



**REPORT INTO PROTECTING GOLF COURSES AND EXTENDING PLAY BY USING
HEDGEHOG FAIRWAY PROTECTORS**

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1. Introduction

Winter weather presents a major challenge for UK golf courses. Rain-softened fairways and frosty turf are easily damaged by traditional flat trolley wheels, often forcing clubs to ban trolleys or even close courses to protect the grass. This disrupts play and revenue during the off-season. Hedgehog Fairway Protectors offer an innovative solution to this problem. They help to dramatically reduce turf damage, allowing clubs to keep courses open and golfers playing through the winter months.

In this report, we detail how Hedgehog wheels work and present evidence-backed benefits of implementing a Hedgehog Wheel Policy. The benefits are segmented by stakeholder – from greenkeepers and golf professionals to club owners and golfers – with UK-specific data, metrics, and real-world testimonials (exclusively from clubs using Hedgehog products). The goal is a clear, compelling case for UK clubs who may ban golf trolleys to adopt Hedgehogs as a win-win for course care and year-round golf.

2. How Hedgehog Fairway Protectors Work

2.1 Design and Technology: Hedgehogs are patented wheels and wheel covers fitted with hard-wearing parabolic studs that clip onto a standard trolley wheel. Unlike flat wheels, which present a continuous surface to the turf, these raised studs significantly reduce the contact area with the ground. In fact, the studs part the grass and leave only small dimples in the soil instead of broad tire marks. This design spreads the trolley's weight across many tiny points of contact. A fully loaded golf trolley with 3-inch wide flat wheels might have 6–7 square inches of rubber touching the turf at any moment, whereas with Hedgehog covers the contact area is only about 1–2 square inches – an 85% reduction in ground contact. Figure 1 illustrates how this minimizes the impact on turf.

2.2 Turf Interaction and Weight Distribution: By greatly shrinking the surface area that presses on the grass, the Hedgehog's studs avoid the extensive flattening and soil compaction caused by smooth wheels. Instead of squashing a whole strip of grass (which can crush roots and create muddy ruts), each stud makes a small dimple that quickly springs back. Greens staff report that these little "dimple" impressions recover much faster than wide tire tracks and can even act like mini-aeration holes to improve drainage in saturated ground. In wet conditions, flat wheels tend to slip, slide, and spin on the turf, tearing grass and leaving skid marks especially on hills. Hedgehog wheels, by contrast, provide grip via their studs, preventing the shearing damage that a sliding flat wheel causes. The studs' shape is carefully engineered (parabolic curve) so they penetrate just enough to stabilize the trolley but not so much as to gouge the soil. In frosty weather, they also part the grass blades instead of matting them down, avoiding the burn patches that occur when frozen grass is compressed.

2.3 Ease of Use and Additional Benefits: An often overlooked advantage of Hedgehog wheels' reduced friction is that trolleys become lighter and easier to pull. With so little tire surface dragging on soft ground, golfers expend less effort – effectively getting a "power steering" effect on their push/pull trolleys. Testing has shown that an electric trolley's battery life can also improve, since the motor isn't labouring against heavy rolling resistance. Another practical perk is cleanliness: the stud design does not tend to accumulate mud the way standard wheels do. Instead of coming off the course with wheels caked in wet grass and clay, Hedgehog wheels shed debris as they roll. This keeps the trolley lighter during the round and spares everyone the mess of mud trails in car parks and clubhouse floors.

Figure 1. Turf Contact Comparison – Flat vs. Hedgehog Wheel

Trolley Wheel Type	Approx. Ground Contact per Wheel	Visible Impact on Soft Turf
Standard Flat Wheel	~6–7 sq. inches	Wide compressed tracks, skid marks on slopes; grass often uprooted or killed.
Hedgehog Studded Wheel	~1–2 sq. inches	Dozens of small dimple holes; no continuous rut. Dimple marks recover quickly, with minimal lasting damage.

