



DRAFT FOR SuMaNu Policy recommendation #1

The SuMaNu project platform produces a set of policy recommendations to support its aim of sustainable agriculture and nutrient recycling. These policy recommendations have been developed based on earlier projects and expert work in the SuMaNu project with a particular focus to serve the objectives and drafting process of the HELCOM Baltic Sea Regional Nutrient Recycling Strategy.

Please note that this is a draft. The final version will be published later.

Fertilization planning and nutrient balancing

Annual field-level fertilization planning and farm-gate nutrient balancing for nitrogen (N) and phosphorus (P) should be a requirement for all farms in the Baltic Sea Region as a measure to optimise nutrient use efficiency on farms and to enhance nutrient recycling.

Background

Sustainable fertilization planning

To avoid overfertilization, while ensuring sufficient crop nutrient supply, fertilisation should be planned on a field plot level annually. Planning should at minimum cover the use of nitrogen and phosphorus, which are not only the most critical crop nutrients in a sense of crop production, but also the major nutrients causing deterioration of ground and surface waters, if used in excess.



Norms or guidelines for economically optimal nitrogen and phosphorus fertilisation rates that farmers can adjust for local conditions and expected yields should be developed for all relevant crops and updated regularly at a national level. The fertilisation norms or guidelines should be set within the limits of the fertilization regulation applied.

Planning fertilization with manure should be based on the most sustainable use of its nutrients. To create a complete picture of the soil nutrient supply capacity, soil analysis data and field cultivation history, including crop rotation, should be taken into account. Soil analysis should be taken at least once every 5 years. It is also essential to keep farm-level records of the use of fertilizers.



Farm-gate nutrient balancing

Farm-gate nutrient balancing should be done annually after harvest to be able to follow the nutrient use efficiency on the farm, optimise resource economy and understand how this is affected by the crop and animal production system. Farm-gate nutrient balances are calculated on the basis of information about animals sold and bought, feeds bought, crops and products sold (milk, meat, eggs), purchased seeds, and purchased mineral fertilisers. The nutrient balance calculation can also be made on field level, which requires further specification of all field-level data including harvested yield for primary and secondary crops, input of seeds, and the nutrient content in the used manure and different mineral fertilisers.

On farm level, the results of nutrient balance calculations, especially when counted repeatedly for several years, provide important information on the nutrient flows and the nutrient use efficiency. The balance calculation can be used as a tool for improved crop rotation and fertilisation, and is important for farm economy, as well as an indicator of the environmental performance of the farm. Some reference values should be given to different farm types and/or for different crops, to help assess the nutrient use efficiency on the farm.

