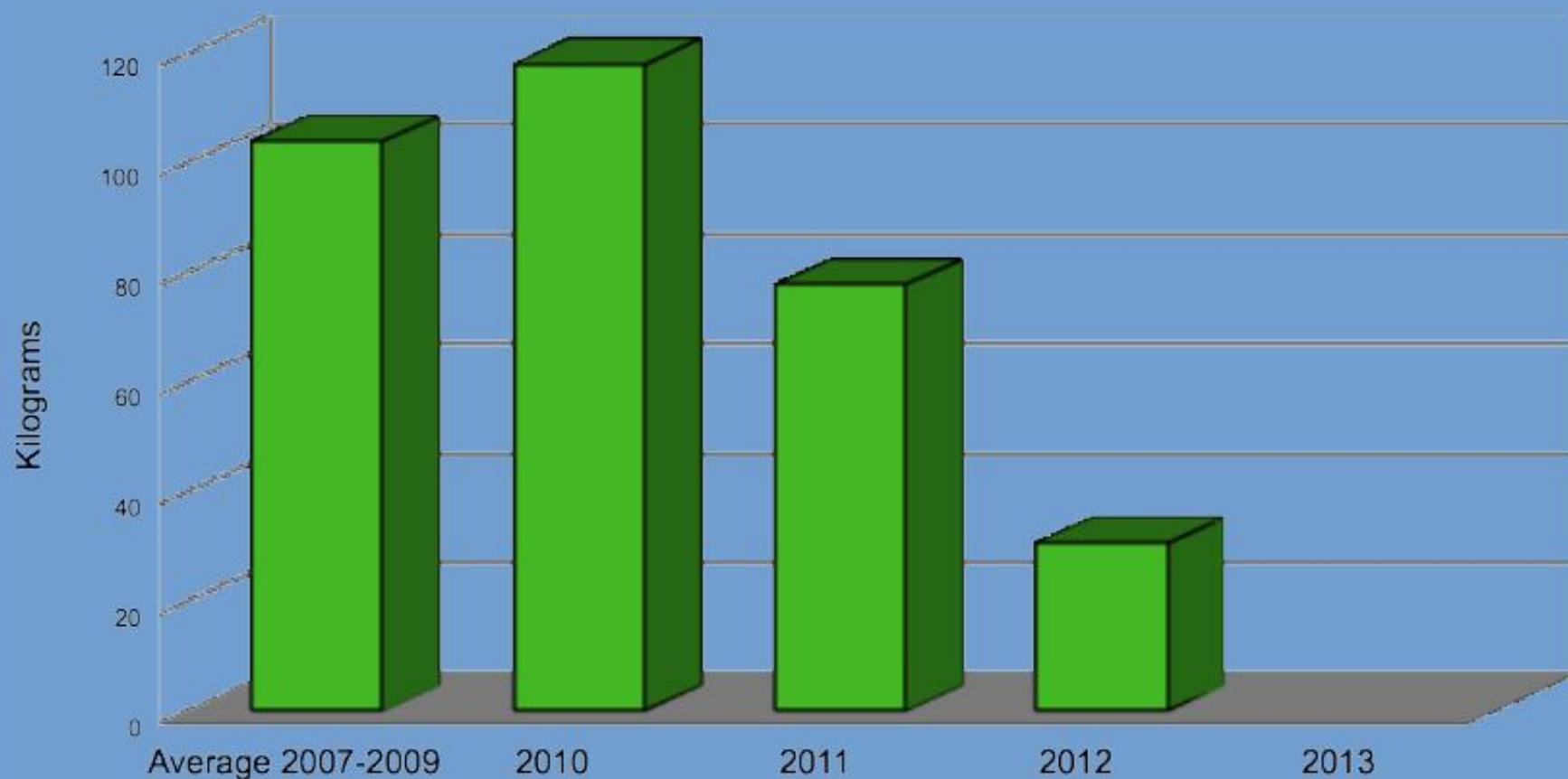
Total water consumption

Golf della Montecchia



Pesticides used on fairways and tees

Golf della Montecchia



Thanks to our conversion to Bermudagrass plus a number of additional measures aimed at enhancing its sustainable performance, Golf della Montecchia was awarded the **G.E.O.** Environmental Certification in May 2013 (Golf Environment Organisation)



A photograph of a golf course in winter. The fairways and tees are covered in a layer of snow. In the distance, a yellow flag is visible on a green. The sky is a clear, pale blue, and the trees are bare, indicating a cold season.

Golf della Montecchia is currently the most northerly course in Europe to have Bermudagrass on its fairways and tees and has become a model in the Mediterranean region for clubs with similar climatic conditions.