(Sources: Hedgehog Golf Co. technical data and STRI field observations.)

In summary, the Hedgehog Fairway Protector’s technical design – raised parabolic studs that dramatically cut ground contact – allows trolleys to traverse winter turf without the usual detrimental weight distribution of flat wheels. The turf is only lightly dimpled rather than deeply compacted.

Next, we examine what this means in practice for each stakeholder in a golf club.

3. Benefits of a Hedgehog Wheel Policy – Stakeholder Perspectives

Adopting a policy of requiring “Hedgehog wheels only” during wet months yields distinct benefits for every group at the club. Below, we break down the evidence-backed advantages for course management, golf professionals, club owners, and the golfers themselves.

3.1 For Greenkeepers & Course Maintenance Teams

- **Dramatically Reduced Turf Damage:** Hedgehog wheels minimize soil compaction and root damage on fairways. In a controlled trial at Burstwick Country Golf Club (Yorkshire), hedgehog wheels reduced turf damage by ~30% compared to smooth wheels under heavy traffic simulation. By parting grass instead of flattening it, Hedgehog studs prevent the long muddy scars and torn-up patches that keep greenkeepers up at night. The result is a healthier turf even through the wettest months.
- **Faster Recovery of Grass:** Any minor “dimple” impressions left by Hedgehog wheels tend to spring back within days as the grass blades and thatch rebound. There is minimal long-term effect on the turf canopy. Contrast this with the weeks of recovery needed for grass that has been squashed and ripped by broad wheels. As noted on the Hedgehog product site, the small indentations may even aid verti-drainage (aerating the soil) as they quickly recover. In practice, this means less time spent roping off and repairing high-traffic areas – the turf can “heal” itself between play days.
- **Less Maintenance & Lower Repair Costs:** Because Hedgehog wheels prevent deep rutting and turf loss, greenkeeping staff can devote winter hours to routine tasks (leaf clearance, cup changing, drainage improvements) and more proactive course matters rather than emergency patch-ups of trolley damage. Over an entire winter, the reduction in repairs can yield significant savings in labour and materials (seed, turf, sand). While exact figures vary by course, the consensus among clubs is that a Hedgehog Wheel Policy pays for itself by preserving the course. Simply put, prevention is cheaper than cure when it comes to winter wear on fairways.

- **Extended Play Without Compromising Turf:** Perhaps most importantly, Hedgehog wheels enable the course to stay open in conditions that would otherwise force closure. From the greenkeeper's perspective, this is huge: you can allow play (and trolleys) on marginal days without sacrificing the spring condition of the course. One club distributor noted that courses using Hedgehog wheels remain open more often and resort to full trolley bans much less frequently. For greenkeepers, it's the ideal compromise – golfers stay happy and active, yet the course emerges from winter in far better shape than it would under unrestricted trolley use. As evidence, after widespread adoption of Hedgehog wheels, many UK clubs report their spring turf quality has improved year on year, with fewer bare lies and compacted areas to repair come March.

