

Baltic Deal

PUTTING BEST PRACTISES IN AGRICULTURE INTO WORK

FLAGSHIP PROJECT IN THE EU STRATEGY FOR THE BALTIC SEA REGION
CO-FINANCED BY THE BALTIC SEA REGIONAL PROGRAMME 2007-2013
CO-FINANCED BY THE NEFCO/NIB BALTIC SEA ACTION PLAN TRUST FUND



FEDERATION OF
SWEDISH FARMERS



KNOWLEDGE CENTRE FOR AGRICULTURE



Ltd "Latvian Rural Advisory and Training Centre"



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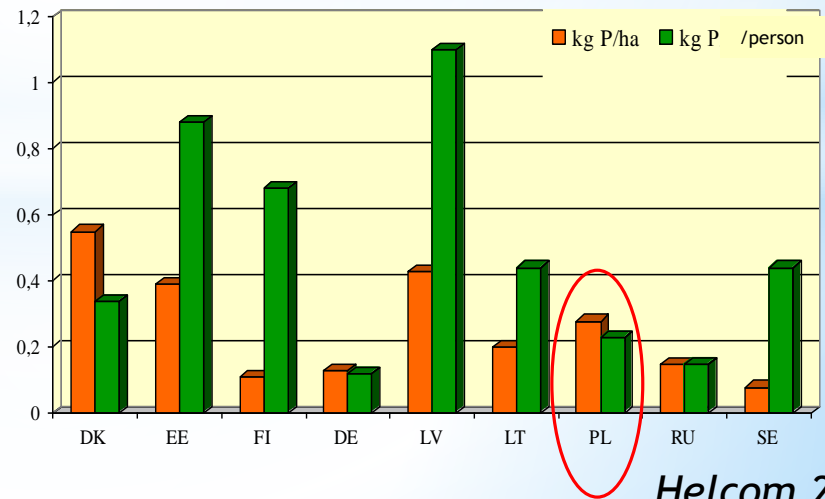
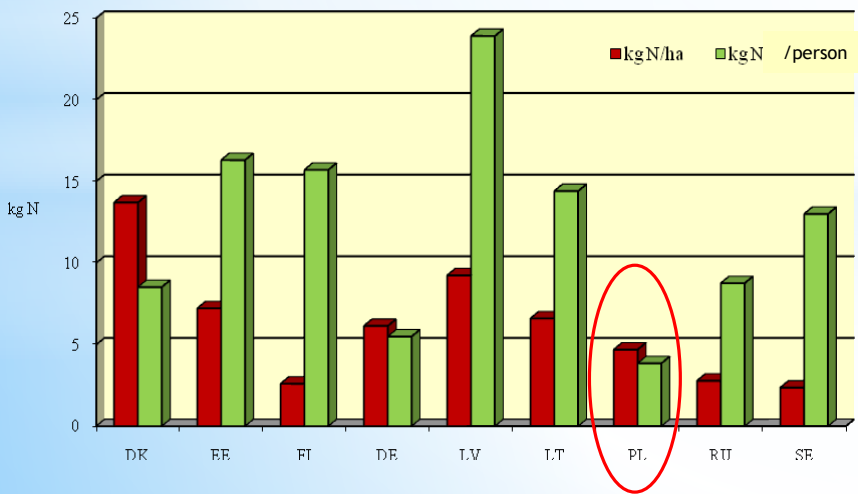
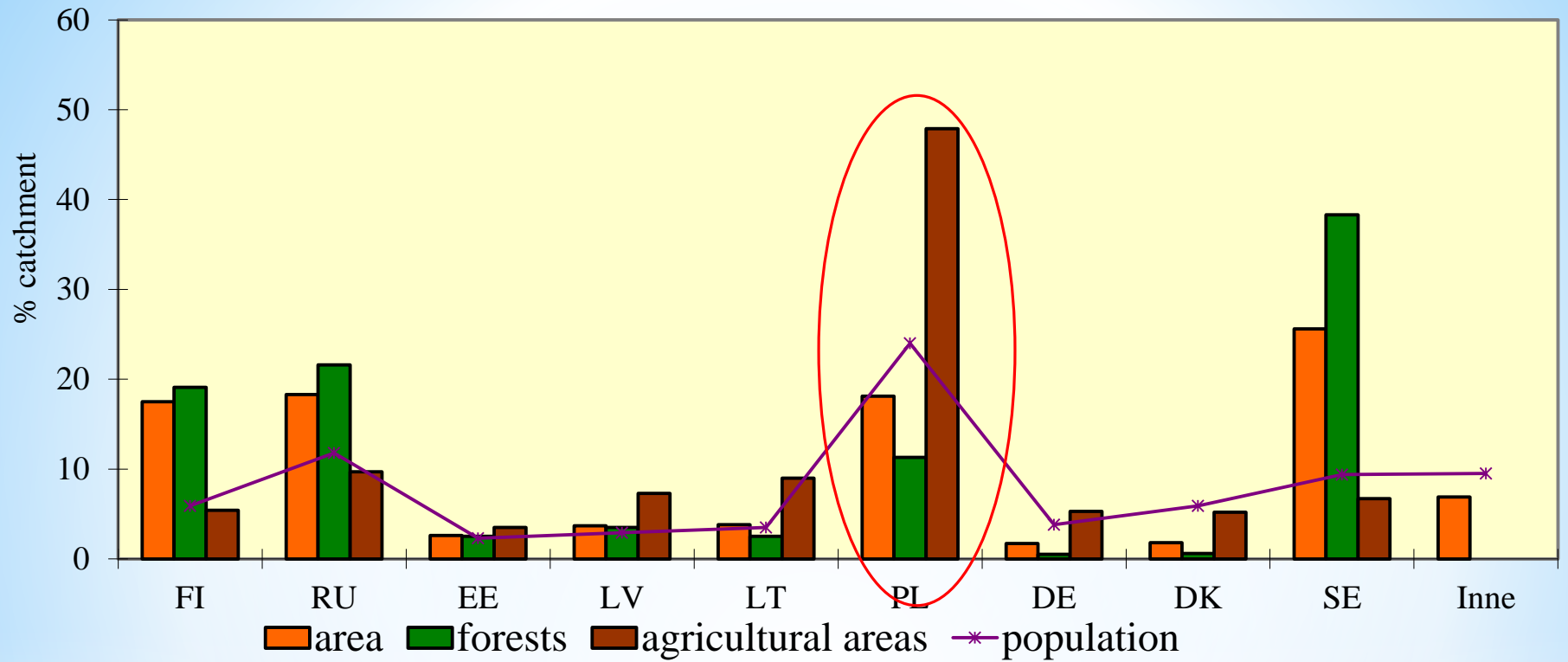
Rural Development Foundation



