Advanced Manure Standards for sustainable nutrient management and reduced emissions

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The story behind the project (1)

• OVERALL:
  – Need to improve nutrient recycling and reduce nutrient losses to the environment in agriculture, industry and municipalities

• IN THE BALTIC SEA REGION:
  – Eutrophication of the Baltic Sea and the role of agricultural nutrient input

• IN MORE DETAIL:
  – Manure from animal farms the major recyclable biomass with a lot of nutrients
  – Manure use as fertiliser currently based on variable methods to determine its nutrient content
  – Bad quality data on manure may cause bad choices in manure management and use
  – Need to improve the data and harmonise methods between countries
The story behind the project (2)

- In 2013, HELCOM Ministerial Meeting made a declaration:
  - Development of national manure standards for manure nutrient content by 2016; joint guidelines for their use by 2018
- The way forward: a joint project with partners from research, authorities, farmers, advisors and collaboration with policymakers
- Manure Standards
  - October 2017 – September 2019, 19 partners from 9 Baltic Sea Countries
  - Main funding from Interreg Baltic Sea Region Programme (total 2.9 M€)
  - Flagship project for the EU Strategy for the Baltic Sea Region
What do we do in Manure Standards?
GUIDELINES FOR MANURE SAMPLING

Recommendations for manure analysis

Manure management survey

Basic manure calculation tool

Farm-scale

National/regional

What is the impact of manure data

The environment and farm economy

TOOLS FOR DATA COLLECTION

IMPACT OF DATA

IMPLEMENTATION

Handbook on good practices

Report on fertilisation regulation

Dissemination via national events

Implementation at HELCOM level

WP2

WP3

WP4

WP5

2/20/2019
An example of results
WP2: The making of instructions for sampling

• Development of a sampling protocol according to different national and scientific guidelines for liquid and solid manures

• Over 80 pilot farms in nine countries
  – Sampling on the pilot farms at different times using the joint protocol

• Analysis in more than one laboratory
  – Comparison of results considering the analysis methods

• Final guidelines for taking representative manure samples
WP2: Dissemination of good sampling practices

Step 3: Liquid manure –
Then 5-10 subsamples are mixed in a bucket before taking out 1 litre of representative sample for analysis. And again – sample must be stored well sealed in cool temperatures!
In the end, we aim to...

- Have a basis for more harmonised methods for manure data collection
- Know more about the uncertainties included in the methodology
- Provide clear guidelines for good practices in manure management using best possible, updated data on manure quantity and quality
- Inform about the impact the quality of manure data used in policies and in practice can have on nutrient recycling targets, farm economy and on the environment
- Assist policymakers in making effective, nationally and transnationally equal regulation and support for manure management
- Assist farmers to make most of their valuable manure
Thank you!

Find us online: www.luke.fi/manurestandards/en/