

MANURE STANDARDS – joint guidelines for manure data and its use in the Baltic Sea Region

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Airi Kulmala, MTK



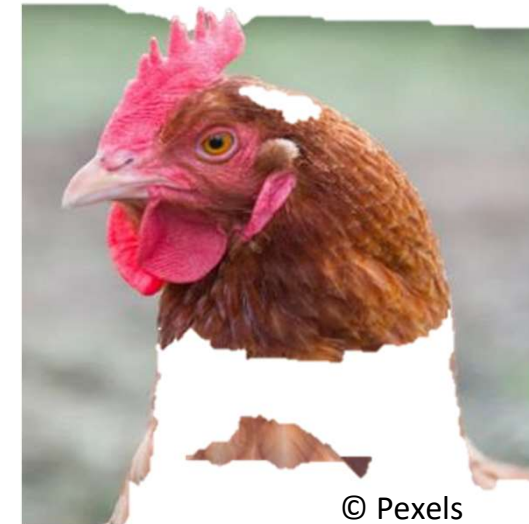
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The role of manure data in nutrient recycling and emission reduction targets

- Manure - a valuable resource to be utilized efficiently, but also a risk for emissions
- Manure management, fertilizer use and plans for processing are based on data on manure quantity and quality
- Also, policy instruments to regulate and guide manure management, as well as emission targets and inventories to meet them rely on the same data
- Manure data is needed for several animal groups and manure types

Manure data collection at present

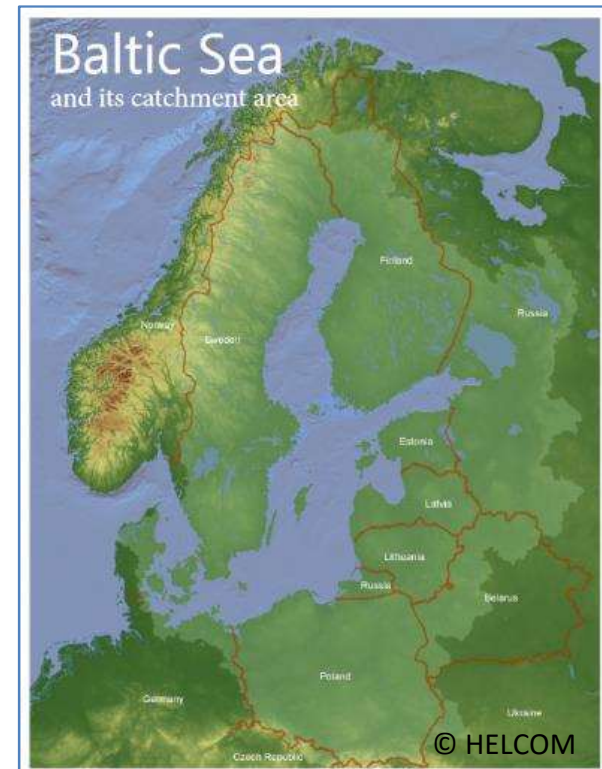
- Different methods based on
 - Manure sampling and chemical analysis OR
 - Model calculations, often as mass balances
- No harmonized methodologies internationally
 - May also vary nationally according to use/user
- Variability also in updating
- Is the data nationally/internationally equal for those using it and/or being affected by it?



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Baltic Sea Region towards more harmonized manure data

- HELCOM has ten contracting parties in the Baltic Sea countries and European Commission committed to preserving the Baltic Sea
- In 2013, a Ministerial Declaration was made to have
 - National manure standards for manure nutrient content (2016) and
 - Joint guidelines for their use (2018)



Advanced manure standards for sustainable nutrient management and reduced emissions

- 19 partners in nine Baltic Sea countries
 - Lead partner: Natural Resources Institute Finland (Luke)
- 2.89 M€ mainly from Interreg Baltic Sea Region Programme
 - A flagship project for the EU Strategy for the BSR
- Two years: 10/2017 - 09/2019



