

Preface

AgriVoltaics World Conference 2025

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The sixth AgriVoltaics World Conference, held in Freiburg, Germany, from July 1–3, 2025, marked a new milestone for the global agrivoltaics community. With more than 500 participants (around 430 on site and 70 online), it was the largest conference in the history of the series. Researchers, farmers, industry leaders, and policymakers from across Europe, North America, Asia, and beyond gathered to advance agrivoltaics as a scientifically robust and practically viable approach to integrated food and energy systems.

Under the motto “Challenging Agrivoltaics,” the conference intentionally fostered critical reflection. Beyond highlighting technological progress, discussions addressed economic feasibility, regulatory frameworks, environmental performance, and social acceptance. By openly engaging with limitations and trade-offs, the conference aimed to strengthen the foundation for responsible scaling.

Following a record-breaking call for abstracts with more than 240 submissions, selected contributions were organized into thematic tracks covering business models, agricultural science, PV technology and system design, environmental interactions, and socio-economic aspects. Plenary sessions, parallel technical sessions, and interactive roundtables enabled interdisciplinary exchange across research and practice.

Freiburg and the region of Baden-Württemberg—recognized as a leading reference region for agrivoltaics, particularly in permanent crops such as fruit and viticulture—provided a fitting backdrop. Technical tours and extended site visits connected international participants directly with research facilities, commercial installations, and farmer-led projects.

Beyond the core conference, the event expanded into a twelve-day program that included technical tours, extended technical tours across Germany, and a five-day international Summer School. These formats deepened scientific engagement, strengthened collaboration between research and practice, and enhanced the sustainability of international travel by maximizing the value of in-person exchange.

The proceedings presented here embody the spirit of AgriVoltaics2025. More than 40 full papers underwent a double-blind peer-review process and document the latest advances in agrivoltaics research and practice. Together, they capture a field that is rapidly evolving—technically sophisticated, increasingly interdisciplinary, and deeply connected to real-world implementation challenges.

We hope this volume contributes to continued scientific rigor, international collaboration, and the responsible global deployment of agrivoltaics.

References

- [1] <https://www.agrivoltaics-conference.org/>