

BASF Agricultural Solutions and IRRI extend partnership to further advance sustainable rice cultivation

18 September 2026 | News

First-phase research confirmed practical pathways to reduce methane emissions in rice production



BASF Agricultural Solutions and the International Rice Research Institute (IRRI) have extended their scientific collaboration named “Optimizing Management for Reduction of Greenhouse Gases in Rice” (OPTIMA Rice) to further advance sustainable rice cultivation, targeting reductions of methane and other greenhouse gases. Launched in 2024, the project aims to develop solutions that are practical, economically viable for farmers, and supported by evidence from the field. The multi-year collaboration combines BASF’s expertise in bringing sustainable agricultural practices into real-world farming systems with IRRI’s world-leading rice research.

The first phase of OPTIMA Rice showed that letting rice paddies dry out in controlled intervals, known as Alternate Wetting and Drying, enabled through Direct Seeded Rice, can significantly reduce methane emissions and lower water use without compromising yields (see Global Carbon Field Trial Report 2025). This is especially important for farmers who are considering participating in carbon farming programs, as they would need to adjust how they irrigate rice paddies. In addition, improved straw management can further lower methane emissions.

In the next phase, BASF and IRRI will shift their focus to soil health – particularly the role of carbon and nitrogen in the soil. Complementing emission reduction, climate-smart farming must preserve soil health to ensure long-term productivity. The project reflects the need to better understand how changes in water use affect soils over time. Together, the partners will also explore further approaches, such as the use of biochar, which can help store carbon in the soil while improving its fertility and structure.

“Climate-smart rice systems must work on the farm, not just on paper,” said Marko Grozdanovic, Senior Vice President, Global Strategic Marketing & Sustainability, BASF Agricultural Solutions. “We know that adopting new approaches is not always easy for farmers. It takes trust, support, and proven solutions. By expanding our collaboration with IRRI, we are strengthening the scientific foundation needed to help farmers implement climate-smart rice practices with confidence, while deepening our focus on soils.”

“Rice is a staple food for billions of people and transforming how it is grown is critical for both climate action and sustainable livelihoods for farmers,” said Yvonne Pinto, Director General of IRRI. “Through our continued collaboration with BASF, we are combining scientific rigor with tangible solutions. High-quality evidence and trusted collaborations are key to supporting farmers, protecting the environment and strengthening the global food system.”

While OPTIMA Rice is rooted in field trials in the Philippines, insights from the collaboration are designed to be relevant across major rice-growing regions globally – be it markets like China, India, Japan, Brazil or Italy.

Â