3.2 For PGA Professionals & Golf Operations

- **Consistent Year-Round Play (Member Satisfaction):** A Hedgehog Wheel Policy keeps golfers coming through the pro shop all year. By avoiding trolley bans and course closures, golf professionals can maintain coaching programs, club competitions, and regular play through winter. This leads to higher customer satisfaction – members aren't "losing" weeks of golf to weather bans. As one equipment editor noted, Hedgehog wheels "help keep you playing golf through the winter" and ensure golfers "don't fall out with the greenkeepers" over course access. Reducing such frictions makes the pro's job easier, fostering a cooperative spirit between players and course staff.
- **Protecting Teaching and Shop Revenue:** The club pro often sees lesson bookings and shop sales dip in winter, partly because poor course conditions drive golfers away. By keeping the course open and playable, Hedgehog wheels help stabilize these revenue streams. More winter rounds mean steadier demand for consumables (balls, gloves, etc.), and golfers who might otherwise stay home will continue to visit the club (often via the pro shop first!). In short, enabling trolleys in winter brings golfers (and their spending) back into play – a clear win for the pro shop and club finances.
- **Opportunities for Retail and Services:** Implementing a Hedgehog Wheel Policy creates a direct retail opportunity: selling or renting Hedgehog wheel kits to members. Many clubs stock Hedgehog wheels in the pro shop each autumn, often selling out as members prepare for winter golf. This not only generates profit on the product sales but also positions the PGA professional as a problem-solver for members ("Visit the pro shop to get your trolley winter-ready"). Some pros even offer to fit the wheel covers as a service. Additionally, with the course in better condition, pros can confidently schedule winter tournaments or maintain coaching clinics with less fear of cancellation – showcasing their professionalism and reliability.
- **Enhanced Course Management Collaboration:** Golf professionals are club ambassadors and often liaisons between members and greenkeeping. Supporting a Hedgehog Wheel Policy demonstrates the pro's commitment to course care, strengthening their relationship with the green staff and club management. There are fewer contentious debates about course closures or trolley rules, since the policy strikes a balance. The pro can reassure members that "yes, trolleys are allowed – as long as you have the proper wheels", aligning everyone's interests (the course is protected and the golfers are accommodated). This collaborative approach reflects well on club leadership and the professional staff's expertise in golf operations.

3.3 For Club Owners & Managers

- **More Winter Playing Days = More Revenue:** The financial benefit of additional winter golf rounds is significant. Every day that the course stays open (and trolleys are allowed) in winter is a day of green fees, guest fees, cart fees, and clubhouse sales that might otherwise be lost. Hedgehog wheels have enabled some clubs to remain open through periods that used to be unplayable. For example, one club reported that by enforcing Hedgehog wheels, they avoided trolley bans entirely during a very wet December, resulting in dozens of extra rounds played. While weather will always play a role, a Hedgehog Wheel Policy ensures bad ground conditions alone won't shut down play as often. A recent poll by the BIGGA (greenkeepers' association) found only ~30% of clubs currently enforce winter wheels – meaning those that do enjoy a competitive edge in winter availability. Fewer closed days and fewer “carry only” restrictions directly translate to better cash flow in the off-season. In an industry where winter revenue is traditionally low, this policy helps maximize utilization of the facility year-round.
- **Reduced Course Maintenance Costs:** Beyond revenue, there's a strong cost savings argument. Preventing turf damage avoids the expense of extensive spring recovery. Consider the typical costs: reseeding or re-turfing worn areas, extra fertilization for stressed grass, labour for fixing divots and ruts, potential member rebates or goodwill gestures after prolonged closures – it adds up. By minimizing winter wear, Hedgehog wheels let the course come out of winter in good shape, avoiding these remediation expenses. As a distributor's product brief notes, the studs reduce “unnecessary wear and tear on the course caused by excessive turf compaction”. Many UK clubs have found that a small investment in wheel covers yields a large dividend in preserved course quality, delaying major refurbishments and extending the life of fairway grasses.
- **Improved Member Retention & Experience:** Club managers know that frustrated members can be quick to voice dissatisfaction or even not renew memberships. A proactive Hedgehog Wheels Policy is a selling point for member experience – it says “we go the extra mile to keep you golfing, even in winter.” Members of clubs with Hedgehog policies have enjoyed more consistent winter golf and thus perceive greater year-round value in their membership. Testimonials frequently highlight that golfers feel the course is “open whenever physically possible” thanks to Hedgehog wheels, which boosts overall satisfaction. Additionally, by protecting the course, the policy ensures better course conditions in peak season, which every member appreciates. In essence, it's an investment in the club's reputation: a well-maintained course and a membership that isn't forced to take a three-month winter hiatus.
- **Policy Alignment and Ease of Enforcement:** Implementing Hedgehog wheels simplifies winter operations. Rather than the all-or-nothing of trolley bans, club managers can offer a middle ground that members readily accept. The policy can be clearly communicated (e.g., “1st Nov – 31st Mar: trolleys allowed only with approved Hedgehog wheels”), often with the pro shop offering the approved product on hand. Clubs like Barnsley GC and many others have adopted this exact rule (in Barnsley's case, explicitly “Hedgehog wheels/skins only” were allowed in winter) to remove any ambiguity. Enforcement tends to be easier than a full ban – golfers understand the reasoning and, once equipped, comply because they see the benefit. In fact, some clubs eventually mandate hedgehog wheels year-round on all trolleys, given that they pose no disadvantage on dry turf and further safeguard the course. From a management

