

## Use of agrochemicals (e.g. synthetic fertilizers, pesticides, growth regulators, antibiotics)

Agroecology Europe argues that agricultural systems can only be managed sustainably through better knowledge and use of beneficial ecological interactions between soil, plants, livestock and other organisms occurring across multiple scales (field, farm and landscape). These beneficial interactions are fostered by diversification of practices and production systems. For example, building up healthy soils and ecological networks is key to maintain agroecosystem equilibrium and resilience and to provide multiple agroecosystem services (e.g. soil quality and biological control of pests and pathogens) while reducing the need of external inputs, including agrochemicals. Other efficient nature-based strategies exist for controlling weeds, and livestock diseases and parasites.

Agroecology Europe stresses the importance of focussing on the *prevention* of crop and livestock disorders *versus* cure.

Agroecological practices and systems may seek inspiration from the regulations of certified Organic Farming, but should go beyond the minimum organic standards to fully deploy the potential of biodiversity for sustainable food production.

Ideally, agroecological systems should thus use neither synthetic agrochemicals nor organic certified pesticides, also in the transition period, because in most cases the use of e.g. pesticides or antibiotics counteracts the ecological functions of ecosystems that agroecology aims to enhance. The economic risks of sustainable food production – that may occur especially in the transition period – should be compensated by fair prices, public support and/or solidarity systems such as Community Supported Agriculture schemes.

However, Agroecology Europe acknowledges that during the transition towards agroecological systems there could be cases in which some use of agrochemicals may be required, e.g. to face unexpected pest outbreaks. In these cases, synthetic & organic pesticide with the lowest environmental impact should be used, and only where no other ecologically-based solutions or agroecological techniques can be immediately implemented. These applications should be considered as one-shot treatments to face emergency situations and to complement non-chemical methods and never as stand-alone treatments.

The final goal of any agroecological systems is to increase resilience by enhancing the use of renewable and internal resources and through system diversification.