MTK

WHAT'S THE DEAL?

- ❑ Eutrophication indicates a disruption of the ecosystem caused by high loads of nutrients. It is evident as. E.g. excessive algal blooms and dead areas of sea bottom.
- ❑ The loads of nutrients may be natural background losses from the soil or the result of human activities and losses from agriculture, wastewater, industry and forestry.
- ❑ 85 million people live in the area around the Baltic Sea. They all affect the water eco-system by living, eating, working and travelling.
- ❑ It will take a long time to restore the Baltic Sea to its natural state.
- ❑ Achievements today will be measurable in 30-50 years, i.e. around 2050.
- ❑ Further improvements in agricultural practices can reduce nutrient losses significantly.



SOURCES OF FUNDING AND SCHEDULE

Finance sources:

- Baltic Sea Region Programme
2007 - 2013



- NEFCO/NIB Baltic Sea Action Program
Trust Fund



The project duration:

START: october2010

End: september 2013

Main project partners

START: october2010

End: september 2013



The Federation of Swedish Farmers (LRF), Sweden



Central Union of Agricultural Producers and Forest Owners (MTK), Finland



Lithuanian Agricultural Advisory Service (LAAS), Lithuania



Agricultural Advisory Centre in Brwinow Branch Office in Radom (CDR), Poland



Rural Development Foundation (MES), Estonia

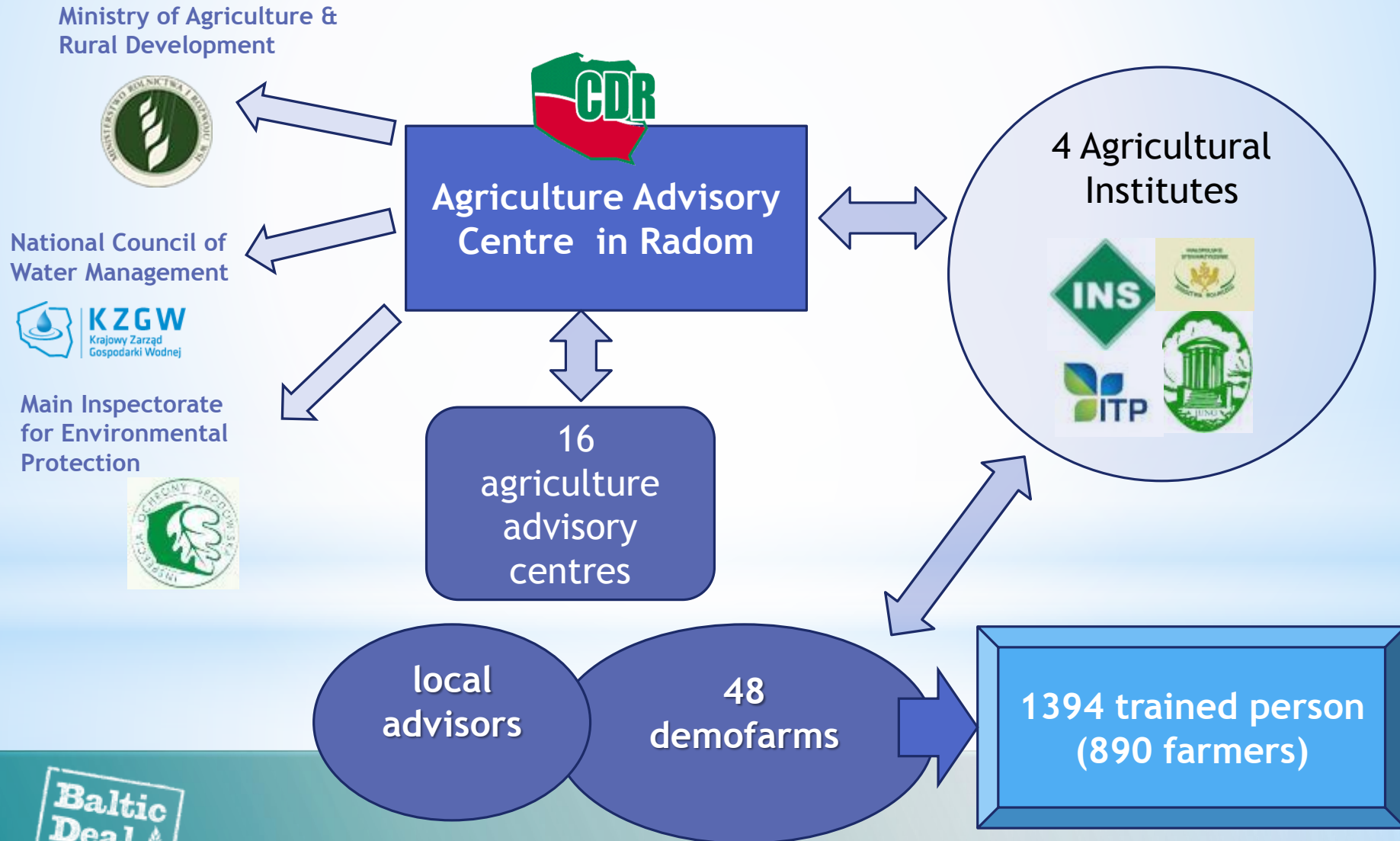


The Knowledge Centre for Agriculture (VFL), Denmark



Latvian Rural Advisory and Training Centre (LRATC), Latvia -

Actors involved in the BD project in Poland: Agric. Institutes, advisors, farmers



Cooperation results

WHAT HAVE RECEIVED...

