



Between late April and August, Mt Lawley Golf Club embarked on a greens improvement programme using herbicides to remove *Poa annua* and oversowing with 007 bentgrass



Mt Lawley's green light

John Forrest looks at the bold greens improvement project that has dramatically transformed the putting surfaces at Perth's Mt Lawley Golf Club.

C OVID-19 created a lot of uncertainty when it sent shockwaves nationally and internationally as golf courses were forced to close their gates. Very quickly COVID plans were put in place, with golf clubs showing a strong duty of care as many had older members who needed protection. Zoom meetings became commonplace, while from a staffing perspective Job Keeper enabled many clubs to keep their staff on across the various departments.

Superintendents and sports turf managers had to make some significant adjustments, exploring different ways of maintaining their turf surfaces due to reduced resources. Standing down staff, with no clear pathway or future for golf clubs, was extremely stressful for managers and it has certainly tested the mettle of all.

With adversity comes opportunity and as has been well documented since the pandemic first hit Australian shores, many golf clubs and sports turf facilities have taken the opportunity to fast-track or undertake various projects while their facilities were either shut or play was reduced due to restrictions. As seen in Victoria during the first lockdown in March, many clubs brought forward their course renovations or carried out other course works that would normally be disruptive or difficult to carry out under normal circumstances.

One Western Australian-based superintendent to do likewise was Mt Lawley Golf Club's Rod Tatt. Like a number of his counterparts, Tatt took advantage of the situation by putting forward a programme to improve Mt Lawley's greens through the use of herbicides to remove *Poa annua* populations and oversowing greens with 007 bentgrass.

Mt Lawley members had been crying out for green surface consistency for some time and for a multitude of reasons it had not been happening. Among the many factors working against Tatt were high traffic (the course pumps through 70,000 rounds per annum), the size of greens, a thatchy organic surface layer and sting nematodes.

A key trigger in making the decision to undertake such a project was the registration around that time of PoaCure (a.i. methiozolin). A root-absorbed pre- and post-emergent herbicide new to the Australian market, Tatt had seen the product in trial situations during his previous superintendent postings in Melbourne. The results he had witnessed were promising, with little or no phytotoxic impact to the bentgrass, and he could see its potential to remove *Poa annua* from Mt Lawley's existing 1019/1020 bentgrass surfaces.

Mt Lawley's 10th green a week after a second application of endothal was made in late April



Label instructions are clear that PoaCure is best applied with 10mm of water when daily temperatures are between 10°C and 26°C. With Perth heading into the cooler months the timing therefore was perfect. If not for PoaCure being available, the project would likely not have been considered.

For the plan to work, all greens had to be taken out of play for three months and temporary greens put in place. At that point competition golf had been suspended due to COVID-19 with only social golf being played. Tatt, together with Mt Lawley general manager Troy O'hern, took the greens improvement proposal to the Board and members to seek their support.

There are few opportunities to take 18 greens out of play for three months, so it was a gutsy move on the club's behalf, but one that was backed by a strong belief in what was about to be undertaken. There was a clear view of the procedure and the desired outcome. Heavy renovation and herbicide applications were selected rather than any major work, as a greens rebuild is already earmarked for late 2021. Tatt's background as superintendent at the likes of Cranbourne, Woodlands and Yarra Yarra golf clubs in Melbourne prior to his arrival at Mt Lawley in September 2018, also gave him the confidence and experience to ensure a successful outcome.

GREEN FOR GO

On 27 March, as COVID restrictions hit, all club staff at Mt Lawley were stood down except for the general manager and superintendent. Just over a week later a skeleton crew of ground staff returned to resume maintenance of the course. Over the next 10 days the greens improvement proposal was developed and discussed via Zoom meetings between the greens committee and Board.

The proposal was approved subject to member sanction via a survey and between 17 and 20 April the members were asked to vote on it. Comprehensive support was forthcoming, with 83 per cent of members in favour of the project proceeding. By the time the survey results had come through, Tatt had welcomed his full contingent of staff back to full-time hours which meant the project could proceed at speed.

On 23 April all greens were closed and endothal applied. Taking the greens out of play saw a turf health improvement after two weeks. After 2mm rain fell on ANZAC Day, the following day a second application of endothal was made, tank mixed with Primo at 1.5L/ha. The aim of this was to kill the *Poa* and heavily regulate the existing bentgrass, allowing the

soon-to-be oversowed 007 to germinate and grow with limited competition. Between 27 and 30 April the greens were renovated with 16mm hollow tines, topdressed and TX10 fertiliser applied along with gypsum and humibase.

On 1 May, all greens were oversown with 007 bentgrass at 1.2kg/100m² with two passes of a drop spreader, before the surface was rolled with a Sarel roller to ensure good seed-to-soil contact. The timing of the project proved ideal to plant and grow bentgrass in the cooler months. Often WA greens are seeded at the end of the golf season due to playing commitments. Planting bentgrass during a hot spring or summer period exposes the new surfaces to high temperatures and evaporation. The other important part about the timing was it suited the requirements for PoaCure and endothal applications for best efficacy.

