IDM Golf

especialistas en greenkeeping

Centro Nacional de Golf: RFEG

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June, 2012

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1. INTRO

It was good to see the Spanish Federation Golf Course in such good condition. The only problems were washouts in some of the fairways from the heavy rains. The areas in the fairways that were not affected by the washout were uniform and had good density. The greens and tees were also very smooth and had good density. There were very deep and dense roots in the greens, tees and fairways. There were massive roots in the aerifier holes showing the importance of aerification in maintaining healthy turf. Also, they all had great structure down below 10 cm. This is a good indicator that the turf will survive the summer stress period. The greens are still accumulating a lot of thatch since they are still predominately creeping bentgrass. You should continue on with your aggressive aerification program to keep the thatch development at a minimum.

There is still a moss problem in some of the greens. The longer the moss remains in the greens the more difficult it becomes to control. Each leaf is

capable of forming a new moss plant. Such cultural practices as mowing, aerification and verticuting can spread the moss. Verticuting is one of the principle ways moss is spread in the green. In Spain you are lucky to have a product called Mogeton which will kill the moss with one or two applications. The weather may be too warm to use the product at this time but it should be used in the fall.

2. CONTROLLING POA ANNUA

There is a new herbicide for the control of Poa annua in creeping bentgrass greens called Xonerate (Amicarbazone). While still in the early testing stages it has shown promise as a Poa annua control. In my early testing of the product it seems cultivar specific so you will need to see if it will have any adverse effects on the Brighton creeping bentgrass in the greens. It is more phytotoxic to creeping bentgrass at temperatures above 28 C so it should only be applied at cooler temperatures. In US test it usually takes 4 applications to completely eradicate the Poa annua. If it becomes available in Spain you may wish to try it on your new short game greens. Most of the greens on the standard course have too much Poa annua in them to use the product without causing severe turf loss. It would be good information to have especially if you are successful with your interseeding program on the greens.

3. PLANT GROWTH REGULATORS (PGR'S)

The Paclobutrazol applications have done a good job of slowing the encroachment of Poa annua into the greens at Centro Nacional de Golf de la Real Federación Española de Golf, but as usual without a hand weeding program the Poa annua eventually becomes the dominant species on greens. One of the problems when greens go through the transitioning from creeping bentgrass to Poa annua greens is the bumpiness the Poa annua causes when it is producing seeds. When the Poa annua initially invades the greens, it appears as small patches of grass. These patches of grass produce a lot of seed in the spring. The seeds rise above the canopy causing an uneven surface and interfering with putting. The massive seed production period lasts about 5 weeks and then subsides with the arrival of warm weather.

4. POA ANNUA SEED HEAD SUPPRESSION

Proxy (ethephon)-Primo (Trinexapac-ethyl) should be applied at the first sign of seeding to minimize the seed head production. The Poa annua will begin seeding first on a south facing slope in the taller grass like in the rough or fairway. These areas should be monitored for seed head production. At the first sign of the Poa annua seeding on a south facing slope Proxy and Primo should be applied to the greens. This should be followed by a second application 3 weeks later. In the US the Proxy is applied at a 5 oz per 1000 sq ft rate and the Primo Maxx at the .10 oz per 1000 sq ft rate. The US Proxy formulation has a 21.7 % active ingredient concentration of ethephon and the Primo MAXX formulation has an 11.3 % concentration of the active ingredient Trinexapac-ethyl. These formulations should be compared to the ones available in Spain before making any applications and the rates adjusted accordingly. Applying these two PGR's should reduce the seeds in the greens during the massive seed head production period which usually lasts about 5 weeks.

Proxy works best at warmer temperatures, so the warmer the spring following application the more seed head reduction you will see. The Proxy plant growth regulator is what reduces seed head formation and the Primo MAXX is added to reduce the yellowing that is associated with applications of Proxy. Once the PGR effect of the Proxy-Primo applications has worn off biweekly applications of Primo alone should be made throughout the summer. It slows the growth of the turf allowing for a better cut which will result in truer putting. Primo MAXX also increases the cytokinins content of the turfgrass plant. The turfgrass plants produce a lot of oxidative compounds during the warm weather. Oxidative compounds destroy cell membranes causing an early senescence of the leaf. Cytokinins are ant-oxidants that prevent oxidative compounds from breaking down cell membranes.