Researcher

- Good contact with farmers
- Crop rotation data
- Crop yield
- Animal production
- Total output
- Total input
- Technology data
- Soil content
- Water pollution
- Manure handling
- Feedback

Advisor

- Production data
- Advisory tools
- Agri-environmental measures
- Total output
- Place for workshops
- Guides
- Manuals
- Web page
- Information and news from abroad

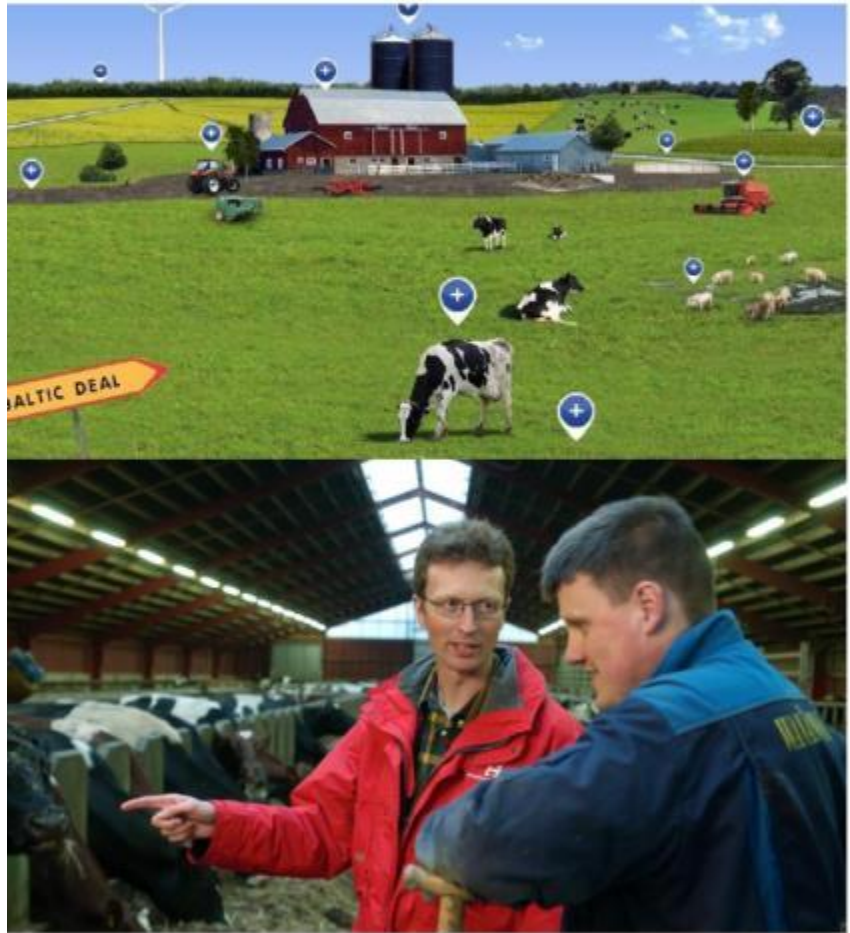
Farmer

- Free of charge soil analyze
- Fertilization recommendation
- Agri-environmental measures advisory
- Nutrient balances
- On-farm water contamination info
- Free of charge advice
- Manuals
- Contacts and news from other farmers and abroad

Innovation Platform?

AIM OF THE PROJECT

- Supporting farmers to reduce nutrient losses from their farms, while maintaining high production and competitiveness.



Show measures by:

- MEASURE**
- Fertilisation
- Manure management
- Soil structure and tillage
- Plant cover and buffer zones
- Nature areas and grasslands
- Wetlands, drainage and irrigation
- Precision farming
- New measures
- Selection of measures

Buffer zones

Category: [Plant cover and buffer zones](#)
 Tags: [erosion](#) | [leaching](#) | [leakage](#) | [Nitrogen](#) | [Phosphorus](#)

Primary purpose



Photo: Sindre Langnes

The buffer zone runs like a green thread through the landscape. The main purpose of the buffer zones is to function as a filter for soil particles and phosphorus leakage.

Buffer zones decrease mainly the losses of particulate phosphorus from arable land. The zones also contribute to reducing the leakage of other nutrients and presence of pesticides in rivers, lakes and seas.

Other positive effects increased biodiversity and enriched landscape. Buffer zones can also be used for recreation.

Description

The risk of surface runoff is biggest on hilly fields and in times of heavy rains. The risk is higher also when the crop is fairly undeveloped so that the soil is poorly covered by the crop, the roots do not bind the soil and the crop has a small water consumption.

