



The Jockey Club – Natural Capital

The Racing Foundation Green Award

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Objectives



With significant areas of land, The Jockey Club is well placed to set an example in terms of maximising natural capital to create positive environmental and social impact and to improve grassland sequestration, biodiversity, soil health, water protection and public engagement. However, to do this effectively it is essential to measure and quantify the current state, as well as the ongoing positive impact. This compliments the ongoing work to maximise the potential of the land through allotments and gardens growing produce which is used in dishes served on site.

To be able to do this with confidence and accuracy, The Jockey Club has collaborated with natural capital specialists, Trinity AgTech and natural capital consultants, YourPact, to measure natural capital on five Jockey Club sites. The pilot project (funded by the prize money received from The Racing Foundation through the 2022 RCA Green Award) is the first of its kind in British racing, using leading software platform, Sandy, to measure land-based carbon emissions, sequestration and biodiversity. The partnership marks a significant milestone in the move towards holistic and data-led action within the industry.

The pilot project focused on five entities; 3 x racecourses, 1 x gallops and 1 x National Stud. The sites included were selected to provide valuable case studies to allow for an overview of carbon sequestration, biodiversity quality and highlight future project opportunities.

The overall goal of the project is to use the most comprehensive software platform available to create baseline results for carbon emissions, sequestration and biodiversity relating to green areas. Following this, the platform's scenario planner can be used to demonstrate measurable improvements in sequestration and biodiversity by suggesting undertaking projects such as habitat creation.

Once a clear improvement is identified, the projects can be carried out in practice on each site, with the new data added to the Sandy software platform. From this carbon insets can be generated and biodiversity enhancements quantified, demonstrating measured improvements and an increase in the value of natural capital.

Delivery



The primary stakeholders involved in the project are: The Jockey Club and its employees, YourPact Natural Capital Consultants, Triinity AgTech and their software platform Sandy and The Racing Foundation who helped fund the project.

The project was undertaken in clear phases so that all challenges were addressed and overcome prior to moving onto the next phase.

The first step on the project action flow was an in-person and virtual overview of the project, the data required and how to complete data spreadsheets for all Jockey Club employees involved in collating the required data. YourPact provided a clear data set requirement for each racecourse/Jockey Club entity:

TOP LEVEL DATA; Area of each entity (ha), Confirmation of land borders for each entity, Define 'field' criteria for each entity – such as racetrack, inner ring, amenity lawn, unmanaged grass, Area of each field (minus any artificial services/infrastructure), Area of any additional natural assets such as hedgerows, woodland, meadows

ANNUAL MANAGEMENT DATA; Sward composition of grassland areas, Grazing & cutting frequency and dates, Chemical application – products, frequency and dates, Fertiliser application - products, frequency and dates, Fuel usage for green land management

Following this, YourPact used the Land App and OS MasterMap data to create land use maps for all five entities to allocate land uses to each parcel of land on the five pilot sites. These were checked and confirmed by Jockey Club personnel to ensure that the maps matched on-site data. Once approved, Jockey Club personnel began to input grassland management data for 2023 into specific spreadsheets, which have been designed for mass data uploading into Sandy. This included sward composition, cutting regime and input applications plus additional required information to create accurate results.

Results



Once the data was complete, The Jockey Club team returned the data to YourPact who thoroughly audited/conditioned it. Once the data was conditioned and approved, Trinity AgTech uploaded the data into Sandy to produce results for carbon emissions, carbon sequestration and biodiversity scores for each site. The Sandy platform is innovative in its approach to natural capital and therefore not only does it use a robust methodology to calculate results but it also includes features which allows users to assess the impact of potential projects. Therefore the next phase of the project provided a case study for The Jockey Club. This case study identified how, by undertaking activities on the Market Rasen racecourse site, emissions could be reduced significantly, sequestration could be increased and biodiversity enhanced. A report was then created which included:

Positives; The engagement and understanding shown by the personnel involved, Land use maps created for each pilot site, Quality of software platform used

Challenges; The limited amount of data available retrospectively, The extended timescale of the project due to the creation of the land maps

Key Recommendations; Create a uniform system of capturing data throughout the year, Invest in the resources required to upscale the project, Ensure each entity is mapped either digitally or manually, Assess options for diversifying habitat portfolio of sites

The total results demonstrate a net positive position of 148.97T; NSL (31.03)T, Newmarket Gallops 61.07T, Market Rasen Racecourse: 57.67T, Newmarket Racecourses 61.26T, Haydock Park 48.26T, all sites received a 5* biodiversity score with NSL achieving a 5** biodiversity score

Supporting Information (max 1 slide)

Opportunities Identified; Reduce fossil fuel usage for management practices by converting to alternative fuel options, Renew and renovate the condition of grassland areas, increasing the diversity of species, Add to habitat diversity with additional hedgerows, trees etc. where appropriate, Utilise Trinity's natural capital valuation module to understand existing and future asset position

The report uses Market Rasen as an example to demonstrate how a net positive position can be reversed into a net negative position, creating the opportunity to generate carbon credits for inseting. In this example, 1000m of extra hedgerow is planted, three areas of the site are replaced with a mixed legume and herb grass ley and all fuel is switched to biodiesel. The scenario optimisation feature in Sandy shows that this would impact the results by taking Market Rasen from approx. 57T positive to nearly 59T negative. These recommended actions would also ensure the racecourse meets the highest criteria for biodiversity, achieving a 5** rating. The project results demonstrate to the industry how much potential there is for using nature-led projects (reseeding perennial ryegrass areas with diverse species) to capture carbon and increase biodiversity across the UK. This is an ideal scenario for the sport with a clear connection between nature/outdoors and racing and with the additional co-benefits of community engagement, aesthetics and health improvements.

The results provide clear understanding of quantifiable improvements through nature-based solutions which can be used to demonstrate a positive impact on the value of natural capital in the industry. The projects can also produce visible improvements to the habitats surrounding sporting sites with visual results clearly identifiable, helping The Jockey Club to act on one of its four pillars; "Racing has a positive impact on the world around us". The project also demonstrates how there are cost-effective solutions available for organisations which can be implemented at all levels of sport – empowering grassroot organisations and providing realisable actions for professional bodies. This not only brings different sports together but also the varying levels of the pyramid within individual sports too. Additionally, as reseeding projects are extremely flexible in terms of shape, size and content, they are the perfect for implementing at scale across the UK.

The project sets a precedent for the rest of the sector in terms of using a fit-for-purpose software platform, which has been developed to create methodologies based on the latest science, peer review and primary data. Measuring grassland sequestration requires the consideration of specific and nuanced factors/variables and therefore it is key that any carbon calculations for land-based sequestration is measured through a credible mechanism. The use of a software platform, which also provides third party verification and auditing support, ensures that stakeholders can see that the racing industry is upholding a high degree of integrity when it comes to environmental action.