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News Release

Crop Science Innovation Summit 2023:

Bayer sees more than doubling of accessible markets and potential to shape regenerative agriculture on more than 400 million acres

- Expectation to tap into more than 100 billion euros of value in accessible and ag-adjacent markets
- Unparalleled pipeline with estimated peak sales potential of more than 30 billion euros to promote regenerative agricultural practices and enable farmers to support both global food security and mitigation of climate change
- Includes transformative technologies like the Preceon Smart Corn System, next-generation insect and weed control traits in corn and soybeans, hybrid wheat, direct-seeded rice, a new first-of-its-kind herbicide molecule, as well as two new fungicides
- Industry-leading technologies such as alternatives to synthetic fertilizer, specialized cover crops and tools for carbon farming create upside potential and allow for productivity increases while preserving the soil and helping reduce the environmental impact of farming

New York, June 20, 2023 – Bayer today announced its Crop Science Division will capitalize on opportunities presented by the shift to regenerative agriculture to grow in adjacent markets in addition to its core business of seeds, traits, crop protection and digital. At its 2023 Innovation Summit, the company identified growth potential in segments like crop fertility, biologicals, biofuels, carbon farming, precision application services as well as digital platforms and marketplaces, all of which are serving the needs of agriculture. Overall, the company expects to access more than 100 billion euros in these adjacent markets annually, in effect doubling the division's potential market which today stands at more than 100 billion euro for the core portfolio alone. Importantly, by the

middle of the next decade, Bayer envisions shaping regenerative agriculture on more than 400 million acres, built on the foundation of its leading agriculture input solutions.

This endeavor, in combination with the division's leading seeds, traits and crop protection R&D pipeline were showcased in New York, featuring holistic system solutions the company is uniquely positioned to provide, fueling long-term growth of the company as it propels its ambitious growth plan to drive regenerative agriculture.

“We are envisioning an even broader role in agriculture. With the most powerful innovation engine in the industry and leading market positions, Bayer is uniquely set to provide the solutions that farmers need in light of food security and climate change,” said Rodrigo Santos, President of Bayer’s Crop Science Division and Member of the Board of Bayer AG. “We define regenerative agriculture as increasing food production, farm incomes and resilience in a changing climate while renewing nature. Our portfolio will deliver future innovations with regenerative agriculture at the core, and we will explore new market opportunities to further allow farmers to combine productivity, profitability, and sustainability benefits.”

Focus on solutions that drive regenerative agriculture

Farmers around the globe can expect access to industry-leading innovations that not only deliver yield improvements, but which can also regenerate soil and minimize the impact of farming on the climate and broader environment – tailored to the different crops. On the farm of the future, the terabytes of data captured from the field as well as the tons of carbon dioxide sequestered, will be as important to the farmer as the yield that each field produces. Going forward, Bayer will focus its investment on solutions that deliver important pillars of regenerative agriculture. This includes improved productivity, social and economic wellbeing of farmers and communities, conservation of water, mitigation of climate change, improved soil health as well as preservation and restoration of biodiversity.

To this end, Bayer’s core portfolio of crop protection, seeds and traits and digital products is best positioned to grow, and significant advancements are being made annually. The company is investing in its industry-leading pipeline to accelerate the delivery of solutions that growers need. Late-stage transformative technologies are being combined with the

annual refresh of the global seed portfolio and the addition of hundreds of new product registrations and formulations every year.

Industry-leading pipeline delivers on the transformation of agriculture

In 2022, 15 projects advanced, including new crop protection active ingredients, new seed traits and digital models. Bayer refreshed its seed portfolio with 500 new hybrid and variety deployments and its crop protection portfolio with 10 new formulation launches and more than 250 new registrations. The R&D investment of 2.6 billion euros before special items in 2022 continues to advance a pipeline with an estimated peak sales potential of more than 30 billion euros, half of which are incremental to the existing base.

“A bold vision takes a bold investment. It takes all five of our innovation platforms – breeding, biotechnology, chemistry, biologicals and data science – to power this pipeline. But it is far more than these platforms alone. It is the convergence of the innovations that allows us to generate system solutions to solve our most pressing challenges,” said Dr. Robert Reiter, Head of R&D at Bayer’s Crop Science Division. “Farmers need the best genetics with best-in-class traits, they need data-driven planting scripts to know when and where to plant those crops. And they need lower impact small molecule crop protection paired with late-season biological solutions and precision applications to sustainably protect those crops. We have a deep and proud history of successfully converting these engines into viable, valuable products for growers.”

Bayer’s R&D pipeline includes several exciting and new technologies:

- **Designer Seeds and Next Generation Breeding Technology:**

With its unmatched germplasm library, Bayer is advancing existing breeding technologies while also developing the next generation of tools like gene editing to create designer seeds for growers in crops like corn, soybeans, cotton and vegetables. The precision breeding program helps to improve both yield and efficiency for farmers, using AI technology to develop the right seeds for the right conditions. In addition, the company is hybridizing staple crops like rice and wheat, to improve their productivity and sustainability. Direct seeded rice has the potential to transform rice production, significantly reducing water consumption while increasing yields. Initial trials under the Bayer Direct Acres program are underway in India.

