



Bayer AG
Communications
51368 Leverkusen
Germany
Phone +49 214 30-1
www.bayer.com/en/media

News Release

75 percent of farmers are open to innovation to cope with climate change, global research reveals

- Weather volatility, economic uncertainty, and rising political pressures are challenging farmers worldwide
 - Already over 90 percent use one or more regenerative agricultural practices to improve soil health and increase yields
 - Higher yield potential is also driving adoption of digital farming, with two thirds using digital tools already and the same amount wanting to learn more about AI
-

Monheim, September 26, 2024 – 75 percent of farmers are already impacted by climate change or worried about its impacts, and 71 percent of them report reduced yields as a major concern. 6 out of 10 have already experienced significant revenue loss due to weather events out of the norm recently. As part of the solution, farmers count on innovation: 75 percent are open to implementing new technologies to better cope with climate change. Desire for better yields, resilient farms, and protected livelihoods are driving interest and adoption of more regenerative and technological approaches to farming.

These are some of the key findings from the 2024 *Farmer Voice* survey, a study among 2,000 farmers across Australia, Brazil, China, Germany, India, Kenya, Ukraine, and the United States, conducted by global market research firm Kynetec on behalf of Bayer. It reveals the challenges, aspirations, and needs of farmers in times of climate change, digitalization, and economic and political volatility.

Rodrigo Santos, Member of the Board of Management of Bayer AG and President of the Crop Science Division, said: “The Farmer Voice study underlines that farmers continue to face accelerating economic and environmental challenges in their important work –

providing food to the world. They want innovation to help them do their jobs better, and an environment in which they can increasingly turn towards regenerative practices making food systems more resilient – to the benefit of the planet, food security, and their livelihoods alike.”

Farmers’ most prevalent current challenges are driven by volatility and uncertainty. With regard to the next 3 years, more than a third reported weather volatility or extreme weather events (37%) and price/income volatility (36%) among their top-3 challenges. While these remained stable compared to 2023 findings, this year’s survey revealed a notable increase of political or regulatory decisions as a key concern, with 29 percent of farmers citing that as a top-3 challenge, double the amount compared to last year.

This corresponds with the answers they gave when asked what would most benefit their farm looking ahead. Access to innovations like crop protection (41%) as well as seeds and traits (36%) rank highly, but farmers also clearly indicated that regulatory and policy changes would benefit their farms in the future, with 36 percent ranking it as a top-3 benefit.

Farmers use digital technologies to tackle challenges and improve their businesses

One way to cope with the different kinds of hurdles and make farming more productive lies in digitalization. Nearly two thirds of farmers already use digital tools, and another 25 percent plan to in the future. Farmers around the world are using digital tools for a range of diverse applications like forecasting, optimizing farm decisions, or precision application. Principal factors driving digital adoption are economic: 88 percent see improved crop yields as a motivation to use digital applications, 85 percent cost savings, and 84 percent improved crop quality. Ensuring the longer-term sustainability of farming practices ranks a close fourth place (79%), highlighting farmers’ dedication to land stewardship.

But there is a clear digital divide between countries with a higher share of smallholder farmers compared to other markets. On average, globally 65 percent of farmers are using digital tools today, versus 49 percent in China, 42 percent in Kenya and only 8 percent in India. However, farmers in these countries plan to implement more digital tools in the future (China: 27%, Kenya: 42%, India: 85%). And with farmers’ openness towards digital technologies, there comes the willingness to learn, also about AI. While 72 percent have

little knowledge of current AI applications in agriculture, almost two thirds (62%) are interested to learn more.

Farmers harness regenerative practices to improve soil health and productivity

The role of sustainability in farmers' motivation to use digital tools underlines the importance of digitalization in the transition towards a future of regenerative agriculture. Similar to the motivations for digitalization, farmers see yield increase and improved productivity among the most important outcomes that regenerative agriculture needs to bring, next to soil health.

