



Making great sport happen

ABOYNE GOLF CLUB

Advisory Report on the Golf Course

Report Date: 9th March 2021
Consultant: Gary Smith



Aboyne Golf Club

Date of Visit: Monday 1st March 2021

Visit Objective: Review golf greens condition and confirm future maintenance requirements.

Present: Mr Colin Forbes – Course Manager
Mr David Munro – Greens Convenor
Mr Brian Kinkead – President
Mr Michael Kinloch – Director of golf
Mr Gary Smith – STRI Ltd

Weather: Sunny , 11°C.

Headlines

- The extreme environmental challenges and extended winter conditions experienced at Aboyne Golf Club have been the most difficult in recent memory, in terms of turfgrass survival.
- There are several plant health concerns resulting from the recent conditions, such as anoxia (absence of oxygen) due to ice encasement, a moss infestation alongside leaf tissue and crown hydration vulnerability from the freeze and thaw cycles.
- There was no evidence to suggest that previous maintenance chemical or nutritional inputs had a negative impact/influence on the current condition of the damaged grasses.
- Most grass plants in the examined sections were considered viable at the time of inspection, however, this could change if the current very cold and cloudy conditions continue.
- The bleaching/discolouration in many the damaged grass plants is directly related to historical Pathogenic expression of both Leaf spot disease and foliar Anthracnose disease. This has unfortunately exacerbated the impact of the challenging winter weather conditions.
- Higher wear sections such as the clean-up cut areas are expressing an increased stress reaction. The sections that have been utilised as temporary pathways/walkways are under extreme pressure; grass plant cover has been lost and inter-seeding will be required to regenerate the turf canopy.
- The greens should remain closed for a 7–14-day period with only light but agreed essential maintenance carried out.
- Regular golf should return on the main greens for season opening, but it is advised that the greens remain off limits to general play for as long a period as possible between now and the official golf season opening.

Key Actions

- Allow the greens a total rest period post surface thaw, apart from the agreed liquid applications.
- Apply seaweed (of the course managers choice) on a 3-5 day rolling programme from STRI visit for 14 days then revert to normal monthly applications.
- Apply a plant pigment such Syngenta Ryder to assist in overall plant health and protection strategy.
- Establish regular inputs of Fulvic acid and amino acids between now and the opening of the golf season.
- Establish a regular light brushing regime on the greens surface, until the plants return to full health.
- Inter-seed both Ultra fine Ryegrass (UFR) and Bentgrass (inclusive of creeping Bentgrass) into the sections where the canopy has thinned in recent weeks
- Aim to move to a more general but disciplined maintenance regime, if weather allows, week commencing 15th March 2021.
- If poor growth conditions persist, consider the use of a grow lamp system on the weaker sections of turf. However, limit the time on each section to mitigate any potential forcing growth stress.

Photo Observations and Comments



Figure 1: Ice encasement and lack of oxygen has caused a setback in the plants normal winter dormancy, with a visible necrosis of plants on several surfaces.



Figure 2: The traditional heavy wear sections have undergone grass plant loss. This is consistent on all damaged greens.



Figure 3: Moss ingress is apparent on several surfaces and will reduce as grass plant health improves.



Figure 4: Shade is having a negative influence on plants and could slow recovery from the recent challenging conditions.



Figure 5: Historical pathogenic activity is visible in the turfgrass canopy and has only compounded the abiotic stresses of late.



Figure 6: Core samples were intact in all the damaged greens and displayed positive root growth. The base of the cores on the damaged greens were very cold, however, the soil had thawed.

Photo Observations and Comments (continued)



Figure 7: Core samples on the less affected greens were all identical to this example and portrayed a root growth that in every case has coped with the recent difficult weather patterns.



Figure 8: The overall resilience and quality of the surfaces at Aboyne Golf Club was on display at the STRI visit.



Figure 9: All greens have been affected by the weather, thankfully, on most greens the damage is superficial and should make a full recovery in positive growing conditions.



Figure 10: At the time of inspection the sward damage on these surfaces was restricted to the upper 30-50% of the upper leaf tissue.