By 4 May germination of the 007 bentgrass could be seen and a week later a pre-seeder fertiliser was applied. That was followed another week later by a preventative fungicide and the start of a weekly foliar fertiliser programme. The greens received their first mow at 7mm 21 days after seeding, with mowing height reduced to 5mm a week later and remaining at that height until opening day on 1 August 2020.

During May a weekly topdressing programme started and continued through winter. In June, with *Poa annua* emerging, Primo was applied at 1L/ha to settle growth of *Poa* until the PoaCure programme could commence. On 22 June the greens also received an 8mm solid tine.



On 1 May all greens were oversown with 007 bentgrass at 1.2kg/100m² with excellent germination (left) and coverage attained by the two-week mark (right)

The first application of PoaCure (2L/ha) was made on 20 July, 11 weeks after seeding with the 007 at the four-leaf stage. The greens were reopened on 1 August, cut at a height of 4.5mm, and two days later a second application of PoaCure was put out, also at 2L/ha. Three more applications of PoaCure were then made over the following month:

- Third application (17 August) 2L/ha;
- Fourth application (31 August) 2L/ha; and
- Fifth application (18 September) 4L/ha.

During September the greens started being lightly vertimowed and brushed and at the start of October they were given a 6mm hollow tine aeration and light topdress. On 19 October a sixth application of PoaCure was made at 4L/ha on half of the greens. (Rates were increased for the fifth and sixth applications due to some biotypes that were persisting). Come 24 October and the first round of the Mt Lawley club championships, the greens were performing well, were firm and running at 12' on the stimpmeter.

LONG-TERM VISION

Tatt notes that at times it looked like the PoaCure was not as effective as anticipated, but with a little bit of patience came the desired result. While the *Poa* plants looked like they were not being affected initially, over time they eventually melted out.

As expected, there are still some *Poa* plants persisting and Tatt was under no illusion that they would all disappear after just one season of applications. It will be an ongoing commitment to keep *Poa* to a minimum and





The greens received their first mow at 7mm 21 days after seeding, with mowing height reduced to 5mm a week later and remaining there until opening day on 1 August

most importantly presenting a surface that the members enjoy putting on. PoaCure will be applied once again in autumn and a spot spraying programme will be implemented. No paclobutrazol has been used on the course for nearly two years due to concerns about the impact on an already weak root system.

Mt Lawley has Santa Ana couchgrass fairways as well and part of the Poa control strategy is looking at areas around the course, especially those close to the greens. Nominee (bispyribac-sodium), a post-emergent herbicide, was applied on greens surrounds to remove existing Poa plants. A slight phytotoxic reaction occurred on the Santa Ana but recovery was quick. The Poa kill was excellent and stopped any Poa seed being trafficked onto the greens. Care was also taken not to get any Nominee on the new green surfaces.

As mentioned earlier, planning is currently underway to reconstruct all of Mt Lawley's green complexes as part of a Course Master Plan starting within the next two years. With such a major rebuild in the pipeline, Tatt has set up a trial on the club's turf nursery looking at various soil amendments to analyse their performance from germination to maturity through all seasons. As part of the analysis, the plots will be tested for moisture retention and firmness (using a Clegg hammer and penetrometer), surface coverage, uniformity, colour and nutrient retention. The trial plots comprise;

- 5% compost;
- 10% compost;
- 15% compost;
- 10% biochar;
- 20% biochar;
- 30% biochar;
- 10% biochar and 10% compost; and
- Profile porous ceramic.

BACKING THEIR SUPER

One of the highlights of the whole project according to Tatt was how the whole club worked as a team to undertake the project. It also showed how important good communication is between superintendent, general manager, the Board and committees so that the members are clear on what is taking place. The survey for the members gave them some ownership of the process and in this case a clear indication of support.

In October, after the greens had been opened, a YouTube video was posted by the club with O'hern interviewing Tatt about the outcomes of the programme and other aspects of course management.



Between five and six applications of PoaCure were made to the greens between 20 July and 19 October. Pictured above is the 4th green and below the 15th

"The programme has worked really well," Tatt explains in the video. "We had Poa germinate over the winter period as expected but we treated that with PoaCure. We will still have some Poa visible, but next year we will continue with the programme and get the greens as clean as we can. The 007 has worked very well and we now have the best density of grass coverage and a lot deeper root system and better structure which will set us up nicely for the warm summer ahead."

Tatt, together with his crew, have transformed the greens into surfaces that the members are now enjoying and proud of. No, Poa has not been completely removed, but the population is now at a far more manageable level. Perhaps the most refreshing aspect of this project is seeing a golf club back their superintendent and now reaping the rewards of his strong agronomic understanding.



Tatt says the greens currently have their best density, root depth and root structure for many years

With a likely greens replacement programme in the pipeline come the end of 2021, Tatt is undertaking an amendment trial on the club's bentgrass nursery green

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