

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. Unless we manage available areas efficiently and with high yields, food supply for a growing world population cannot be secured. Modern agriculture allows food production even under the most difficult conditions.

In Germany, modern agriculture produces twice the yield per hectare in major crops compared to organic farming which refrains from using mineral fertilisers and most synthetic pesticides. Furthermore, modern farming methods emit much less greenhouse gas per unit of food produced.

EU strategies ignore conflicting goals

In its "Farm to Fork Strategy" and "Biodiversity Strategy", the EU Commission plans to reduce by 2030 the use of pesticides by 50 percent and to cut the use of fertilisers by at least 20 percent. At the same time, the share of organic farming is to be expanded to at least 25 percent of all agricultural land.

Such rigid quantitative reduction targets fail to meet the overall goal. The use of plant protectants and fertilisers varies according to the situation and needs of a crop, so that a considerable decrease in yield is to be expected. The same applies for the planned expansion of organic farming which, moreover, would result in higher greenhouse gas emissions per unit produced. This must be avoided, as the demand for

agricultural commodities and renewables is likely to rise rather than decline – chiefly, due to the growing world population and, secondly, because of the increasing demand for biomass for energy production.

Innovative solutions are needed

This conflict of goals must not be ignored but should be resolved in an overarching strategy that reconciles climate and biodiversity protection on the one hand and food security on the other through improved agricultural production. Research into and further development of innovative plant protection and fertilisation are crucial for this - and at best result in low-risk active ingredients, newly developed biologicals and biostimulants as well as highly efficient mineral fertilisers.

Furthermore, digitalisation ("precision farming") brings new opportunities to reduce the use of plant protectants and fertilisers according to the given situations and needs. Their targeted and precise application contributes significantly to sustainability and efficiency in agriculture and reduces nitrogen surpluses which are harmful to the climate.

Moreover, new approaches in biotechnology enable the faster, safe and precise breeding of resistant varieties that are adapted to a changing climate. This also allows a major reduction in the use of plant protectants and fertilisers – while securing or even increasing yields.

The VCI is calling for the following

● Use innovations for the most efficient and sustainable management style

It takes a holistic strategy to effectively counter the impacts of climate change and biodiversity losses and to resolve the conflicting goals that come with them. Modern agriculture provides the urgently needed methods for an efficient and sustainable management of scarce resources. Innovations from the chemical and biotechnology industry should be assessed on a purely scientific basis and made available to farmers – instead of being stigmatised.

● Speed up network expansion in rural areas to use the potentials of digitalisation

Farmers depend on precision technologies to apply plant protection products and fertilisers in the most targeted and efficient way. In order to fully utilise these technologies, the expansion of high-performing data networks should be driven forward vigorously in rural areas.