



Document title	Manure standards
Code	8-1
Category	INF
Agenda Item	8 - Nutrient content in manure
Submission date	14.11.2014
Submitted by	Finland
Reference	

Background

The attached document contains information by Finland on ongoing work concerning nutrient content in manure which can be utilized in the manure standard work outlined by HELCOM.

Action required

The Meeting is invited to take note of the information and make use of it for further planning of the Agri Group activities.

MANURE STANDARDS

In reference to the outcome of the 46th meeting of the HELCOM Heads of Delegation (HOD 46-2014) and its notions on AGRI/ENV FORUM:

- 4.45: Finland confirmed the possibility to take the lead for the work on nutrient content in manure;
- Annex 5, ToR for HELCOM group on Sustainable Agricultural Practices: Support development by 2016 of national guidelines or standards for nutrient content in manure, and develop by 2018 guidelines/recommendation on the use of such standards.

Finland will lead the work on nutrient content in manure via supporting the creation of manure standards. More specifically, MTT Agrifood Research Finland (Natural Resources Institute (LUKE) from Jan 1, 2015, onwards) and Finnish Environment Institute (SYKE) are currently building a calculation system for Finnish normative manure (manure standards) in a project (2014-2015) funded by the Finnish Ministry of the Environment. The project will be utilized in the manure standard work outlined by HELCOM. The Finnish system will calculate average manure quantity (mass) and quality (dry and organic matter, N, P, K) for

- different animals (cattle, pigs, poultry, horses, sheep, goats, fur animals),
- different manure types (slurry, dung and urine, farmyard manure, deep litter),
- most common housing and storage systems.

The calculation is based on animal feeding and excretion (amount and quality of faeces and urine excreted). Then the system takes into account different housing systems (incl. bedding, water), manure storage and emissions along the manure management chain. It produces three types of manure results: i) ex animal, ii) ex housing, iii) ex storage. The system will also be adapted to farm-scale estimation of manure quality.

Denmark has been requested to join the work, since they already have a functioning calculation system for normative manure. Cooperation with the responsible Aarhus University has been confirmed for the creation of the Finnish system and its extension to the HELCOM task is on-going.

The Finnish and Danish normative manure systems will serve as a basis and example for the manure nutrient content standards/guidelines to be created as part of the aims of HELCOM AGRI/ENV FORUM.

In November 2014, the work is progressing at the stage of data collection. This includes all relevant data on animal feeding, excretion and the manure management chain, all having a profound impact on the quality and quantity of manure produced. Moreover, current status of possible existing manure standards or "average table values" for manure in different countries, especially HELCOM countries, is being checked and the data behind them evaluated. The data collected is essential for creating jointly accepted manure standards for the Baltic Sea Region countries.

It is anticipated that the baseline data collection is ready by the end of 2015 and allows for creating the national manure standards during 2016. By 2018, guidelines/ recommendations for the use of the standards created will be ready.

Contact persons:

Sari Luostarinen, Principle Research Scientist, MTT (firstname.surname@mtt.fi)

Juha Grönroos, Principle Research Scientist, SYKE (firstname.surname@ymparisto.fi)

Hanne Damgaard Poulsen, Professor, Aarhus University (hdp@anis.au.dk)