

Scientists identify 100 important questions facing plant science

March 16 2023



Credit: Pixabay/CC0 Public Domain

An international panel of scientists have identified 100 of the most important questions facing plant science. The international initiative has identified key research priorities and highlights the importance of

diversity, collaboration, and funding for plant research to tackle climate change, the biodiversity crisis and sustainable food production.

What are the key research priorities that will help tackle the global challenges of climate change, the biodiversity crises and feed a growing population in a sustainable way? Ten years after these priorities were first debated and summarized by a panel of scientists and published in *New Phytologist*, the panel reflects on the changes to plant [science](#) and the progress made to address these research areas, published on March 16 as a Letter from E. R. Larson and colleagues in *New Phytologist*.

To re-evaluate research priorities, a new panel was formed in 2022 to provide an international perspective on the important areas for plant science research. This project, led by Prof. Claire Grierson (University of Bristol, U.K.), is a novel piece of research that gathered over 600 questions about plant science, from botanically curious members of the public to scientific and industrial leaders around the world. A team of 20 plant scientists from 15 nations were assembled to identify 100 of the most important questions facing plant science.

These 100 questions are published on March 16 in a Viewpoint authored by E. M. Armstrong and colleagues in *New Phytologist* and highlight how climate change, biodiversity loss, and interdisciplinary and international collaborations are critical global priorities across diverse plant science research fields. The study demonstrates how critically important plant scientists believe the fight against climate change is, highlights global disparities in science funding and showcases a diverse range of important future research topics.

This inclusive study demonstrates how a global community of plant scientists, with a wide range of expertise, view the strategic priorities for plant research and offers insight into how different areas of research are important to different global regions. The study emphasizes how an

inclusive, international exercise can be used to identify diverse research questions. As panelist Dr. Shyam Phartyal (Nalanda University, India) said, "One of the most significant steps of this study is maintaining a high level of diversity—not only in question gathering but also in the selection of panelists from the Global South."

Another panelist, Dr. Ida Wilson (Stellenbosch University, South Africa), said, "My work is solution driven and needs to directly address the challenges that farmers in South Africa and Africa face. As part of the Africa panel, I am also very proud of the African inputs, and grateful for the opportunity to have our voices heard. I mentor young scientists too, and the excitement the publication has generated is tangible."

Prof. Claire Grierson said, "These two papers form a unique and valuable resource for researchers and newcomers to plant science, including collaborators on interdisciplinary projects, students and early career researchers, and for policy development."

Together, these two papers provide an excellent introduction to how [plant science](#) is developing and the significance, range and depth of research that needs to be addressed.

More information: Larson, E.R., et al. (2023) One hundred important questions for plant science—reflecting on a decade of plant research, *New Phytologist* (2023). [DOI: 10.1111/nph.18663](https://doi.org/10.1111/nph.18663)

Armstrong, E.M., et al. (2023) One hundred important questions facing plant science: an international perspective. *New Phytologist*. [DOI: 10.1111/nph.18771](https://doi.org/10.1111/nph.18771)

Provided by The New Phytologist Trust

Citation: Scientists identify 100 important questions facing plant science (2023, March 16)
retrieved 5 July 2024 from <https://phys.org/news/2023-03-scientists-important-science.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.