Buffer zones are generally 6-20 meters wide, located on farmland and next to watercourse (creek, river or lake).

The buffer zones should not be fertilized and they need to be managed by mowing or grazing. If they are managed by mowing it would be good to take away the mowed plant material. This removes the nutrients that have been taken up by the plants to be released.

Print page

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RELATED DOCUMENTS

- [Svaidssoner-Swedish](#) (724 kB)
- [Environmental measures in Denmark in English](#) (1 MB)
- [Bufferzones in Denmark](#) (2 MB)
- [Bufferzone farm economy - Ireland](#) (244 kB)
- [Buffer-zone-farm-economy- Latvia](#) (56 kB)
- [Buffer zone farm economy - Denmark](#) (538 kB)

LINKS

In Danish: [Vandløb, træmer og randzoner](#), Landbrugsinfo

In Swedish: [Praktisk handbok för svaidssoner och bäddare](#), Jordbruksverket et al.

End-user material on website

AIM

DESCRIPTION

PROVEN EFFECT

THE ECONOMIC IMPORTANCE



→ [Selection of measures](#)



→ [Fertilisation](#)



→ [Manure management](#)



→ [Soil structure and tillage](#)



→ [Plant cover and buffer zones](#)



→ [Nature areas and grasslands](#)



→ [Wetlands, drainage and irrigation](#)



→ [Precision farming](#)

