



Organic - part of the solution!

WATER: organic farming makes every drop count

It's basic: for human and ecosystem health, water must be available and it must be clean. Water scarcity and contamination problems are reported by the European Environment Agency for many regions of the EU, and mitigation of both is a major financial burden. Agriculture bears a large share of responsibility for water consumption and contamination. EU agriculture must conserve and protect water, and organic can deliver on both counts.

Organic agriculture for safer water supplies

Because healthy soil is at the core of successful organic farming, many organic practices are designed to promote it, such as multi-stage crop rotations; the return of organic matter to the soil in the form of animal manure, compost or crop residues; and year-round soil coverage with intertillage, undersown crops or perennial forage. These practices increase Soil Organic Carbon (SOC) and promote soil biological activity, with benefits for soil structure. Thus, soils under organic management show the following characteristics:

- **Less water is consumed in organic farming:** higher levels of soil organic matter, a consistent feature of organic systems, increase water retention capacity and reduce need for irrigation. The practice of permanent soil cover widespread among organic farmers intensifies this effect.
- **Water conservation** is a concern in organic farming. It is incorporated as a basic principle into the EU organic regulation (EU regulation 834/2007), so that careful attention must be paid to choosing appropriate and innovative irrigation systems.
- Prohibition of synthetic pesticides and fertilizers in organic agriculture is highly significant for groundwater; danger of **contamination is eliminated**.
- Lower livestock densities on organic farms contribute to **improved quality of surface and ground water**, because of the reduced nitrogen input and almost closed nitrogen cycles.
- Farm comparisons show that nitrate **leaching rates per hectare are lower on organic than on conventional fields** by 57%. Leaching rates per unit of output are comparable. Simple steps are possible to remedy leaching rates in many cases, so further improvement in the situation is expected; the outlook is encouraging.

EU policies must ensure responsible water management

The EU Water Framework Directive adopted in 2000 (Directive 2000/60/EC) defines water as "a heritage which must be protected, defended and treated as such". Organic farming should be supported as a system which has strong stewardship credentials and contributes directly to promotion of sustainable water use and prevention of groundwater pollution.

Organic farming can provide best practice examples for water management in agriculture. For instance, it shows how crop rotations can diminish pest pressure and significantly reduce pesticide use. Diversified crop rotations should become a compulsory point under cross compliance rules for all farmers who receive CAP payments.

As a basis for planning future action on water, an objective and definitive assessment of sustainable water management practices for European agriculture is sorely needed.