

Enhancing productivity and managing biodiversity

The use of modern agricultural technologies increases the productivity per unit area of land. This reduces the pressure to bring more land into cultivation worldwide.

Farmland not under cultivation should be actively managed to enhance farmland biodiversity, for example, by creating beetle banks, flower strips, and hedges on field margins. These landscape features provide a range of benefits to birds, insects, plants, animals and other species that are important to farmland biodiversity and agriculture alike.

Agriculture and environment policies in the EU

Agricultural policies in the EU should take into consideration the goal of ensuring food security, food quality, and biodiversity conservation. They should be based on the efficient use of resources, reducing the carbon footprint and environmental impact of agriculture.

The development of voluntary incentive schemes that encourage a farmer's engagement in biodiversity conservation will support these goals.

Bayer CropScience supports activities creating a win-win situation for farmers, consumers and the environment by increasing food productivity and promoting a healthy environment.

Image: © Stiftung Rheinische Kulturlandschaft

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Biodiversity in modern agriculture

Creating a win-win situation for farmers, consumers and the environment

Biodiversity and farming

The primary aim of farmers is to produce high quality and safe food, feed, and fiber at affordable prices as well as renewable raw materials, where appropriate. Farmland biodiversity – the diversity of living organisms on the farm – plays an essential role in the integrity and functioning of ecosystems. Farmland biodiversity sustains, for example, water quality and a healthy soil, which are vital for food production.

Food and environmental safety

The close relationship between food production and biodiversity conservation creates a major challenge: The demand for food for a growing world population must not come at the expense of natural resources.

Our solution

Development of modern agricultural technologies to produce **more food from less land**.

Support of resource-efficient farming practices including effective water management – **more crop per drop**.

Support of farming practices that **promote active biodiversity management** on the farm.

Bayer CropScience will step up its efforts in cooperating with farmers to maintain and enhance biodiversity on farms.



Our contribution

A vibrant farmland biodiversity is critical for the functioning of ecosystems. Bayer CropScience is committed to actively supporting the protection of farmland biodiversity within its sphere of competency and influence:

Promoting Integrated Crop Management (ICM)

Integrated Crop Management is a farming practice involving the efficient use of resources and thus coexistence of agricultural ecosystems and natural habitats. Bayer CropScience is committed to supporting the training of farmers in Integrated Crop and Pest Management (ICM/IPM).

Providing solutions for climate change mitigation and adaptation in agriculture

Climate change is an imminent threat to biodiversity. In return, a healthy farmland biodiversity helps to sustain farmland ecosystems by mitigating the potentially adverse effects from climate change.

Plants are key components in the global CO₂ cycle. Crop protection products and modern agricultural technology help to grow healthy crops thereby maximizing the CO₂ – uptake and fixation into biomass.