“One of the most pressing questions is how we can meet the demands of protecting the planet, producing enough food and making sure that farmers can make a living out of their operations,” said Rodrigo Santos. “One answer to this lies in the concept of regenerative agriculture. To us this means increasing food production, farm incomes and resilience in a changing climate while renewing nature. This evolution will require a joint effort of farmers, society and businesses.”

And farmers have already begun that journey. Over 90 percent of them are using at least one regenerative farming practice in their operations. The average farmer uses almost seven out of a selection of 17 common regenerative farming practices, showing that there is also still a way to go. The most broadly implemented practices are crop rotation, maintaining soil fertility by adding nutrients, and soil health monitoring.

Spotlight: Smallholder farmers in India and Indonesia are grappling with challenges but remain confident

In addition to the global *Farmer Voice* research, a separate survey was fielded with 1,450 smallholder farmers in India and Indonesia by Q&Q Research Insights, based on a similar questionnaire. The data from that study reveals that farmers in both countries are grappling with input costs, while also facing growing challenges posed by climate change. Among Indian smallholders, an increased threat of crop damage from pests, diseases, and resistance issues is most cited as a top-3 challenge (41%). For Indonesian smallholders, fertilizer costs ranked as their most prevalent challenge (73% top-3 mentions).

Farmers in both countries are employing some regenerative agricultural practices so far, with about 80 percent of respondents indicating that they use at least one regenerative practice on their farms. Indian farmers use on average between 4 and 5 such practices, while Indonesian farmers are using between 2 and 3 on average. In both countries, a lack of knowledge as well as financial resources are cited among the main barriers to adopt more regenerative practices, although there is strong interest to do so.

Despite all challenges smallholder farmers in India and Indonesia maintain a positive mindset. 89 percent in India and 91 percent in Indonesia consider farming to be a valuable career, taking pride in their role in ensuring food security.

Farmers believe their work is critical and want to be heard

This mindset of smallholder farmers in India and Indonesia is also reflected in the global main *Farmer Voice* survey. Despite the broad range of challenges facing farmers, they do see the future potential and value of what they do. Farmers see themselves as critical to ensuring food security (95%), and accordingly think they deserve more credit for their role (91%). They also consider the work they do to be important for society overall (94%). This results in two thirds of them being willing to encourage future generations to pursue farming as a career.

“Farmers want to be recognized for their contributions to society. We can all support their work, whether we work with farmers directly, develop suitable policies, or simply benefit from the fruits of their labor,” said Rodrigo Santos. “The voice of the farmer is an important one. With big challenges ahead we need to continue to listen and learn from them.”

The Farmer Voice survey, commissioned by Bayer, gathered insights from over 2,000 farmers across Australia, Brazil, China, Germany, India, Kenya, Ukraine, and the United States. Participants were randomly selected from each market, with the objective to obtain a representative sample covering accurately the diversity of crop farmer profiles. The survey was independently conducted by Kynetec, a global leader in data, analytics and insights in agriculture, animal health and nutrition. Respondents were unaware that the survey was being conducted on Bayer’s behalf so as to not bias their answers. The interviews were conducted between June and July 2024.

The Farmer Voice report is available at: go.bayer.com/FarmerVoice

About Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. In line with its mission, “Health for all, Hunger for none,” the company’s products and services are designed to help people and the planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. Bayer is committed to driving sustainable development and generating a positive impact with its businesses. At the same time, the Group aims to increase its earning power and create value through innovation and growth. The Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2023, the Group employed around 100,000 people and had sales of 47.6 billion euros. R&D expenses before special items amounted to 5.8 billion euros. For more information, go to www.bayer.com.

Contact for media inquiries:

Alexander Gutmann, phone +49 174 7306349

Email: alexander.gutmann@bayer.com

Find more information at www.bayer.com.

ag (2024-0131E)

Forward-Looking Statements

This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer’s public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.