

ISSUES OF SUSTAINABILITY IN FERTILIZATION

Ewald Schnug and S Haneklaus

Institute of Plant Nutrition and Soil Science, Federal Agricultural Research Center (FAL), Bundesallee 50, D-38116 Braunschweig, Germany, email: pb@fal.de

Sustainability is a term widely used but in many cases poorly understood. Its implications go much further than the performance in the present when often only “profit” is seen as an indicator for sustainability. According to the definition of ‘The Brundtland Commission’ (1997) “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The trouble with sustainable development is that it requires investments for future generations, which are usually not profitable in the present. Wendell Berry (2002) named this “We currently live in the economy and culture of the ‘one-night stand’. Industrialism has provided us innumerable commodities, amusements, and distractions, but these offer us little satisfactions. Instead we suffer ever-increasing alienation from our families, our communities, and the natural world“. Also today's agriculture and its prospected future development are far away from being sustainable. Technological developments in agriculture are often justified by claiming on alleviation of world hunger, but as Andrew Kimbrell (2002) writes: “World hunger is not created by lack of food but by poverty and landlessness, which deny people access to food. Industrial agriculture actually increases hunger by raising the cost of farming, by forcing tens of millions of farmers off the land, and by growing primarily high-profit export and luxury crops”.

Fertilization has its share in sustainable development, too: loss of nutrients from agroecosystems waste non-renewable resources of phosphorous, nitrogen compounds pollute atmosphere and water bodies, phosphorous fertilizers charge soils with heavy metals and radioactivity and organic fertilizers from wastes carry for instance antibiotics and pathogens. Besides a general discussion about sustainable development and the European Communities strategic concept of “cross-compliance” the contribution focuses on issues of fertilization involved in sustainability like nutrient efficiency and nutrient losses, balanced fertilization, transfer of toxic inorganic and organic compounds as well as soil conservation.

References

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