

International Turfgrass Research Initiative

A Cooperative Effort by STERF, The R&A, and USGA



2024 Request for Proposals

GUIDELINES

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GUIDELINES - 2024 Request for Proposals



Purpose

The International Turfgrass Research Initiative is a cooperative effort to fund globally relevant research that will advance scientific knowledge and turfgrass management. Projects that advance the research priorities described below will be evaluated and funded through a two-step process beginning with pre-proposals. The focus is on applied research, and proposals that advance basic research, such as breeding or molecular biology, will not be considered. Approximately 10 full proposals will be invited for consideration for funding from which two to three proposals are likely to be selected.

Research Priorities

1. Integrated Pest Management: Integrated pest management is critical in turfgrass management around the globe as it ensures sustainable practices by minimizing pesticide use, preserving ecosystem balance, and reducing environmental impact. Research in this category may evaluate or integrate various control methods, inclu-

ding cultural, biological, and chemical approaches with a goal to enhance resilience against pests while optimizing cost-effective management strategies. Research topics should be adaptable to diverse climates and regulatory environments for fostering environmentally responsible turfgrass maintenance worldwide. Example research topics include (in no specific order):

- Biology and management of dollar spot and other pervasive pests, including the effects of alternative management strategies on disease development
- Global survey and benchmarking of integrated turfgrass management practices
- Global data collection and curation to advance pest forecasting with machine-learning models
- Exploiting new technologies and sensors to better predict injury from abiotic stresses
- Determination of economically important levels of turfgrass quality and damage from pests and abiotic stresses
- Assessment of less intensive management to determine the point of diminishing returns for common practices, which might not be directly related to pest management (e.g., aggressive cultivation and sand topdressing of putting greens)

2. Water Conservation: Water conservation research in turfgrass management globally is crucial to mitigate challenges from water scarcity by optimizing irrigation practices, reducing water use, and promoting drought-tolerant turfgrass species. Such research enhances environmental sustainability by minimizing water wastage, preserving freshwater resources, and adapting turfgrass systems to changing climatic conditions, ensuring resilient and sustainable landscapes worldwide. Example research topics include (in no specific order):

- Decision support with sensors and modeling
- Turfgrass durability under longer-term drought and traffic
- Subsurface and alternative irrigation
- Global assessment of irrigation water quality and use
- Use and management of non-potable and alternative water sources (including treated wastewater and brackish water)

3. Biodiversity and Landscape Perspective: Biodiversity research in turfgrass management globally is essential to foster ecological balance by understanding and preserving diverse ecosystems within turfgrass landscapes. It promotes resilient turfgrass systems by supporting beneficial organisms that contribute to natural pest control, soil health, and overall ecosystem stability. Such research enables the development of practices that prioritize biodiversity, ensuring sustainable and environmentally friendly turfgrass management practices worldwide. Example research topics include (in no specific order):

- Best practices for defining, monitoring, and comparing biodiversity on golf courses and other turfgrass land uses
- Turfgrass management to improve biodiversity from a landscape perspective
- Production and management of turfgrass materials that incorporate pollinator plants

4. Climate (Carbon Balances): A better understanding of the carbon balance in turfgrass management globally is crucial for understanding the impact of turfgrass on global greenhouse gas emissions and carbon sequestration. It aids in developing practices that reduce the carbon

footprint of turfgrass systems, contributing to mitigating climate change effects. By optimizing turfgrass management techniques to enhance soil carbon sequestration and minimize emissions, this research supports sustainable and environmentally responsible land management practices worldwide. Example research topics include (in no specific order):

- Global assessment of carbon sequestration potential and overall carbon balances associated with turfgrass management
- In-depth assessment or case study of the carbon balances of green spaces and the relative contributions of various plant materials, turfgrass management strategies and expectations, and other landscape features or facility operations (potentially including comparisons among management practices or land uses)

Research projects should be designed to advance the above research priorities with international collaboration, and proposals will be partially evaluated on their multinational reach (see proposal review criteria below). Proposals should be written in **English**.

Proposal Guidelines and Decision Timeframe

Pre-Proposal Stage

Pre-proposals should be submitted through our program website: <https://greensectionresearch.smapply.org/> by **15 August 2024**. *Select the International Turfgrass Research Initiative at the bottom of the page.*

An account will have to be created for the lead investigator of the proposal and it is acceptable for a university grants officer to submit the proposal on an investigator's behalf.

- **Formatting:** Pre-proposals should be no more than three pages and formatted with single-line spacing, one-inch margins and minimum font size of 12 points.
- **Metadata:** Include a project title, principal investigator(s) names(s) and contact information, including affiliation, country, address, telephone number, and email address. Indicate a lead investigator as the point of contact for the proposal.

- **Project description:** Use remaining space to summarize the project including: the rationale of the research question and objectives, scope of the problem geographically and temporarily, planned international cooperation, brief research methodology, brief timeline, expected results, the expected benefits of the project for the global turfgrass industry, and a summary of a three-year project budget including any matching funding (note: match funding is not required, but is highly encouraged). See additional guidance for creating budgets in the "Project description" section for full proposals below.

Full Proposal Stage

Pre-proposals will be evaluated in October 2024 and all investigators will receive a decision on their pre-proposal by November 2024. Investigators from approximately 10 pre-proposals will be invited to submit full proposals.

Full proposals should be submitted through our program website; <https://greensectionresearch.smapply.org/> by **26 February 2025**. *Select the International Turfgrass Research Initiative at the bottom of the page.*

An account will have to be created for the lead investigator of the proposal and it is acceptable for a university grants officer to submit the proposal on an investigator's behalf.