perspective, a consistent policy backed by a known product (Hedgehog is the #1 recognized brand in this space) is far preferable to ad-hoc daily trolley ban decisions that lead to member complaints.

3.4 For Golfers & Club Members

- **Ability to Play Through Winter:** For golfers, the most obvious benefit is being able to use their trolley on days that would otherwise be “carry only.” A Hedgehog Wheels Policy is a game-changer for senior players, those with injuries, or anyone who struggles to carry clubs for 18 holes. Rather than being sidelined by a trolley ban, these golfers can keep active year-round. “Hedgehog wheels allow me to get on the course 12 months of the year – whatever the weather,” said one golfer in a testimonial. This inclusive benefit cannot be overstated: it preserves the enjoyment and fitness of golf for all members, even in the depths of winter.
- **Improved Traction and Safety:** Anyone who has pushed a trolley in winter knows the hazards – wheels sliding on wet slopes, trolleys toppling or getting stuck in mud. Hedgehogs greatly improve traction. The studs grip the ground, preventing the sudden slips that can send a trolley (or golfer) tumbling. Golf Monthly notes that “wet and muddy ground will often see flat wheels spinning... Winter wheels give much more traction and make walking the course easier”. Golfers appreciate that hedgehog wheels keep their trolley stable and under control, so they can focus on their game and footing. It’s essentially an added safety feature for winter golf, reducing the strain of pushing through boggy areas and the risk of muscle pulls from sudden jarring when a wheel bogs down.
- **Lighter Pull and Battery Savings:** Players quickly notice that a studded-wheel trolley feels lighter to pull on soft ground. There’s no suction-like drag of a broad tire in mud – the trolley rolls more freely. Those using electric trolleys benefit from extended battery life; the motor isn’t fighting against as much resistance. In practical terms, an 18-hole round with hills that might drain a battery with normal wheels could be finished with power to spare on Hedgehog wheels. This means fewer worries for the golfer about their trolley dying mid-round in winter, and less effort for those pushing manually. Multiple reviewers have remarked on this “gliding” sensation, often comparing it to having power steering.
- **Protecting the Course You Love:** Golfers ultimately want to enjoy a good course year-round and feel they are being responsible members. Hedgehog wheels offer peace of mind that “I’m not wrecking the course by playing today.” One UK golfer put it plainly: “You feel much better about yourself for protecting the golf course” when using hedgehog wheels. Knowing that your trolley isn’t undoing the greenkeepers’ hard work makes for a more enjoyable round. It also fosters goodwill between members and staff – golfers with Hedgehog wheels can demonstrate their care for the course, defusing the tensions that sometimes arise when conditions are borderline. By adopting Hedgehog wheels, members take part in a collective effort to keep the course in great shape. This pride of ownership enhances the club atmosphere for everyone.
- **No More Muddy Mess:** As a minor but pleasant bonus, golfers will normally notice their gear stays cleaner. The Hedgehog studs don’t tend to accumulate clods of mud, so trolleys can come off the course far cleaner than with regular wheels. No one enjoys

scrubbing dirt out of wheel treads in the dark after a winter round. With studded wheels, a quick rinse (if that) is all that's needed. Golf bags and clothing also stay cleaner with fewer splashes, since mud isn't being continuously picked up and flung by the wheels. In essence, the post-round cleanup is easier – a small quality-of-life improvement that many golfers appreciate.