One of the problems that golf course superintendents have observed is the lack of regulation during the warm weather. Many thought the turfgrass plants were becoming resistant to the Primo MAXX. Research has shown the lack of regulation was due to the rapid breakdown of Trinexapac-ethyl inside the plant during the warm weather. A formula was developed to allow more timely applications of Primo MAXX. The Model is based on degree day accumulation. Using a base zero when 200 C degree days are accumulated another application has to be made in order to maintain regulation. You take the high and low temperature of the day and divide by 2 and add the degree days up until 200 degree days are reached then the next applications will have to be made to keep the greens under regulation.

5. SAND BUNKERS

As we have discussed before there are too many sand bunkers at the Centro Nacional de Golf de la Real Federación Española de Golf for a public golf course. The object of a public golf course is to move play through as fast as possible. Bunkers only slow play down. The majority of golfers that play at the federation golf course are high handicaps and have a difficult time getting out of sand bunkers. These sand bunkers only delay play which usually results in 5 plus hour rounds of golf. It is also impossible to properly maintain the sand bunkers at the Centro Nacional de Golf de la Real Federación Española de Golf with the limited crew. There is just no way the sand bunkers can be raked every day as they should be. It takes many days following a major rain event before the washed out sand bunkers can be repaired. Half of the sand bunkers should be converted into grass bunkers, or in the case of fairway bunkers converted to waste bunkers, where the golfer can ground their clubs for an easier shot. This will speed up play and allow the maintenance crew to better maintain the remaining sand bunkers. Also most of the bunkers do not drain properly and need to have drainage and new sand added to them. It will make this task easier to accomplish and less costly by reducing the number of sand bunkers.

6. INTERSEEDING THE GREENS

The current creeping bentgrass cultivar on the greens is Brighton which has intermediate density of around 1200 to 1600 tillers per sq decimeter. Many of the newer creeping bentgrass cultivars have a better density of between 2200 to 3300 tillers per sq decimeter. The denser the creeping bentgrass cultivar is the better chance it has to compete against Poa annua. Some of the newer creeping bentgrasses with this greater density include Tyee, Alpha, 007, Declaration, V-8, and the Penn A and G series. These would all be better cultivars for interseeding the greens than Brighton.

To interseed the greens they should first be aerified and vertically mowed with the Graden. Then one half the seed should be applied followed by an application of sand to fill in the aerifier holes and Graden groves. Then the other half of the seed should be applied. This way you will have some of the seed down in the aerifier holes and the Graden groves which may or may not germinate, but if they do they will stand a better chance of surviving. The seeds near the surface which will more likely germinate but may not survive as well. To insure adequate moisture for germination and growth

the greens should be lightly irrigated 3 times a day in addition to whatever you apply at night.

7. INTERSEEDING FAIRWAYS

The same aerification and Graden process should be followed when interseeding the fairways. The perennial ryegrass seed should then be applied followed by an application of sand if possible. If not then the cores should be broken up and the sand from the cores dragged back into the holes and groves. It will be difficult to syringe the fairways three times a day, probably the best you can do is nightly watering. The perennial ryegrass will germinate within a few days and should become established quickly.

There is a herbicide called ethofumesate that can be used at high enough rates on perennial ryegrass to kill the Poa annua. The problem is you have a lot of Poa annua in many of the fairways. If you kill it, there will be many bare spots. I think you may need to repeat the interseeding program many times before there is enough perennial ryegrass to allow the ethofumesate to be used without causing severe turf loss. If you decide to use

ethofumesate the best results will be achieved if you make an application after the first frost and a second one two weeks later.

8. FOLLOW UP

I recommend a follow up visit to be performed in autumn, in order to review the course after the stress period of the summer.

9. VISIT DETAILS

Date	June, 2012
Attendees	Real Federación Española de Golf ▪ Mr. David Gómez (Director Green Section) IDM Golf ▪ Dr. Joseph Vargas ▪ Félix Melgar (Technical Director)

Dr. JM Vargas Jr.:

Signature