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# Creating Sustainable Impact Revysol®



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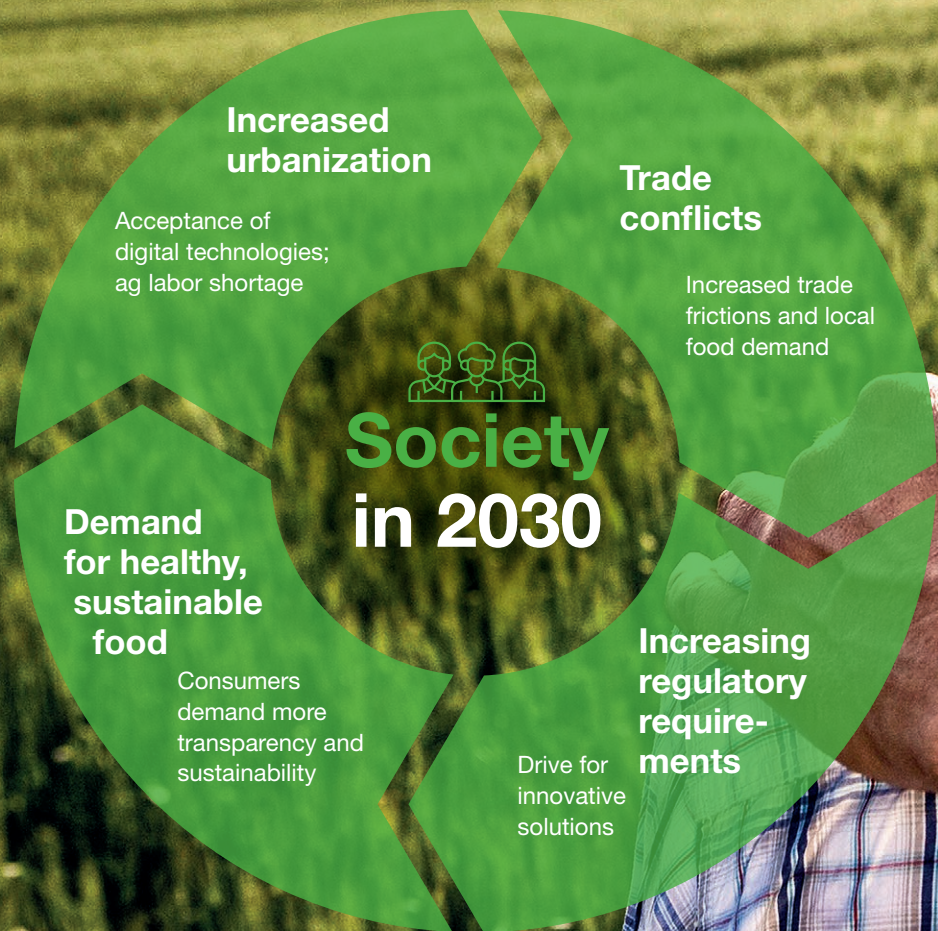
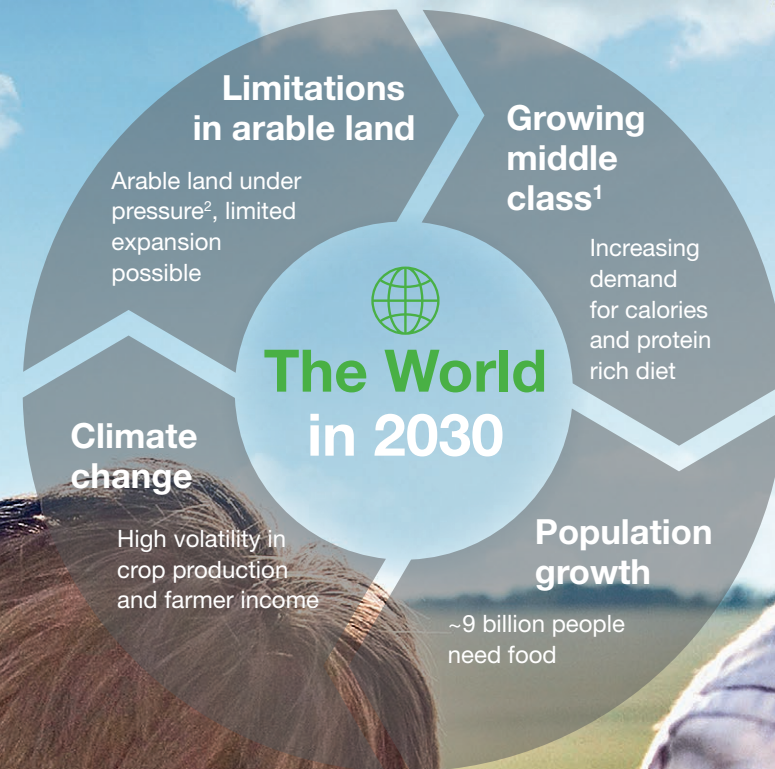
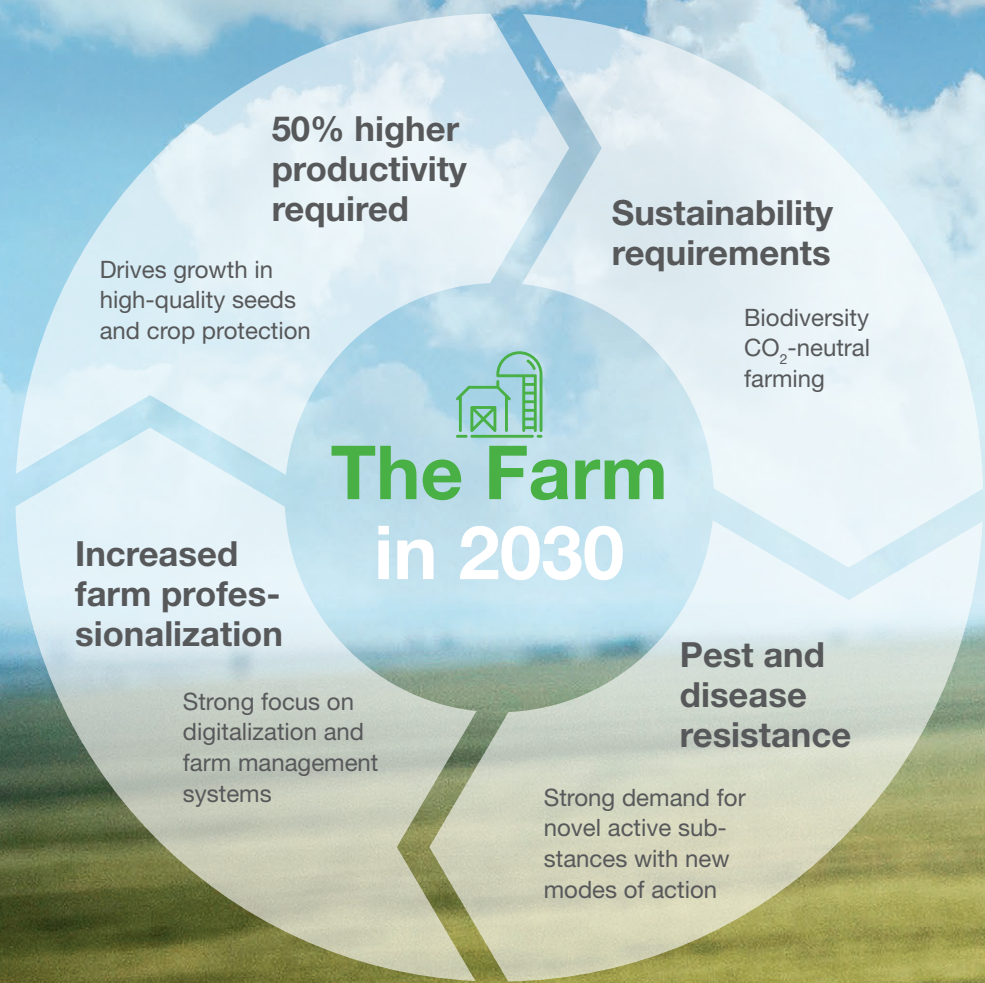


