

Baltic Slurry Acidification

Reducing nitrogen loss from livestock production by promoting the use of slurry acidification techniques in the Baltic Sea Region

Priority area	Natural resources
Specific objective	Clear waters
Lead Partner	JTI - Swedish Institute of Agricultural and Environmental Engineering
Project budget	Total EUR 5,271,115



Background

Livestock manure is the main source of ammonia-nitrogen emissions in the Baltic Sea Region, which through atmospheric deposition results in a significant amount of nitrogen entering to the Baltic Sea. Ammonia emissions threaten also human health through the formation of particulate matter, which as a pollutant is estimated to have a high negative impact on human health.

Slurry acidification techniques (SATs) can be used to reduce the ammonia losses from livestock manure in livestock housing, manure storages and from the fields during the application of manure. These techniques have been widely tested and implemented in Denmark. The three main types of SATs are:

- In-house acidification of livestock slurry
- In-storage acidification of stored livestock slurry
- In-field acidification of livestock slurry during field spreading.

Objectives

The main objective of Baltic Slurry Acidification is to promote the implementation of slurry acidification techniques throughout the Baltic Sea Region to reduce airborne eutrophication and create a more competitive and sustainable farming sector.

Core activities focus on establishing pilot SAT installations and field trials in countries around the Baltic Sea that will be used to disseminate knowledge to target groups via field walks and demonstrations to provide local experiences to help build end user confidence in these technologies. The project will further clarify technological aspects and potential risks of acidification, analyze the environmental and economic implications, conduct market analysis and suggest policy recommendations that could help dissemination of SAT technology in the Baltic Sea region.

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Work packages

WP1

Leader: PP1 JTI - Swedish Institute of Agricultural and Environmental Engineering
Communications: PP4 BSAG

WP2

Leader: PP7 Institute of Technology and Life Sciences + PP1 JTI
Partners: PP 1, PP3, PP5, PP6, PP7, PP8, PP9

WP3

Leader: PP5 Ltd Latvian Rural Advisory and Training Centre + PP20 enAgro Plc
Partners: All partners

WP4

Leader: PP6 Lithuanian Agricultural Advisory Centre + PP1 JTI
Partners: PP1, PP3, PP4, PP5, PP6, PP7, PP8, PP9, PP10, PP12, PP14, PP16, PP17, PP18, PP19

WP5

Leader: PP3 Estonian Crop Research Institute + PP1 JTI
Partners: PP1, PP3, PP4, PP5, PP6, PP7, PP8, PP9, PP10

WP6

Leader: PP20 enAgro Plc + PP11 Union "Farmers' Parliament"
Partners: PP1, PP3, PP4, PP6, PP7, PP8, PP9, PP11, PP12, PP16, PP20

The responsibility of project communication and dissemination of information is shared between the work packages and coordinated by Baltic Sea Action Group as a part of WP1.

Partners

PP1: Lead Partner: JTI – Swedish Institute of Agricultural and Environmental Engineering, SE
PP3: Estonian Crop Research Institute, EE
PP4: The Foundation for a Living Baltic Sea (Baltic Sea Action Group - BSAG), FI
PP5: Ltd Latvian Rural Advisory and Training Centre SIA, LV
PP6: Lithuanian Agricultural Advisory Service, LT
PP7: Institute of Technology and Life Sciences (ITP), PL
PP8: Agricultural Advisory Centre in Brwinow Branch Office in Radom, PL
PP9: State Agency for Agriculture, Environment and Rural Areas of the German Federal State Schleswig-Holstein (LLUR), DE
PP10: Blunk GmbH, DE
PP11: Union "Farmers Parliament" (ZSA), LV
PP12: Association of ProAgria Centres, FI
PP14: Dotnuvas Experimental Farm, LT
PP16: The Rural Economy and Agricultural Society, SE
PP17: Br Goransson Ab, SE
PP18: Animal Science Institute, Lithuanian University of Health Sciences, LT
PP19: Vecsiljani ZS, LV
PP20: enAgro Plc, DK

Project timeline

The project is three years long; starts March 1, 2016 and ends February 28, 2019.