- **Formatting:** Full proposals should be no more than **10 pages** and should otherwise match pre-proposal formatting with single-line spacing, one-inch margins and minimum font size of 12 points.
- **Metadata:** Include a project title, principal investigator(s) names(s) and contact information, including affiliation, country, address, telephone number, and email address. Indicate a lead investigator as the point of contact for the proposal.
- **Executive summary:** After metadata, use the remainder of the first page of the proposal to summarize the rational and overall goal of the project, the benefits of the project for the global turfgrass industry, and any specific deliverables beyond publications.
- **Project description:** Completely describe the project on the nine remaining pages.
 - Rational of the research question, including a brief modern literature review
 - Scope of the problem geographically and temporarily
 - Explicit response to reviewer comments from the pre-proposal stage
 - Objectives of the project, research methodology, available research facilities, reasonably expected results, and a brief timeline
 - A dissemination plan (using the provided template) for project results that may include

any and all media, or the development of decision-support tools, but must minimally include a plan to publish results in a peer-reviewed journal and a strategy to communicate results with practitioners both during and after the project.

- A brief description of the international research team and plans for successful cooperation
- A budget table and brief narrative, including any matching funding (note: match funding is not required, but is highly encouraged)
 - *Examples of permissible expenses include graduate student support, research staff salaries, reasonable travel and expendable expenses, and reasonable principal investigator salary support.*
 - *Capital expenditures, construction costs, and patenting and licensing costs are not permissible.*
 - *Funding will not support administrative costs exceeding **25%** of the total direct costs of the project.*
 - *Keep in mind that **€250,000 per year are available to fund research in 2026, 2027, and 2028.** This €750,000, three-year total is expected to be allocated over two to three cooperative projects.*
- A brief, one-paragraph biography of investigators
- A brief, one-paragraph description of an established advisory board for the project that should include scientists and experienced practitioners or consultants.

Investigators will receive a final decision prior to ITRC 2025 in July. Selected projects will be announced at the conference.

<p>May 2024</p> <p>Circulate Phase I RFP</p>	<p>Aug. 2024</p> <p>Phase I Proposal Due</p>	<p>Oct. 2024</p> <p>Phase I Proposal Review Meeting</p>	<p>Nov. 2024</p> <p>Phase I Decisions and Phase 2 RFP Circulation</p>
<p>Feb. 2025</p> <p>Phase 2 Proposals Due</p>	<p>April 2025</p> <p>Phase 2 Proposal Review Meeting</p>	<p>July 2025</p> <p>Announce Decisions at ITRC 2025</p>	<p>2026-2028</p> <p>Projects Conducted</p>

Proposal Review Criteria

Both pre- and full proposals will be prioritized based on the review of a committee of 10-12 scientists and practical turfgrass industry representatives. The committee will score and comment on proposals considering the potential to advance the previously listed research priorities, scientific validity and likelihood for success, plans for stakeholder engagement and education, budget, and multinational reach, according to the rubric below.

CRITERIA	POINTS			
	0	1-2	3-4	5
Relevance and Practicality	The project does not address RFP research priorities and is not practical	The project indirectly advances RFP priorities, but has limited practical merit	The project should advance RFP priorities and has identified practical merit	The project is perfectly aligned with, and will advance, RFP priorities with clear opportunities for practical application
Background and Objectives	The project does not account for previous research	The project may build on established knowledge, but some previous research is not considered	The project acknowledges appropriate previous research, and is likely to advance knowledge	The project is sure to build on established knowledge
Methodology	Methods are not explained	Methods are poorly explained or inappropriate	Methods are likely to encourage a successful project	Methods are modern and well-suited for the project
Project Management	The research team, facilities, and advisory board are insufficient for the project to succeed	Either the research team, facilities, or advisory board are likely to limit the success of the project	The research team, facilities, and advisory board are likely to encourage a successful project	The research team, facilities, and advisory board are well-suited for the project
Dissemination Plan	There are no explicit plans for dissemination beyond baseline requirements	The education plan largely delays dissemination until the project ends or is otherwise unthoughtful	The dissemination plan will effectively share outcomes with practitioners, but there are no case studies to demonstrate results or dissemination is delayed until the conclusion of the project	The dissemination plan is likely to foster adoption by sharing results with multiple audiences and in multiple ways, including real-world case studies, throughout the project
Budget	A budget is not included	The budget is unreasonably ambiguous or inappropriate, or does not include match funding	A reasonable budget is present, but is either somewhat ambiguous, costs are somewhat inappropriate, or it includes only a small amount of match funding	The budget includes costs that are well-described, appropriate for the research and dissemination plan, and significant match funding is provided
Multinational Reach	The project will occur in single country	The project will occur in two or more proximate countries	The project will occur in two or more distant countries	The project reasonably spans multiple continents

Reporting Requirements

In addition to the formal dissemination plan from the project proposal, investigators will be required to submit annual progress reports (using provided templates) to the funders of the initiative for each year of funding, as well as a final report that completely summarizes the project.

Research Agreements and Proprietary Rights

A research agreement will be required before selected projects can begin that will outline the responsibilities of researchers, their institutions, and STERF, The R&A, and USGA. The policy for this RFP is that all technology, inventions, and writings developed or first made in the performance of the research project and any patents or copyrights therein shall become the property of the university or research institution. As noted in budget guidelines above, patenting, licensing, etc. costs are not permissible for funding.

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