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Revysol®



# 2030



<sup>1</sup> GDP growth per person 2018–2030: China +80%; India +90%; Indonesia +60%  
<sup>2</sup> World Bank: hectares per person 1994–2016: -23%



# Finding the right balance for success – for farmers, for agriculture and for future generations



## BASF in Agriculture – Our Aspiration

Agriculture is all about balance. Life is all about balance. And farmers are masters of finding the right balance. They need to be agronomists, scientists, business managers, data analysts, logistics experts and crisis managers, as well as husbands, wives, parents and employers.

Farmers have an increasingly difficult, but also increasingly important role to balance the need for increased productivity, environmental protection and value to society, and it's clear that agriculture is part of the solution to the food challenges of the future. That's why our aspiration and the core of our strategy is also about balance.

At BASF, we help farmers to comply with these societal requirements. With expert teams in the lab, field, office and production, we connect cutting-edge innovation, game-changing thinking and down-to earth action to anticipate those challenges and provide added value for our customers and for agriculture.

### Balance

- Increased productivity
- Environmental protection
- Value to society

## BASF supports farmers in shaping the agriculture of tomorrow



### Innovation

tailored to our customers' needs



### Digital

enabling crop protection and seeds plus new business models



### Sustainability

solutions and advice for modern sustainable farming




### Customer Experience

adapted offer based on listening and regular feedback



# 4% MORE WHEAT YIELD



Revysol® can secure 7,200 million more loaves of bread or alternatively the annual wheat consumption of 2 million people\*



## Affordable quality food

Europe is the bread basket of the world. In the EU, 33 million people cannot afford a quality meal every second day. It is essential to take action to ensure that everyone has access to sufficient, nutritious, sustainable food that upholds high standards of safety, quality, plant and animal health and welfare.

The ultimate goal is that the most sustainable food also becomes the most affordable, fostering the competitiveness of the EU food/agriculture sector, promoting fair trade, creating new business opportunities, while ensuring integrity of the single market and occupational health and safety.

With BASF's innovative crop protection solutions such as Revysol®, farmers gain more flexibility to balance agricultural productivity and protection of natural resources.

**Farmers face increasing pest and disease resistance, creating a strong need for innovation in crop protection.**

**New crop protection technologies are essential to safeguard yields and are also geared towards complying with ever stricter regulations and societal expectations.**

**For example, the Revysol® based product Revystar® provides 4 decitonnes more yield per hectare than comparable fungicides on the market, while using fewer resources.**

**This increased productivity offers farmers and food value chain partners the possibility to produce sufficient, safe, nutritious and affordable food.**

\*Source: BASF – based on 50% wheat area in EU 2019

40%  
LESS  
LAND  
NEEDED  
FOR EQUAL OUTPUT

With Revysol®, 500,000 hectares less land is needed to produce the same yield\*



## Preservation of biodiversity

A healthy farm ecosystem is vital to agricultural production because it supports plant pollination and soil health, thereby helping farmers to continue to grow more nutritious food.

Any changes in land management, like agriculture, forestry or urbanization will have effects on native biodiversity. Agricultural activities can have implications for species of flora and fauna, either directly or indirectly, by limiting plant and insect food sources, breeding sites and communication corridors.

Innovative agricultural solutions allow farmers the flexibility to grow more food on less land, providing the possibility to reduce the pressure to convert more land to farming. This helps to preserve natural habitats and their wildlife, balancing high yields and space for biodiversity.


**BASF supports sustainable agriculture that balances high yields and biodiversity protection. Products based on Revysol® allow farmers to maximize yields on their farmland, reducing the need to convert more natural habitat to farmland.**

**On an individual basis, farmers can balance between:**  
 → Maximize yield on existing land with same amount of input. Per produced ton of yield, this reduces costs with less fertilizer being used while also reducing potential eutrophication, greenhouse gas emissions and water impact and enhancing soil biodiversity.  
 OR  
 → Maintain yield level and restore farmland to natural habitat for biodiversity and carbon sequestration

\*Source: BASF – based on 50% wheat area in EU 2019



**50%**  
**LESS**  
**WATER USAGE**   
**IN SPRAY APPLICATION**

**24%**  
**LESS**  
**FUEL USAGE** 

Revysol® can save 1.2 million cubic metres of water and 6.7 million litres of fuel on farm level per year\*



### Conserving natural resources on farm operation level

To sustain a healthy planet for future generations, we need to pursue a more responsible approach to consumption and production.

Sustainable food production aims at reducing resource use and environmental impact along the value chain, while maintaining the availability of safe, healthy and affordable food.

The greatest challenge farmers in Europe face today is ensuring a responsible balance between increasing productivity and efficient use of scarce resources such as water.

At BASF we are convinced that innovation will help to tackle this challenge and ensure sustainable food production systems.

