Reduction of fertilizer use

Description of the measure

The aim is to fertilize crops in line with requirements and to improve nutrient efficiency. Nutrient surpluses and the associated discharges into ecosystems, water bodies and the air are to be reduced. Key tools for reduced and effective fertilizer use are:

- Annual preparation of a farm gate-related nutrient balance (farm gate balance)
- Annual preparation of a field- and crop-specific nutrient balance sheet to determine fertilizer requirements
- Alignment of the upper limit for nitrogen fertilization with requirement values by the regional official advisory service
- Regular determination of fertilizer requirements prior to the application of significant amounts of nutrients (N=50 kg/ha; P=30 kg/ha)
- Regular humus balancing (should never be negative and should be supplemented by a comprehensive humus survey every 6 years)
- Integration of catch crops for green manure, e.g. grasses, oilseeds or legumes, on farms with predominantly cereal crops

Effects on biodiversity

Lower and thus site-specific fertilization improves soil fertility, soil life and humus build-up. In addition, the pollution of groundwater and surface water is reduced, which has a positive effect on animal and plant life. Soil life benefits from an optimal supply of nutrients (including lime). With lower nutrient levels in the soil, even plant species with weak competition can develop and establish themselves.

Further positive effects

Precise fertilization in line with requirements saves operating resources and working time. At the same time, emissions of greenhouse gases (N_2O und CO_2) caused by excess N in the soil are reduced. In addition, it is imperative to save P fertilizers in view of the depleting natural P resources of the Earth.

Further recommendations

For optimal fertilizer management, advice from expert consultants can be helpful.

For further reading: *BLE Broschüre „Effizient düngen - Anwendungsbeispiele zur Düngeverordnung“:*
https://www.agrarheute.com/sites/agrarheute.com/files/2018-11/bzl_effizient_duengen_-_anwendungsbeispiele_zur_duengeverordnung.pdf

Sources: *Empfehlungen für wirkungsvolle Kriterien zum Schutz der Biodiversität in Standards für die Lebensmittelbranche und Beschaffungsrichtlinien von Lebensmittelunternehmen:*
https://www.business-biodiversity.eu/de/empfehlungen-biodiversitaet-in-standards