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PARTNERSHIP

1. Natural Resources Institute Finland Luke (FI, coordinator)
2. Institute of Soil Science and Plant Cultivation (PL)
3. RISE Research Institutes of Sweden (SE)
4. Helsinki Commission HELCOM (FI)
5. Lithuanian University of Health Sciences (LT)
6. Estonian University of Life Sciences (EE)
7. Julius Kühn Institute (DE)
8. Finnish Environment Institute SYKE (FI)
9. Aarhus University (DK)
- 10. Danish Agriculture & Food Council SEGES (DK)**
11. Swedish Board of Agriculture (SE)
12. State Plant Protection Service of Latvia (LV)
13. Estonian Crop Research Institute (EE)
- 14. Central Union of Agricultural Producers and Forest Owners MTK (FI)**
- 15. Latvian Farmers' Parliament (LV)**
16. Agricultural Advisory Center in Brwinów (PL)
17. Institute for Engineering and Environmental Problems in Agricultural Production (RU)
18. Pskov Agrotechnical College (RU)
19. Society for Assistance of Sustainable Rural Development (RU)



Plus 32 Associated Organisations:

- 5 from Finland
- 3 from Poland
- 2 from Sweden
- 4 from Estonia
- 4 from Denmark
- 3 from Lithuania
- 4 from Germany
- 3 from Latvia
- 4 from Russia

Representing national ministries, authorities, NGOs, advisory organisations, education, SMEs

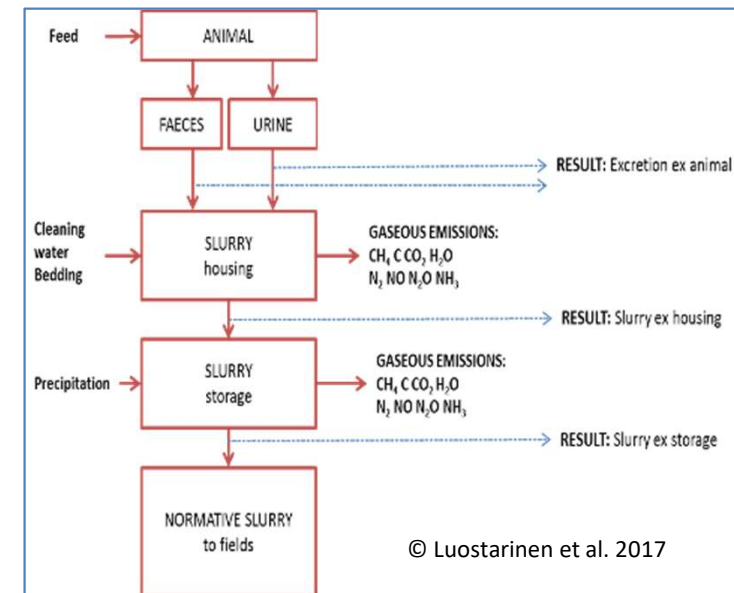
Co-operation between target groups

- Farmers, advisors, authorities and policymakers are all involved in order to
 - Produce updated, reliable manure data for all needs
 - Ensure transparency
 - Improve acceptance and ensure implementation
- Research organizations in the partnership those who are responsible for 'official' manure data in the countries



Two joint guidelines to be developed

- Comparison of current manure sampling and analysis methods + manure management surveys
 - Testing with pilot farms and laboratories in all BSR countries
 - **OUTPUT: joint guidelines for manure sampling and analysis**
- Development of a basic template for manure mass balance calculation
 - Comparison of existing methods, development of existing models
 - Validation with data from pilot farms
 - **OUTPUT: joint calculation tool for manure quantity and quality**



Impacts on manure use and regulation

- Impact assessment between current national manure data and new data provided by the methods developed
 - Environmental: potential change in nutrient fluxes, nutrient balances and emission potential when using the new data as the basis for manure fertilization plans
 - Economic: potential change in e.g. required field area and manure storage capacity and the costs involved
 - Testing with pilot farms and on regional, national, and transnational level
 - **OUTPUT: recommendations for enhanced manure use via farm-scale nutrient bookkeeping and more effective policymaking using the new manure data**

