

NATIONAL INQUIRY ON CIRCULAR AND NON-TOXIC REUSE OF PHOSPHORUS FROM SEWAGE SLUDGE

Uwe Fortkamp

Swedish EPA

Based on information from the
Secretariat of the Inquiry

Inquiry organisation

- Chair: **Gunnar Holmgren**
- Secretariat: **Folke K Larsson, Ida Lindblad Hammar and Mats H Johansson**
- Expert group
- Final report to the Swedish Government in Dec 2019

Secretariat provided information for this presentation

Background

- Present legislation: 1994, implementation of EU sludge directive
- Revaq – voluntary quality system for sewage sludge use on arable land and upstream measures
- EPA National investigations – 2002, 2009, 2013

Mission of inquiry

- Propose ban of spreading wastewater sludge together with requirement of recovering Phosphorus
- Describe technical developments for P-recovery from wastewater sludge
- If necessary – propose financial support systems
- Secure future upstream-activities
- Analyse socio-economic consequences, cost-effectiveness, alternative scenarios, financing and environmental assessment

Link to English summary

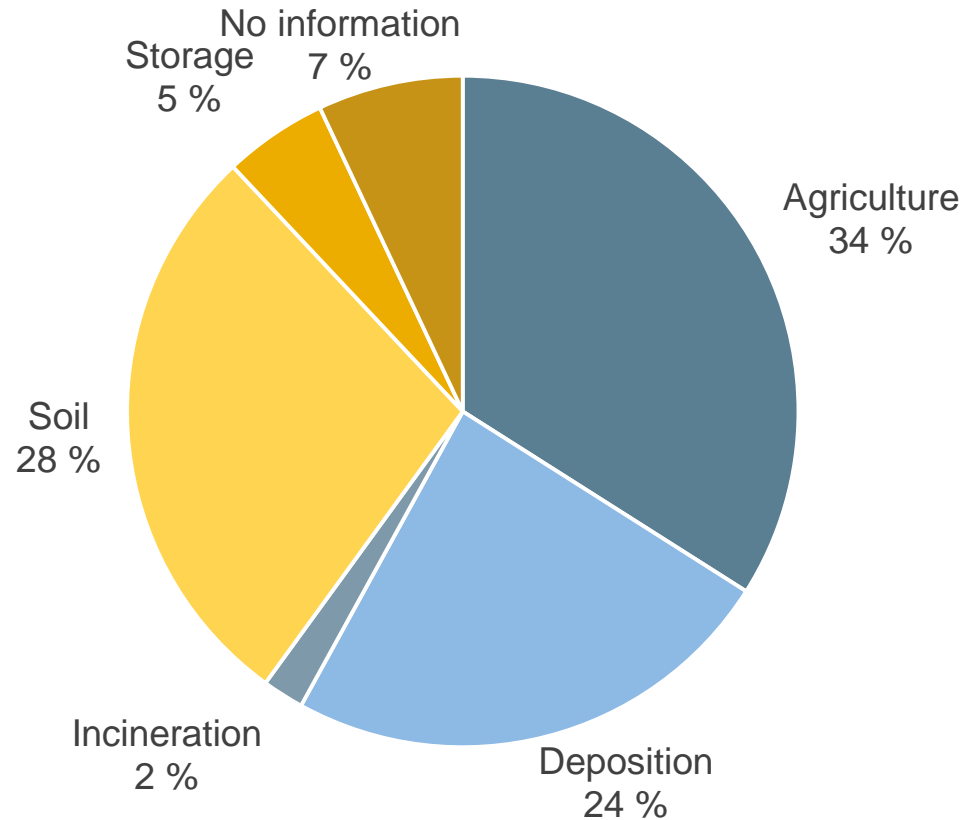
- <https://www.government.se/press-releases/2018/07/inquiry-to-propose-ban-on-spreading-sewage-sludge-on-farmland-and-a-phosphorus-recycling-requirement/>

Municipal wastewater treatment plants 2016

- 416 plants > 2 000 pe
- 49 plants > 50 000 pe

- Sewage sludge, annual production: 204 000 ton dm

Disposition of sewage sludge 2016



Limit values for sludge metal addition g/ha/year for a defined period

Allowed addition to arable soil	SE – Revaq 2019	SE – Sludge ordinance	EU – Sludge directive
Hg	0,61	1,5	100
Cd	0,53	0,75	150
Cr	40	40	–
Cu	300	300	12 000
Pb	25	25	15 000
Ni	25	25	3 000
Zn	600	600	30 000
As	59	–	–

Current Status

- Better understanding of the situation
 - Current management of the sludge
 - Stakeholder views including expected effects
- International/European situation overview
- Development of 2 scenarios
- Analysis of consequences
- Start drafting parts of final report
 - scenarios will lead to one recommendation

Thank you!