

Sweden

- **National territory** 45 million hectare
- **Agricultural area** 3.1 million hectare
- **Arable land** 2.7 million hectare
- **Average area of arable land per holding** 38 hectare
- **Number of agricultural holdings** 71 000 holdings
- **Number of livestock holdings** 29 500 holdings



History

- **1969: Environmental Law: Reduce discharges, which could lead to pollution of watercourses, lakes and sea**
- **Mid 1980: Political agreement HELCOM and OSPAR: 50 % reduction, first vulnerable zones and action programmes**
- **1988: New vulnerable zones and a general action programme to reduce nutrient losses from agriculture**
- **Mid 1990: New legislation: winter crop cover and measures to reduce ammonia emissions.**
- **1995: Member of EU**

Environmental and Rural Development Program for Sweden 2000-2006

- Support for investments: manure storage, changes from solid to slurry systems, manure injection equipments, changes in animal housing
- Cultivation of catch crops and spring cultivation
- Riparian strips: 6 to 20 metres
- Wetlands and ponds: Investment and management



Environmental objectives

- **15 environmental quality objectives**

No eutrophication

Nutrient load must not have a negative effect on human health or biological diversity

For each environmental quality objective: interim targets, measures and strategies

By 2010 waterborne antropogenic nitrogen emissions in Sweden into the sea south of Åland Sea will have been reduced by 30 % compared with 1995 levels.

Programme to Reduce Nutrient Losses From Agriculture

- **Legislation**
- **Environmental taxes**
- **Voluntary instruments**
- **Extensions service and information**
- **Research and development**



Focus on Nutrients

- Feeding strategies
- Nitrogen and phosphorus strategy
- Nutrient balance
- Crop and crop-rotation strategy
- Planning catch crops, riparian zones, wetlands,
- Soil compaction
- Handling and use of plant protection products



Sweden: Implementing Nitrates Directive

- **1995: Previous vulnerable zones and action programmes**
- **1998 New measures,**
- **1999 Formal notice: new measures**
- **2001 Formal notice: vulnerable zones**
- **2002 New vulnerable zones**
- **2002 Reasoned opinion: vulnerable zones**
- **2003 New vulnerable zones and action programmes**

Lesson learned

- Deep investigation – vulnerable zones 1994-1995.
- Some difficulty to change old measures
- Sometimes difficult for farmers to understand the measure
- Not enough in with mandatory measures in Nitrates Directive to reach objectives: Swedish RDP
- The entire flow of nutrients on a farm: Focus on Nutrients

Indelning i produktionsområden