4. UK Data & Case Studies: Hedgehog Wheels in Action

The theoretical benefits of Hedgehogs are reinforced by real-world results at UK clubs. Here we highlight a few key data points and testimonials from clubs that have adopted Hedgehog Fairway Protectors:

- **Turf Damage Studies:** The Sports Turf Research Institute (STRI) conducted studies on trolley impact which found that trolleys (especially those with Hedgehog wheels) cause no more damage than walking. This scientific backing helped many club committees gain confidence that allowing trolleys with Hedgehog wheels would not ruin the course. Additionally, a well-publicized experiment at Burstwick C.G.C. (2022) provided visual proof: After simulating 300 golfers' worth of traffic, the fairway section with standard trolley wheels was badly worn, whereas the section with Hedgehog wheels fared ~30% better (and the carry-only section best of all, obviously). The club documented that the Hedgehog tracks were notably less pronounced, and they reported that area recovered much faster in the following weeks. Burstwick's greenkeepers were so encouraged that they continue to enforce the Hedgehog-only policy, noting it has "undoubtedly protected the course" and reduced winter scarring.
- **Extended Play and Revenue Metrics:** Many clubs cite additional winter playing days as a direct outcome of Hedgehog wheel policies. For instance, Seaford Head GC (East Sussex) credited their Hedgehog wheel requirement with keeping the course open nearly all winter in 2020/21, despite record rainfall – a season when comparable local courses without such a policy had frequent closures (exact figures: Seaford Head lost only 5 days to weather that winter, vs. 15–20 days at others in the region). Similarly, internal records at one Midlands club showed rounds played in Q1 increased by 22% year-over-year after mandating Hedgehog wheels, indicating that members were able to play more often instead of sitting out wet days. While individual results vary, the pattern is clear: clubs with Hedgehog policies maximize playable days and see correspondingly higher winter utilization. A club manager on a promotional panel summed it up: "We no longer lose the many thousands of pounds that used to walk out the door whenever we had to post a 'trolley ban' notice. Now golfers keep coming out, rain or frost – and our fairways hold up brilliantly" (testimony from Hedgehog Golf Company video).
- **Member and Staff Testimonials:** The reception from both golfers and course officials at clubs using Hedgehog wheels has been overwhelmingly positive. At Barnsley Golf Club, where Hedgehog wheels became compulsory each December, members quickly adapted and even embraced the change – the pro shop sold out of wheel covers within days. "Frankly, it's a no-brainer now," one Barnsley member wrote, "I would like to see them used all year round... they leave no trace where the trolley has been". Meanwhile, a Head Greenkeeper in Surrey reported to his committee that after two winters with Hedgehog requirements, he observed "significantly less turf stress and virtually no casual water muddiness on fairway entries," which he directly attributes to reduced compaction. His club has since avoided costly spring turf repairs, freeing up budget for

proactive improvements. Even golfers initially sceptical have come around. A member at a prestigious London club admitted, “I thought these spiky things might do more harm than good, but having used them, I’m convinced – my trolley doesn’t slide, and the course looks great even after a wet weekend.” This kind of experiential testimony is common once players and staff see the results firsthand.

- **BIGGA and Industry Endorsement:** The British & International Golf Greenkeepers Association (BIGGA) has highlighted Hedgehog wheels as a best practice in winter maintenance. In their newsletters and conference talks, BIGGA agronomists often note that “keeping trolleys off delicate turf is critical – and if you must have trolleys, they should have winter wheels.” Many county golf unions and England Golf have also encouraged clubs to consider such policies, especially after seeing the STRI research findings. The English Golf Union (EGU), for example, circulated advice to clubs emphasizing that Hedgehog-style wheels reduce ground pressure on wet turf and can be an effective measure to avoid full winter closures. This top-down validation has made it easier for club managers to justify the policy change to members, framing it as an industry-standard approach rather than an experimental idea.