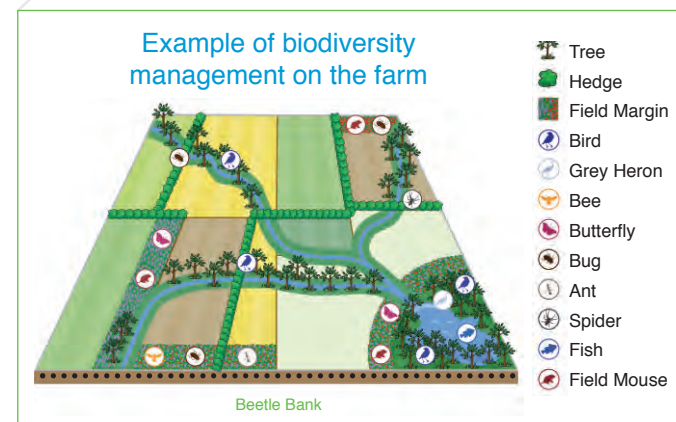
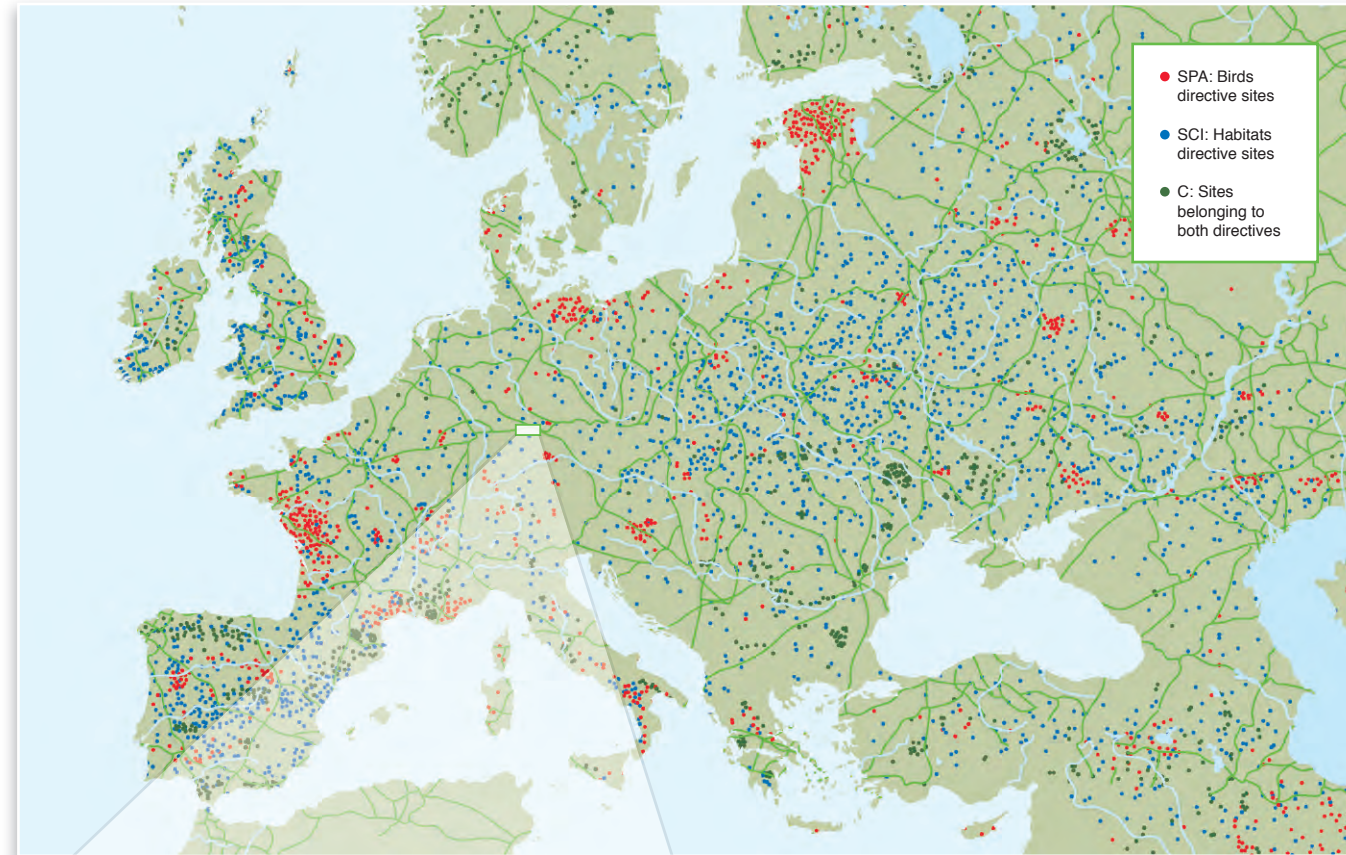
Our breeding programs include crops that have higher yields and are able to withstand heat, drought, salinity or cold weather conditions. This technology, therefore, helps to sustain productivity under suboptimal climatic conditions, relieving the pressure to bring more land under cultivation.

Managing Invasive Alien Species (IAS)

Invasive Alien Species such as rescue grass which hosts diseases of cereals, the Asian ladybird which displaces native ladybirds, the Asian hornet which attacks bees, the horse chestnut leafminer which damages chestnut trees and the Western corn rootworm which attacks farmers crops are recognized as IAS that contribute to biodiversity loss. The use of plant protection products is an important tool to control some of these species and protect biodiversity, including that found on the farm.



A 'green infrastructure' connecting biodiversity sites across Europe



Biodiversity begins at a local level and farmland biodiversity is an important component in the development of a "green infrastructure". It provides widespread connectivity across and beyond agricultural landscapes, linking rivers and lakes, parks and gardens, as well as Natura 2000 and other protected sites. They are the arteries through which biodiversity can develop.

We endorse the idea of a European and global "green infrastructure" as promoted by the Convention on Biological Diversity (CBD) and the European Commission.

Our contribution

Assessing farmland biodiversity on site

In Europe and globally, we are engaged in projects that assess and demonstrate the compatibility of increased productivity and biodiversity conservation in cooperation with stakeholders.

In Germany we support a project in cooperation with the "Stiftung Rheinische Kulturlandschaft", a local foundation. The goal is to spread farming practices that re-introduce rare wild flowers into farmland.

On our research farms in the UK, a series of locally adapted biodiversity-enhancing measures were implemented. Their effectiveness is evaluated in cooperation with local NGOs and the lessons learned are shared with farmers, to encourage similar activities on their own farms.

Biodiversity conservation in R&D

Research and development is a forward-looking and innovation-driven approach to constantly improve the efficiency and environmental friendliness of agricultural technologies. On average, for every €10 of sales, €1 is reinvested in the search for even better products. To ensure environmental safety, plant protection products are assessed thoroughly for their impact on birds, insects, animals, plants and the wider environment.

Supporting international efforts

Bayer CropScience endorses a correct implementation of international treaties such as the Convention on Biological Diversity and the Cartagena Protocol on Biosafety.