**Revysol® based products contain a unique formulation that enables application at reduced water volumes without losing performance.**

**With Revysol®, you need 50% less water than conventional products, while achieving even higher outputs. Applications with low water volumes allow farmers to drive faster, speed up applications and reduce the number of refillings, thereby reducing fuel consumption by 24%.**

**Consequently, Revysol® allows farmers to reduce their agricultural inputs into growing food, achieving a more balanced field management and food production.**

\*Source: BASF – based on 50% wheat area in EU 2019

**UP TO  
47%  
HIGHER  
RELIABILITY  
THAN CONVENTIONAL  
PRODUCTS**



Revysol® enables to reduce the use of crop protection products for a sustainable food production



### Innovation drives more sustainable solutions

For many years Europe has been a global standard for food that is safe, nutritious and of high quality. With the new Farm to Fork strategy, the EU sets out to transform the agricultural system by 2030. This transformation includes using fertilizer and pesticides even more responsibly and sustainably.

With ever more effective and innovative active ingredients and formulations, the agrochemical industry will be a great partner in this endeavor: already the same amount of active ingredient that protected 1 hectare in 1960 protects 32 hectares today\*.

At BASF, we work every day to develop solutions that help farmers protect their yield. With innovations in biological and chemical crop protection, seeds & traits and digital farming, farmers can now use agricultural inputs more efficiently.

**BASF invests continuously in innovative crop protection solutions to safeguard yield while meeting increasingly stringent environmental and safety requirements to prove that new products can be safe to people, animals and the environment.**

**From lab: Very early in the development of Revysol®, we focused on its safety and sustainability to meet the highest regulatory and societal standards.**

**To field: Revysol® enables farmers to achieve a reliable optimum efficacy under the most challenging conditions. Thanks to its up to 47% higher curative efficacy and its long-lasting protection under critical weather conditions, Revysol® outperforms conventional products avoiding the need to repeat fungicide applications. This reduces the amount of chemicals in the field, enabling a more sustainable food production.**

\*Source: ECPA



# Revysol® – An innovation with sustainable impact on the wheat value chain

Agriculture, society and the environment are inseparably interconnected and are in a dynamic process. BASF supports farmers among other things through innovative crop protection products such as Revysol®, in order to meet the increasing requirements and to find the right balance between productive and sustainable agriculture – for farmers, for agriculture and for future generations.

Innovation by



Innovative seeds

Agricultural advice

Digital-connected solutions

Innovative crop protection

AGRICULTURE



Revysol®

more value to society

50% less water usage in spray application

24% less fuel usage

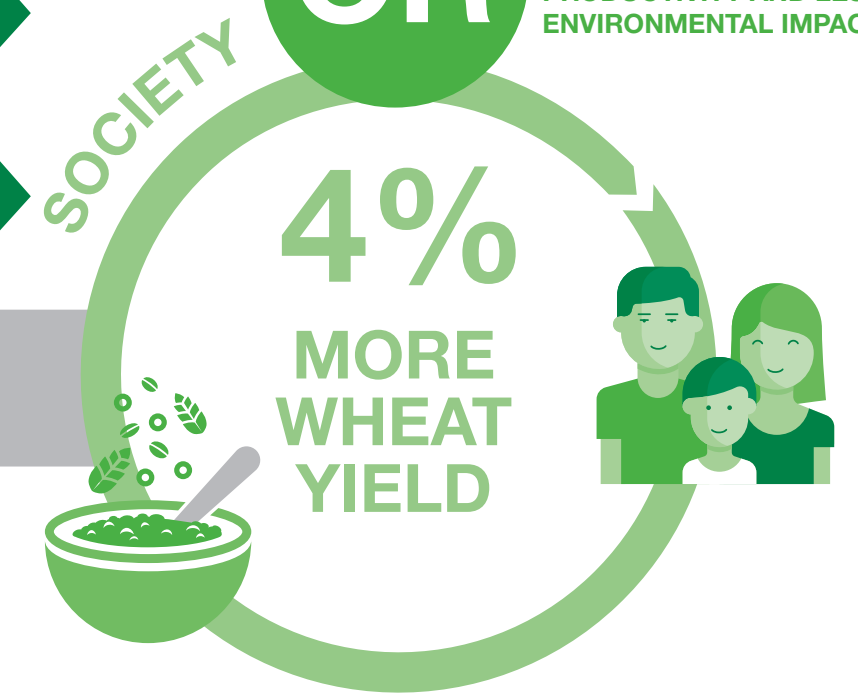
Up to 47% higher reliability

more income for the farmer



OR

BALANCING MORE AGRICULTURAL PRODUCTIVITY AND LESS ENVIRONMENTAL IMPACT



## Sustainability contributions

- Affordable quality food
- Preservation of biodiversity
- Conserving natural resources on farm operation level
- Innovation drives more sustainable solutions









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