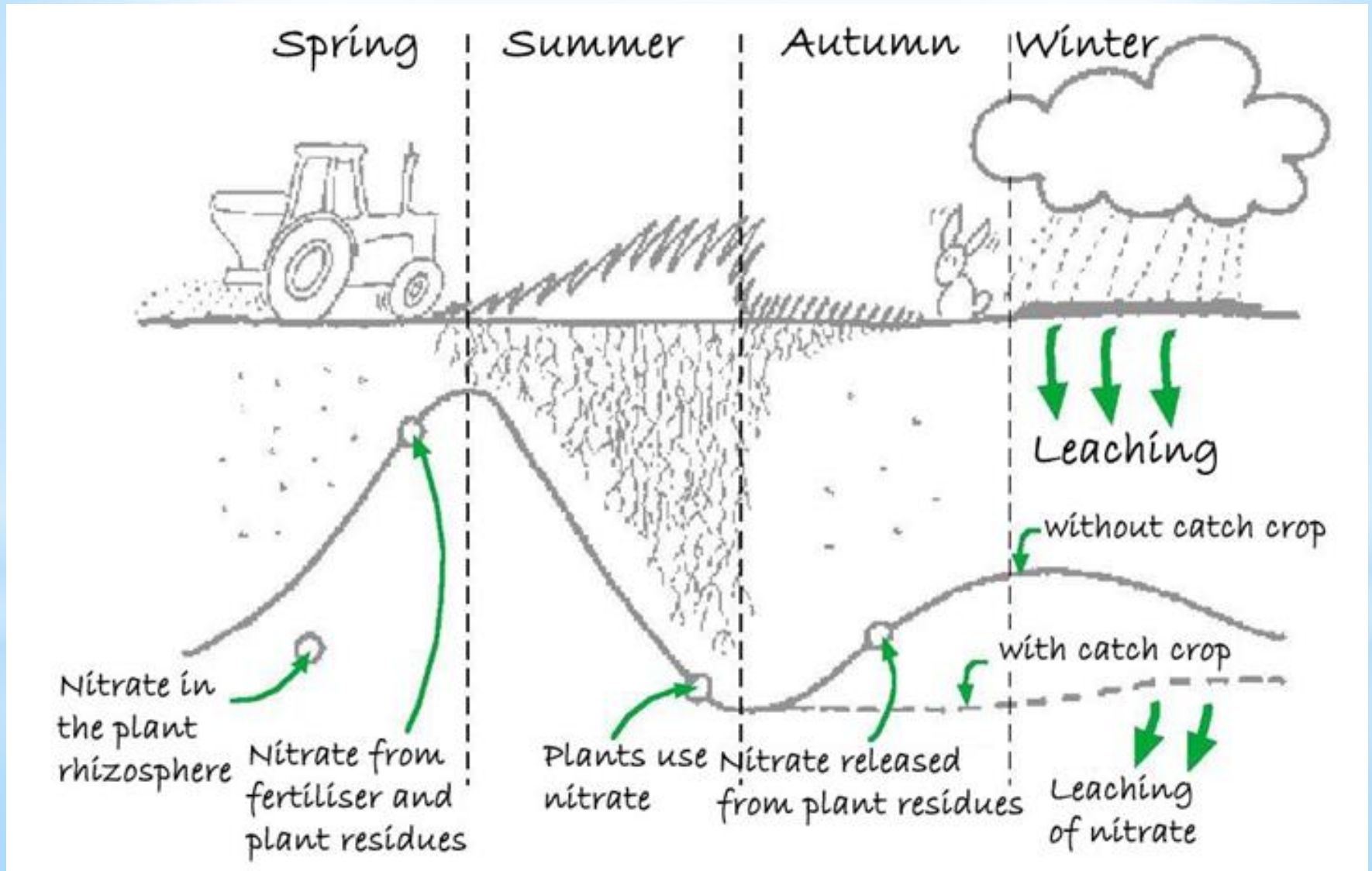


→ [New measures](#)

Storage and use of slurry



Catch crops



Constructed wetland





Show measures by:

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- Precision farming
- New measures

Print page

Maintaining good soil structure

Category: [Soil structure and tillage](#)

Tags: [leaching](#) | [Soil erosion](#) | [Soil quality](#) | [Soil structure](#)



Soil sample. It's also good to know what it looks like below the surface. Photo: Airi Kulmala.

Primary purpose

Soil structure strongly affects crop growth, but also the risk of nutrient leaching and erosion. If the structure is poor plants do not grow well, which decreases nutrient uptake. Moreover, poor soil structure increases the risk of surface run-off and erosion. Besides the environmental risks, poor soil structure also affects farm finances, e.g. in the form of yield losses.

Description

Forming of soil structure

Individual soil particles, the way they are assembled as aggregates and soil pores between them define the soil structure. Clay particles and some humus substances play an important role in the formation of granular structure and electric charges also play a role. Single-grain structure, where the individual soil particles do not bind together, is typical for coarse soils, e.g. sandy soils. The structure of fine soils can be massive, i.e. single particles form a cohesive mass.



Soil fertility



Soil compaction

LINKS

[In Swedish: Markpackning, Greppa näringen](#)

[In Danish: Metoder til visuel vurdering af jordstruktur, LandbruqsInfo](#)

[In Finnish: Peltomaan laatutesti, Agropolis Oy](#)

[In Swedish: Markstrukturindex, SLU](#)

<http://www.balticdeal.eu/measure/tillage/>


Tillage -- Mozilla Firefox

Plik Edycja Widok Historia Zakładki Narzędzia Pomoc

Tillage -- x Maintaining good soil structure -- x +

www.balticdeal.eu/measure/tillage/ W - Wikipedia (pl)

Aktualności

 Putting best agricultural practices into work

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Plant cover and buffer zones

Nature areas and grasslands

Wetlands, drainage and irrigation

Precision farming

New measures

Tillage

Category: [Soil structure and tillage](#)

Tags: [Soil erosion](#) | [Soil structure](#) | [Tillage](#)

Purpose




Photo: Airi Kulmala

The main objective of tillage is to prepare a good seedbed and ensure good subsequent plant growth. Tillage is also needed when different substances like lime, manure or crop residues are to be mixed into the topsoil.

Various practices are used from no-tillage to conventional tillage with plough. There is no method that is best in all situations, so tillage method should be selected based on e.g. soil properties, crop type and environmental effects of different methods.

Description

Different tillage practices

There are many tillage practices in addition to conventional ploughing and they can be classified and defined in many ways. The main point is the volume of soil treated during tillage.

Conservation tillage can be defined as e.g. "a system of crop production with little, if any, tillage that maintains at least 30% of the soil surface covered by residues after planting".

