

# Report on

## Session „Effects of energy crop cultivation on watercourses“

Session chair: Saskia Knillmann  
Minute taker: Viktoria Haider

# Session “ Effects of energy crop cultivation on watercourses”

## Main topics:

- § Changes in nutrients and pesticides due to expanding cultivation of energy crops (change in crops, conversion of land) at the landscape level (SWAT, HYPE)
- § Comparison of annual/ perennial energy crops in terms of applied nutrients and pesticides
- § Synergies between energy crop cultivation and protection of aquatic ecosystems, First field trials using short rotation coppices as buffer strips in Central Germany (Thuringia)

## Main results and outcomes:

- § Reduced erosion and nutrient exposure due to the use of SRC as riparian buffer strips
- § Models for water quality show high dependency on local conditions, no overall prediction and solution on energy crop cultivation possible
- § Approaches with a low of pesticides and nutrients:
  - Ø Perennial crops
  - Ø Mixed cropping systems
  - Ø Sustainable crop rotation

## Outlook and research need:

How to transfer research knowledge to the field?

- § Implement incentives to support approaches with low nutrient and pesticide use
- § Increase public acceptance and education of farmers
- § Integrate economic parameters in models on water quality
- § Development of regionally adapted strategies for the expansion of energy crop cultivation (action plans, incentives)