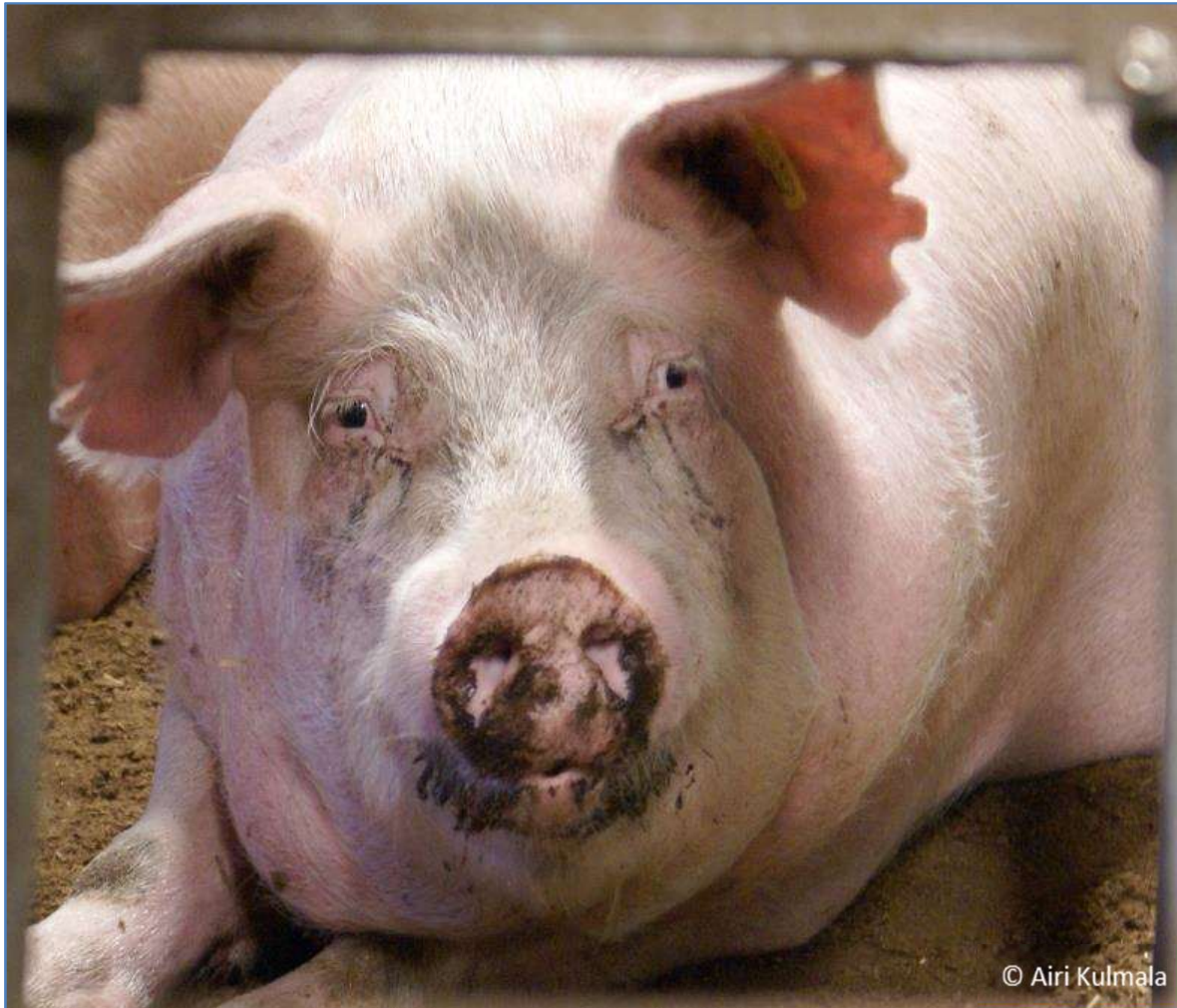
Implementation plan for the new guidelines in the BSR

- Based on the results, implementation plan for the joint guidelines in the BSR is initiated in the HELCOM group on Sustainable Agricultural Practices (Agri)
 - Ministries, authorities and observers from farming and NGOs
- **Ultimate joint target to**
 - Enhance manure use
 - Reduce emissions from manure
 - Improved equality between farmers and countries in circular economy & emission reduction targets and actions to fulfil them





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Find us online:
www.luke.fi/manurestandards