

Irrigation and increasing water yield



Summary

Irrigation is critical to ensure yield and economic profit in plant production in Holland, Germany and Denmark. Climate changes resulting in drier summers and less rain in the growing season can increase the demand for irrigation, and increase the pressure on the groundwater resources. There is a potential to increase the water yield by improving the irrigation systems. A study trip to Holland included a presentation of sensors and an irrigation planner to predict irrigation needs, alongside a demonstration of new irrigation techniques to improve the water yield. Also, an example of the challenges to ensure sufficient irrigation permits in Denmark was shown.

Main Benefits

General aspects

- » Irrigation is important to ensure sufficient yield in plant production.
- » Present legislation and new restrictions to irrigation in the upcoming water plans may result in a lack of irrigation permits in Denmark.
- » There is a need to ensure a higher water yield, in order to be able to increase irrigation, without increasing the use of ground or surface water.
- >> There is a need for tailor made solutions on drought, both regarding technique and legislation, by using the potential of the water system.

Economic/job creation

- » Development of new irrigation models and techniques can bring a substantial economic benefit
- » Irrigation models and techniques can be exported, and create jobs in EU
- » Better irrigation techniques can increase crop yield, and bring economic benefits to farmers and the society.

Innovative aspects

- » New irrigation techniques can increase the water yield, in order to ensure the water for the increasing demand for irrigation, without increasing the use of ground or surface water.

Boosters for Implementation

- » Projects to support research, demonstration and documentation in order to ensure the development and implementation of new irrigation technology.
- » Cooperation between EU countries on developing models to predict the environmental impact of using groundwater for irrigation.
- » Demonstration farms or demonstration on farms, which will show how the use of new irrigation technology can optimize the use of water for irrigation.
- >> Cooperation between EU countries on developing legislation based on tailor made solutions.

Barriers for implementation in Denmark and The Netherlands

- » Farmers' lack of awareness of new irrigation technology.
- » Funding new irrigation technology.
- » Farmers' lack of knowledge of how to use new models and irrigation technology.
- >> Gap between national legislation, regional legislation and legislation based on a water system.

How to overcome barriers

- » Local scale documentation of new irrigation technology.
- » EU or national funding of new irrigation technology, and/or documentation of the economic benefits by using "new irrigation technology."
- » Information and communication on national level on how to use new irrigation technology.
- >> Exchange knowledge on water system based legislation.

Policy Recommendations

- » Support and facilitate innovation and documentation of new irrigation technology.
- » Ensure technical knowledge to policy makers about the impact of irrigation with groundwater on rivers.
- » Support and facilitate information exchange of knowledge about irrigation technology between EU countries.
- >> Support and facilitate innovation on water system based legislation.

More Information

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