

# Use of legumes-cereals mixtures in organic farming

## Summary

Organic farming is characterized by taking care of whole agro-ecosystem, which consists in effort to keep or improve soil fertility through choosing appropriate practices for growing plants, preventing erosion and water contamination by agricultural operations. Choosing of suitable crops and their rotating in crop rotation, have irreplaceable role within this nature friendly system.

Due significant quantity decrease of farm animals in the Czech Republic there is consequently decreased production of livestock manures, which contribute to quality and quantity of organic matter in soil. Missing nutrients and organic matter can be supplied to the soil through green manure, especially by growing summer mixtures. Those are mostly intercrops of legumes-cereals mixtures, which show, in comparison to monoculture, not only lower losses of nitrogen from soil, but also more stable yields.

In the Czech Republic legumes or their mixtures are in majority of the production areas not grown much as main crop. Lowest portion of legumes is grown in maize and beet production area, which are rather specialized in growing commercial crops. In these production areas, as well as anywhere else, legumes-cereals mixtures can be great help for improving soil fertility.

Legumes-cereals enrich soil of nitrogen, enhance soil structure, suppress weeds and pests and at the same time they can be used in many different ways. They are source of quality fodder for farm animals and organic matter and if well chosen, they can be grown successfully in most areas of the Czech Republic.

**Keywords:** crop rotation, soil fertility, organic farming, legumes-cereals mixtures