

Modern Agriculture and Food Supply

Arable land is a limited resource which cannot be expanded at will and is most likely to become even scarcer due to climate change and to protect biodiversity. Food supply for a growing world population cannot be secured unless we manage available areas efficiently and with high yields. Modern agriculture allows food to be grown even under the most difficult conditions.

In Germany, modern agriculture produces twice the yield per hectare in major crops as organic farms, which refrain from using mineral fertilisers and most synthetic pesticides. Furthermore, the more efficient management methods result in fewer greenhouse gas emissions per unit.

"Farm-to-fork" ignores conflicting goals

In its "Farm to Fork" and "Biodiversity Strategy", the EU Commission plans to reduce the use and risks of pesticides and nutrient losses by half by 2030. At the same time, the share of organic farming is to be expanded to include at least 25 percent of agricultural land. Such rigid reduction targets fail to see the bigger picture, as the need for pesticides and fertilisers depends on a variety of factors and varies. If these resources are unavailable, we can expect to see considerable crop losses. The same applies to the planned expansion of organic farming which will inevitably result in a decline in domestic agricultural production. However, given the growing uncertainty on the global commodity markets as a result of the war in Ukraine, demand is more likely to increase than it is to decrease. The same goes for Germany and Europe as a whole. They need to make their agricultural production more

robust if they are to secure their own supply as well as the global supply.

The order of the day: innovative solutions

We don't just need to acknowledge the conflicting goals referred to above, but also resolve them by employing a holistic strategy that makes use of efficient agricultural production processes as a means of reconciling climate and biodiversity protection on the one hand and reconciling food security on the other. Research into, and further development of, innovative pesticides and fertilisers are crucial for this. As a result, we would be able to create innovative - not to mention biological - active ingredients to be used in pesticides and biostimulants that will lead to better nutrient utilisation, more robust crops, and mineral fertilisers that are both highly efficient and eco-friendly.

Furthermore, there is enormous scope for reducing the amount of pesticides and fertilisers we need if we make greater use of digitalisation ("precision farming"). Precise and targeted application contributes significantly to sustainability and efficiency in modern agriculture.

New biotechnological methods also allow farmers to breed resistant varieties more safely, more precisely, and at a faster rate. What is more, these varieties will adapt to climate change, and this will result in higher yields. This also provides for a major reduction in the use of products containing pesticides, while securing or even increasingly yields.

The VCI is calling for the following

● Use innovations for the most efficient and sustainable management

We need a holistic strategy to effectively counter the impacts of climate change and biodiversity losses, and to resolve the conflicted goals that come with them. Modern agriculture employs urgently needed methods to manage scarce resources efficiently and sustainably. Innovations from the chemical and biotechnology industry need to be assessed on a purely scientific basis and made available to farmers rapidly.

● Accelerate network expansion in rural areas as a means of harnessing the potential of digitalisation

Farmers depend on precision technologies to use pesticides and fertilisers in the most targeted and efficient way possible. If we are to utilise these technologies fully, high-performing data networks need to be expanded in rural areas at an expedited rate, and agriculture needs to be given financial support to invest in new equipment.