- **Transformative Trait Technologies:**

The company is expanding its industry-leading expertise into new spaces, like the Preceon Smart Corn System, offering reduced plant height which brings multiple benefits to the farmer. This includes reducing the risk of losses from high wind, season-long access for more precise use of crop protection products and nutrient applications and the potential to optimize inputs, planting populations and field placement through digital tools. The system approach includes digital tools to support planting and showcases the transition from selling inputs to selling solutions. The first generation of short-stature corn to launch was developed via plant breeding and the next generation, expected mid-to-late this decade, was created using plant biotechnology and will expand the reach to more hybrids and acres. Earlier this month, the USDA completed the review of the biotech short-stature corn trait which will help advance through the approval process going forward. With the expertise in protein optimization technology, RNAi technology and biotech, Bayer is able to stack new trait technologies like short-stature corn with current and next-generation insect-control traits like its third-generation corn rootworm trait, to allow farmers to reap the benefits of insect and weed control with this shorter stature product. Other value-driving examples are Bayer's insect and herbicide tolerant soybean varieties with multiple modes of action for Brazil, which are essential to manage the changing pest and weed resistance challenges typical in a tropical environment.

- **Sustainable Small Molecules:**

New approaches to crop protection are expected to shape the industry in future. This includes development of an entirely new herbicide mode-of-action for broadacre weed control, the first in the industry for over three decades. This molecule has demonstrated effective control of key resistant grasses in research and is expected to be commercialized towards the end of this decade. Further examples include a new broad-spectrum fungicide for cereals, corn, fruits and vegetables with blockbuster potential in research phase 3 and a new mode of action broad-spectrum horticulture fungicide in research phase 2 with opportunities to extend to cereals and oil seed rape. Artificial Intelligence helps Bayer design the next generation of crop protection, putting sustainability and environmental impact reduction at the core. New products will enable farmers to tailor and target use in specific ways, for example by using PROTAC technology which is being co-developed with Oerth Bio that is designed to interact with only one target protein

and safeguard beneficial organisms. Bayer is also optimizing application of existing chemicals through digital and AI technologies.

Bayer's innovation engines will power agricultural evolution by equipping farmers with the tools, technologies, and options they need for the future of regenerative agriculture. Precision bred seed products will offer significant acceleration for the genetic gain of yield potential and will be protected by game-changing traits that enable no-till farming to improve soil health. Combined with innovative small molecules and biological solutions that can protect biodiversity and offer low to no-residue solutions, and verified soil improvements through digital tools and technologies, Bayer will shape the future of regenerative agriculture.

Bayer to expand into new accessible ag-adjacent markets

Beyond this core, Bayer is strongly positioned to expand into new market opportunities adjacent to its core offerings, for instance:

- **Crop Fertility and Biological Breakthroughs:**

Biologically based nitrogen-fixation technologies can help farmers grow more with less, reducing emissions and costs for farmers in crops like corn and wheat. The potential biodiversity and soil health benefits from reduced synthetic nitrogen use are significant, and the company's early-stage technology holds great promise. With late season application of biological-based crop protection for insect and disease control, the company also sees opportunities for reduced residues in fruit and vegetable production, an attribute increasingly desired by consumers. As market leaders in biologicals with products like Serenade, and through its open innovation partnerships with Gingko Bioworks, Kimitec, M2i and AlphaBio, Bayer is well positioned in this critical, rapidly growing space and has the ambition to reach more than 1.5 billion euros in sales by 2035.

- **Biofuels:**

Cover crops help farmers protect their fields in a sustainable way, promoting soil health. CoverCress, in which Bayer is the majority share owner, will open additional revenue streams from the sale of the same-named cover crop to biofuel makers. Oil extracted from CoverCress is designed to achieve a lower carbon intensity score and can be made into renewable fuels without competing against

food crops, due to its planting in between seasons. With more uptake, there is significant market opportunity for this sustainable crop.

- **Digital value chain:**

Advancements in precision agriculture and digital farming technology are helping farmers maximize the productivity and sustainability of their land and agricultural practices. Climate FieldView has become an essential decision tool with subscriptions on more than 220 million crop acres globally. In addition to delivering real-time agronomic insights to farmers, it also serves as the digital platform delivering tailored solutions like the Preceon Smart Corn System, combining Bayer's new short-stature corn hybrids with digital recommendations tailored to our customers' fields and performance goals. Beyond the farm, FieldView is the gateway to creating value chain solutions, serving as the system of record for our customers' climate-smart farming practices and powering Bayer's global carbon programs, including Bayer's ForGround platform in the US. Earlier this year, the company unveiled new cloud-based enterprise solutions: Bayer AgPowered Services, powered by the new Microsoft Azure Data Manager for Agriculture, offering a suite of advanced digital capabilities and robust digital infrastructure to accelerate innovation in the food and agriculture industries. Building from the new cloud offerings, innovators and companies across the farm and food value chains can accelerate their speed to value for customers, bring greater transparency to consumers, and deliver increased opportunity for farmers.

- **Carbon Farming:**

Bayer is a leading provider of solutions and platforms that support farmers in removing carbon from the atmosphere and reduce their emissions. No-till farming enabled by herbicide tolerant traits and the use of cover crops can help improve soil health, reduce soil erosion, and cut carbon emissions. As an added benefit, Bayer's Carbon Initiative opens new revenue streams to farmers by connecting them to the global carbon markets.

Rodrigo Santos added: "Bayer is well positioned to lead in the regenerative agriculture space due to our emphasis in digital transformation, commitment to innovation and strong partnerships. Our aim is to transform agriculture to be more productive, more sustainable, and have a net positive impact on the environment."

About Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its 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 2022, the Group employed around 101,000 people and had sales of 50.7 billion euros. R&D expenses before special items amounted to 6.2 billion euros. For more information, go to www.bayer.com.

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