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## External sustainability study confirms the excellent CO<sub>2</sub> balance of KWS hybrid rye

The European Green Deal and the European Farm-to-Fork strategy set clear objectives for sustainable agriculture in Europe — including the goal to reduce harmful greenhouse gases. With this in mind, KWS commissioned a sustainability study<sup>1</sup> to investigate the ecological footprint of various cereal varieties. The result: Per ton of crop yield, hybrid rye produces about 70 kilograms of  $CO_2$  — that is, about 20 percent less than, for example, wheat or barley. Cultivating hybrid rye can thus make an important contribution to achieving Europe's sustainability goals.

"Hybrid rye requires much less water than other cereals and significantly less fertilizer and pesticides because it generally exhibits very good plant health," says Jürgen Leitzke, who heads the business unit Cereals at KWS. "The study validates these positive characteristics and demonstrates the importance of expanding cultivated land to grow rye in order to boost sustainability in agriculture." Blonk Consultants, a global company and international leader in examining food life cycle assessments, carried out the sustainability study, which analyzed and compared cultivation data throughout Germany for hybrid rye, wheat, barley and population rye from 2018 to 2021. The study employed various parameters to measure the respective CO<sub>2</sub> balances: the frequency of tillage, the required amount of seed and its treatment, the application rate of pesticides and fertilizers, and the harvest characteristics (quantity and quality).

Hybrid rye boosts the best environmental footprint, is beneficial for human nutrition and is well suited for use as animal feed. Regional production of food and feed without long transport distances does improve the CO<sub>2</sub> balances of all cereals, however. "KWS has a broad portfolio of seeds for various crops," explains Dr. Peter Hofmann, the Executive Board member at KWS responsible for the business unit Cereals, who added: "The study shows that our strategic focus, particularly on pushing ahead with development of high-quality hybrid rye varieties, is the right one because expanding cultivated land to grow rye moves agriculture one step closer to implementing the goals of the Green Deal."

Another interesting point is that the CO<sub>2</sub> balance of rye has significantly improved just through progress made in plant breeding. This is confirmed in a study from the Julius Kühn Institute  $(JKI)^2$ , which reports the carbon footprint of today's wheat and rye varieties is 13 percent to 23 percent lower than varieties on the market in the 1980s. "Our many years of breeding work has boosted the performance, efficiency and health of the modern hybrid rye varieties we offer," Hofmann says.

Minimizing the use of resources and enhancing the diversity of crops and varieties are a component of KWS's 2030 Sustainability Ambition, an initiative the company started for setting ambitious, measurable goals to deliver solutions that achieve sustainability in agriculture. The current study shines a spotlight on precisely these approaches and makes it clear that plant breeding is a key factor in addressing such future challenges as climate change, population growth, conservation of natural resources and reduction in the use of pesticides as well as highlights the important role rye can play in achieving these goals.

<sup>1</sup> The data is available in the Global Feed LCA Institute (gfli) <u>www.globalfeedlca.org</u>

<sup>2</sup> Breeding progress reduces the carbon footprints of wheat and rye https://urlz.fr/I8KN

## About KWS

KWS is one of the world's leading plant breeding companies. Over 5,000 employees\* in more than 70 countries generated net sales of around €1.5 billion in the fiscal year 2021/2022. A company with a tradition of family ownership, KWS has operated independently for 165 years. It focuses on plant breeding and the production and sale of seed for corn, sugarbeet, cereals, vegetables, oilseed rape and sunflower. KWS uses leading-edge plant breeding methods to continuously improve yield for farmers and plants' resistance to diseases, pests and abiotic stress. To that end, the company invested more than €285 million last fiscal year in research and development. \*excl. seasonal workforce

More information: www.kws.com. Follow us on Twitter® at https://twitter.com/KWS\_Group.

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