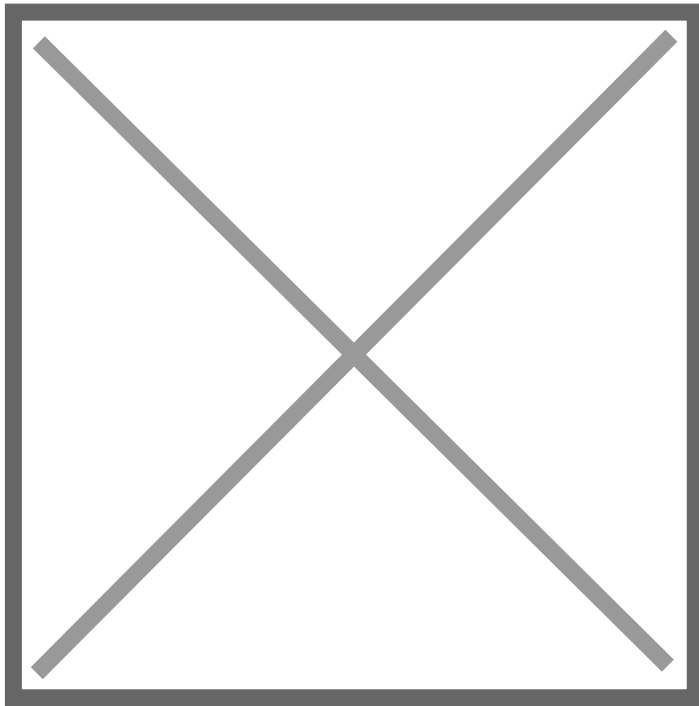


Bayer introduces agricultural system for direct-seeded rice with unique potential

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On UN World Food Day, Bayer announced the introduction of its direct-seeded rice (DSR) system at the 6th International Rice Congress in Manila, The Philippines. Moving from transplanted puddled rice cultivation to direct-seeded rice can help farmers to reduce water use by up to 40 %, greenhouse gas emissions (GHG) by up to 45% and reduce farmers's dependence on scarce and costly manual labor by up to 50 %. The introduction of the DSR system is fully in line with Bayer's recently announced "approach" to regenerative agriculture which will enable farmers to produce more while restoring more.

Bayer plans to bring direct-seeded rice to one million hectares, supporting two million early adopter-smallholder farmers and their families in India by 2030 and expand to the Philippines starting 2024 / Potential to transform India's rice production: 75% of total rice cultivation area expected to shift to direct-seeded rice practices by 2040 / Benefits of direct-seeded rice in comparison to transplanted puddled rice cultivation: Less water use (up to minus 40%), reduced emissions of greenhouse gases (up to minus 45%), removal of reliance on manual labor availability (up to minus 50%).

Driven by these advantages, DSR has the potential to be transformational with 75 % of total rice fields in India expected to switch to this cultivation method by 2040, in comparison to roughly 11 % today. By 2030, Bayer plans to bring the DSR system to one million hectares in India, supporting over two million early-adopter smallholder rice farmers through its DirectAcres program.

Already underway, DirectAcres has seen considerable success with 99 % of Indian farmers achieving successful plant establishment and 75 % a higher return on investment compared to rice grown using the conventional transplanted method. Bayer plans therefore to introduce DirectAcres in other rice growing countries in Asia Pacific, starting with the Philippines in 2024.

A system combining seeds, crop protection and digital solutions

Bayer is designing climate-resilient rice hybrids with higher yields that can be sown directly in the soil and bred specifically for the different farm environments. By removing the standing water, machinery can perform much of the otherwise time consuming and arduous, manual farming practices. The reduced dependence on excess water â?? used partly to prevent weeds â?? means access to crop protection solutions will be key to the transformation. To address this, Bayer is developing new crop protection solutions including a new rice herbicide to ensure a successful and durable weed management program for the direct-seeded rice system.

Huge potential to reduce environmental impact

DSR has the potential to change this by reducing the water use and the GHG emissions created by methane emitting bacteria that thrive in the standing water. The reduction of on-farm manual labor â?? through mechanization â?? addresses the issue of continuous labor shortage in the Indian countryside due to rapid urbanization.

Ecosystem of experts to transform rice cultivation at scale

The transformation of rice production is an ambition that is vast in size, complex and will require a concerted and collaborative effort by the entire industry, food chain and beyond in order to advance adoption and bring to scale. To this end, Bayer is working alongside the International Rice Research Institute (IRRI) and has participated in the Direct Seeded Rice Consortium (DSRC) for many years. Just last year at COP27, Bayer announced together with IRRI and the U.S. Agency for International Development (USAID) a partnership to improve the quality of life of smallholder rice farmers through the introduction, on-farm testing and scaling of improved, climate-smart rice varieties and agronomic practices.