Recommendations

Greens

- The recent icy conditions have placed the greens grass plant swards under an immense stress and a 7–14-day rest period is advised for the greens at Aboyne Golf Club, post ice thaw. This rest period is necessary to support a gentle easing into the plant's natural growth cycles and chemical reaction processes. A strategy of forcing the plants on with increased Nitrogenous nutrition at this early stage of recovery would be disadvantageous to planned remedial outcomes.
- Apply seaweed-based bio stimulant products in a little and often approach, every 3-5 days throughout this rest period then revert to usual application volumes and intervals.
- The addition of molasses as a background carbohydrate supplement will assist the plants to suppress the negative outcomes from any potential abiotic stresses in the coming weeks.
- The use of Fulvic acid (5-10lt per hectare) in the off-season period will prove valuable to the greens condition going forward. Fulvic acid enhances cell division and elongation. Root growth is magnified with obvious benefits (so long as moisture and soil structure are appropriately managed) it also increases the plants oxygen uptake capacity with an associated increase in chlorophyll production and the permeability of plant membranes which improves the uptake of all nutrients
- The application of the turf pigment Ryder (manufactured by Syngenta) would be advantageous in these early stages of reparation. Applying a surface pigment now and continue throughout the off-season into spring (as required), this will not only help to improve the surface colour and grass plant density but will underpin a moderate increase in grass plant canopy temperature which will further encourage the grass sward recovery heading toward the new season.
- Inter-seeding on the high pressure/wear areas should be carried out using the Ultra-fine Ryegrass (UFR) cultivar followed by a Bentgrass cultivar of your Course Managers choice. This will enhance the recovery and alleviate any potential loss of sward density.
- Light brushing should be carried out every few days, in the first instance by hand, until the rest period ends, and greens surfaces are deemed healthy enough for more regular mechanical maintenance
- The planned programme of surfactant (wetting agent) and nutritional inputs are positive choices. Going forward these programmed applications should be continued with, once the rest period has passed, and weather patterns facilitate improving surface conditions.
- Aeration has been carried out and I would suggest a continuation of regular aeration after the rest period. Sarel rolling is encouraged on all greens at least twice monthly throughout the early season months, subject to weather conditions.
- Moss control is encouraged at the earliest opportunity on the healthier greens and when growth patterns allow on the damaged greens. A suitable liquid or granular control should suffice as with the increase in maintenance in coming weeks, the moss infestation should naturally diminish
- If needed the purchase or rental of a grow lamp rig should be considered for use wherever a weak area exists. This strategy, if required? will improve all round germination and grass plant growth, aiding greater production of chlorophyll, analogous with much improved grass plant density and vigour. If grow lamps are used, adopting a disciplined approach utilising more regular positional movement than traditionally carried out thus far would inhibit the potential for a lush soft growth habit.

In Summary

- The greens reinstatement at Aboyne golf course, should in most areas, undergo a rapid recovery. The balanced input of grass seed cultivars, aeration practices, alongside surface refinement operations and suitable nutrient and bio-stimulant inputs will develop a turf canopy return to its previous excellent condition. It will be inevitable that a few pressure points swill still exist in the sward recovery process and these sections should be given continued priority going forward.

Inter-seed, firstly with Bent grass and follow up Ultra fine ryegrass (UFR) cultivar will facilitate the necessary vernalisation process and underpin the possibility of increased spring germination.

The progress in sward quality, made over many seasons, at Aboyne Golf Club has been setback due to the recent weather conditions, however this is merely a temporary interruption and with the hope of favourable weather patterns ahead, the sward growth habits will improve in the coming weeks.

This approach will not only improve current surface condition but will also provide a platform for continued success and measurable quality of the playing surfaces at Aboyne Golf Club.

The target of a full recovery to playing condition for season opening is very challenging but technically still within target, but as we have witnessed so far this season the challenging weather conditions will no doubt continue to influence the outcome.

Woodland Management

- Shade is considered an abiotic stress to grass plants, it is important to have an overall tree management plan which responsibly identifies areas or single specimens for selected removal or a crown and canopy reduction strategy. Aboyne golf club leads by example and have had a plan in place for some time. This pragmatic and structured approach aiming to improve the health of surrounding turf grasses whilst developing the golf course with more native specimens in mind will ultimately improve the playing experience at the Club.

As a strategic ecological goal, it is exemplary and must be continued and allow the further improvements that are very much achievable.

Improvements need to take place as too many trees are having a deleterious impact on the quality of fine turf sections of the golf course

Signed

A handwritten signature in black ink, appearing to read 'Gary Smith', written in a cursive style.

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