No-till and direct drilling systems are forms of conservation tillage. In these systems

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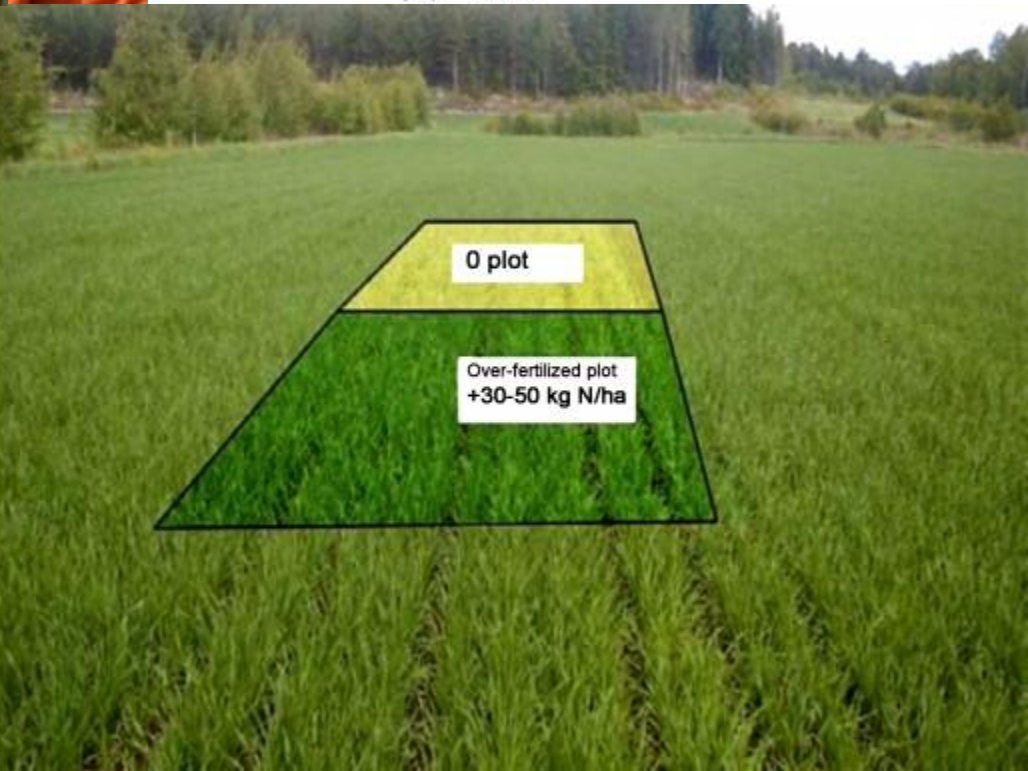
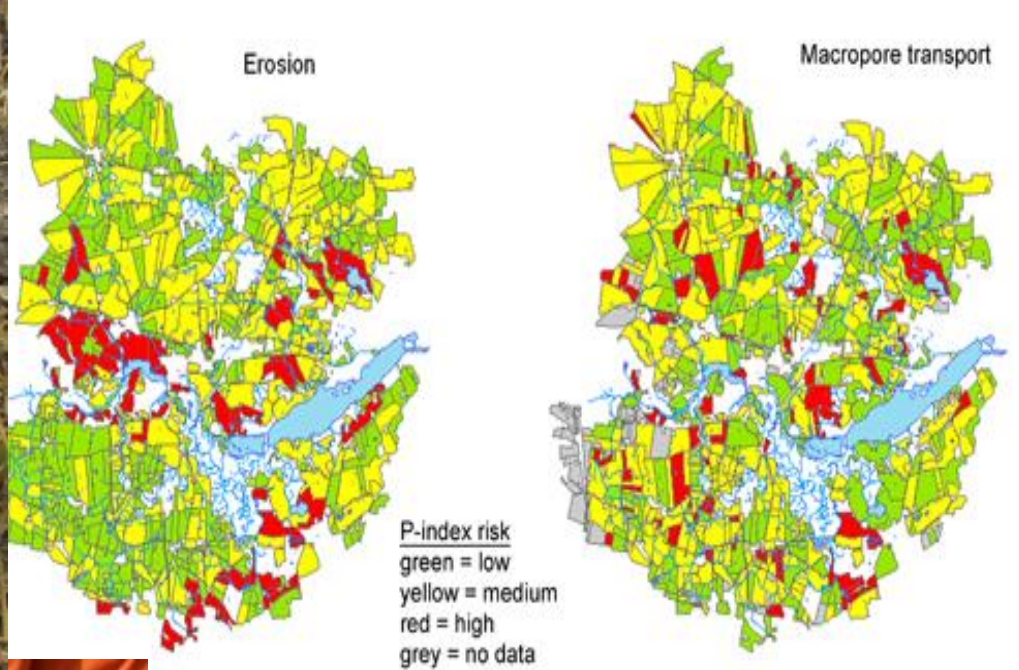
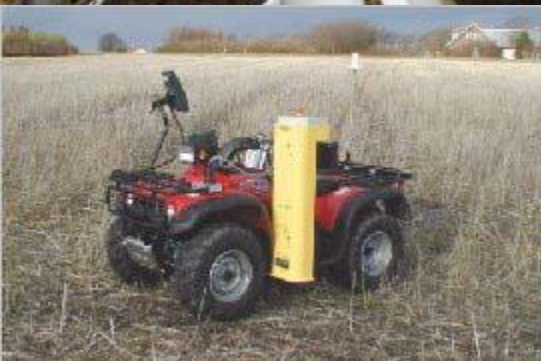