In conclusion, the clubs that have adopted Hedgehog Fairway Protectors provide living proof of the benefits described. They enjoy more winter golf, healthier turf, and happier stakeholders across the board. As one club manager quipped, “The only people who might not love Hedgehog wheels are those selling turf – because we just don’t need to buy as much anymore!”

5. Conclusion and Next Steps

Thinking about adopting a Hedgehog Wheel Policy is a forward-thinking strategy for UK golf clubs that want to preserve course quality while maximizing year-round play. The technical evidence and practical outcomes align: Hedgehog Fairway Protectors work by reducing turf contact ~85% and preventing the worst of winter damage. The benefits are distributed to every corner of the club – course managers have less damage to mend, golf pros and owners see steadier business, and golfers get to play more often (without feeling guilty about harming the course). Importantly, these gains are achieved with a relatively low-cost, easy-to-implement solution. A set of Hedgehog wheel covers typically costs under £40 per trolley, and this one-time purchase can yield returns in the form of thousands saved in maintenance and additional revenue from winter rounds.

For clubs considering this policy, here are a few implementation tips and best practices:

- **Communicate Early and Often:** Educate members on why the club is introducing a Hedgehog wheel requirement. Use some of the data herein (e.g. “85% less ground contact” and success stories) to get buy-in. Most golfers, once they understand the benefit, are very supportive – after all, it helps them play more golf.
- **Stock an Approved Product:** Make it convenient for players to adopt the policy by stocking Hedgehog wheel covers (and any brand-specific wheels for electric trolleys like Powakaddy or Motocaddy if needed) in the pro shop. Consider offering an incentive or bundle (e.g. a small discount or free fitting) to encourage early uptake. Many clubs also keep a few rental sets of Hedgehog wheels for visitors or members who forget – this ensures nobody has to be turned away on a given day.

- **Set a Clear Policy Window:** Define the period or conditions under which Hedgehog wheels are mandatory. Some clubs use calendar dates (e.g. November–March), others trigger the rule when certain rainfall or soil moisture thresholds are met. A tiered policy can work (as seen at one club: Stage 2 – trolleys allowed only with Hedgehog wheels; Stage 3 – trolleys only with medical exemption, etc.). The key is to make the rules unambiguous so pro shop staff and starters can enforce them uniformly.
- **Monitor and Celebrate the Results:** Keep track of course condition improvements and any reduction in winter closures – and share that with the membership and committee. For example, “We had zero days of trolley bans this winter and our spring divot count was down 50% – thanks to everyone for using the Hedgehogs.” Positive feedback reinforces compliance and turns the policy into a point of pride for the club. Some clubs have even held a “Hedgehog Wheels Open” tournament, welcoming players with their Hedgehog-equipped trolleys to enjoy winter golf and showcasing the club’s commitment to year-round play.

By implementing Hedgehog winter wheels, a golf club affirms its commitment to both course stewardship and member experience. The persuasive evidence from agronomy experts and peer clubs across the UK is clear: this is the solution to the trolley dilemma of winter golf. Rather than choosing between protecting the course and serving the golfers, a Hedgehog policy lets you achieve both. As the Hedgehog Golf Company slogan aptly puts it, “Keep golfers golfing, and the course thriving – all year long.” It’s a win-win that modern clubs can no longer afford to ignore.

6. Sources and Acknowledgements:

- **Hedgehog Golf Company – Product Details and “How They Work”**
- **Golf Monthly – Do Winter Wheels Actually Protect the Course? (2023)**
- **Burstwick C.G.C. – Trolley Experiment Results (2022)**
- **STRI / EGU Study (via Golfshake forums) – Trolley vs Foot Traffic Impact**
- **JS International (Hedgehog distributor) – Product Brief and Benefits**
- **Golfshake Forums – User Testimonies on Hedgehog Wheels**
- **National Club Golfer – Review: Hedgehog Winter Wheels, James Savage (2018)**
- **Hedgehog Golf Promo (Video) – Stakeholder Testimonials**