

News Release

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Digital crop protection as a complete solution – BASF presents xarvio™ Digital Farming Solutions and for the first time xarvio HEALTHY FIELDS at Agritechnica 2019

- With xarvio™ HEALTHY FIELDS farmers receive an optimized crop protection strategy including professional applications
- Bosch and BASF present new intelligent applications for the targeted use of operating resources
- xarvio SCOUTING and xarvio FIELD MANAGER support farmers with new functions throughout the season

Agriculture is facing major challenges worldwide: In some regions, demand for food and feed is growing rapidly, while in others conditions for production are not satisfactory. In Germany and other European countries, sustainability and transparency are in the public focus. In response to these challenges, xarvio™ Digital Farming Solutions by BASF is developing digital applications that make agriculture worldwide more efficient and sustainable. At Agritechnica 2019, the world's largest trade fair for agricultural technology, in Hannover, Germany, xarvio presents its latest innovations at the "xarvio Field of Vision" booth in hall 15 from November 10 to 16, 2019.

xarvio HEALTHY FIELDS offers farmers completely new possibilities in crop protection. "The recommended crop protection strategy of xarvio FIELD MANAGER will be carried out by an experienced contractor who is working with us. The farmer is relieved of complex work and can follow every single step transparently. If the disease-related leaf damages on a field at the end of a season are greater than agreed in advance, the farmer will receive compensation," explained Tobias Menne,

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Head of BASF Digital Farming. Farmers and contractors can monitor transparently the risk of infestation, recommendations, the current status of application implementation and the documentation of measures at any time. Another advantage: "Normally, contractors are very well technically equipped and with xarvio they can therefore automatically adapt the crop protection measures to each field zone," added Menne.

SMART SPRAYING and xarvio FIELD MANAGER optimize the use of crop protection products

At the xarvio booth, visitors can also experience other intelligent digital farming applications – such as the SMART SPRAYING, which is being developed in cooperation with Bosch. "With the help of camera sensors, the SMART SPRAYING will be able to differentiate between crops and weeds while crossing the field," explained Andree-Georg Girg, Global Head Commercial Operations Digital Farming at BASF. In daily practice in the field, the SMART SPRAYING is connected to the xarvio FIELD MANAGER, which determines based on different parameters whether and which crop protection product in which quantity is required by the respective crop and when. NEVONEX from Bosch ensures a smooth and fast connection between FIELD MANAGER and SPRAYING.

Explore weed scanners, leaf damage analysis and more at SCOUTING Mountain

At "SCOUTING Mountain", visitors can also test the xarvio SCOUTING app in action: Thanks to state-of-the-art image recognition technology, xarvio SCOUTING enables the user to identify and quantify weeds, diseases and leaf damage of a plant, to determine the nitrogen status and to count and classify insects. Thanks to new functions, the xarvio SCOUTING can now scan and document multiple weeds and determine the average amount of plants per square meter post- emergence.

Visitors can also learn how xarvio FIELD MANAGER works. xarvio FIELD MANAGER is a digital product that makes it easier for farmers to make agronomic decisions in various areas. The goal: more efficient and sustainable cultivation to make the most of every field zone. Farmers can view their field status at any time, obtain field-specific cultivation recommendations and download a range of fieldzone-specific application maps. xarvio FIELD MANAGER works with image

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technologies, such as satellite imagery, and combines these with agricultural data, the farmer's experience and know-how.

The latest features of xarvio SCOUTING and xarvio FIELD MANAGER at a glance: xarvio SCOUTING

- Multi-weed identification
- Emergence analysis
- Addition of new weeds, diseases, insects and crops
- Better usability

xarvio FIELD MANAGER

- Automatic buffer zones
- Nutrition maps
- Integration of local weather stations, e.g., Arable
- Machine Connectivity (Agrirouter, John Deere, Nevonex)
- Better usability

xarvio also works intensively on solutions that can contribute to more sustainable production. These include the measurement and classification of externally induced plant stress, automated buffer zones and the recording of biodiversity on and off arable land.

About xarvio™ Digital Farming Solutions

xarvio is at the forefront of the digital transformation of agriculture optimizing crop production. xarvio offers digital products, based on a global leading crop model platform, which deliver independent field-zone-specific agronomic advice enabling farmers to produce their crops most efficiently and sustainable. The xarvio products SCOUTING & FIELD MANAGER are being used by farmers in more than 100 countries worldwide.

About BASF's Agricultural Solutions division

With a rapidly growing population, the world is increasingly dependent on our ability to develop and maintain sustainable agriculture and healthy environments. Working with farmers, agricultural professionals, pest management experts and others, it is our role to help make this possible. That's why we invest in a strong R&D pipeline and broad portfolio, including seeds and traits, chemical and biological crop protection, soil management, plant health, pest control and digital farming. With expert teams in the lab, field, office and in production, we connect innovative thinking and down-to-earth action to create real world ideas that work – for farmers, society and the planet. In 2018, our division

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generated sales of €6.2 billion. For more information, please visit www.agriculture.basf.com or any of our social media channels.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.