Manure handling



Composting





Reports and analysis

- **Guidelines for agri-environmental practices for farmers and advisors**

http://www.balticdeal.eu/measures/selection_measures/

- **Recommendations for the introduction of new agri-environmental practices**

<http://www.balticdeal.eu/news/recommendations-of-new-agri-environmental-measures/>

- **Guidelines for the farming on the catchment area**

<http://www.balticdeal.eu/documents/guideline-a-checklist-for-farmers-with-collective-activities-in-catchments/>

WHAT HAS BEEN ACHIEVED?

Creation of a strong co-operative platform between researchers, farmers' organizations and advisory organizations around the Baltic Sea.

Development of a common strategy for the Baltic Sea region to strengthen the agricultural advisory services.

Establishment of a demonstration farm network of more than 100 farms surrounding the Baltic Sea.

Demonstration of cost-effective and sustainable measures for farmers.

A significant increase in the speed of innovation and technology diffusion across national boundaries.

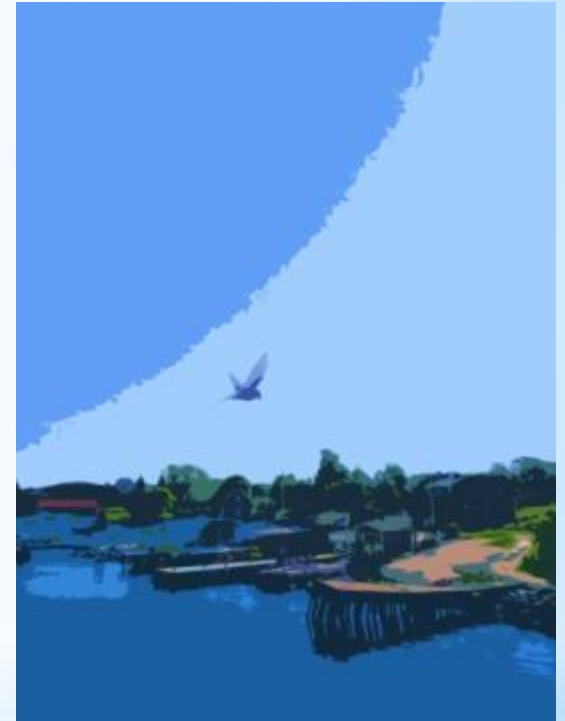
HOW MUCH – HOW MANY

2500	FARMERS REACHED
1800	MEASURES AND INVESTMENTS MADE OR PLANNED
300	EVENTS
300	ADVISORS
117	DEMONSTRATION FARMS
50	AGRI-ENVIRONMENTAL MEASURES IN A TOOLBOX
7	COUNTRIES: DENMARK, ESTONIA, FINLAND, LATVIA, LITHUANIA, POLAND, SWEDEN
5	ADVISORY ORGANIZATIONS
4	MILLION EUROS
3	YEARS: 2010–2013
2	FARMERS' ORGANIZATIONS
1	MISSION: LESS NUTRIENTS FROM FARMS INTO THE BALTIC SEA

Website

- For example

<http://www.balticdeal.eu/measure/maintaining-good-soil-structure/>
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**Thank
You**