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## **Sensor-based irrigation control for potatoes** (German abbreviation: SeBeK)

**Project management:** Prof. Dr.-Ing. Klaus Röttcher

**Summary:** The aim of the project is to develop novel methods for precise, optimised irrigation management of potatoes by determining watering needs more accurately, and measuring the current temperature and Crop Water Stress Index (CWSI) in the immediate vicinity of the crop. The measuring procedure itself is to be reviewed in detail and improved in order to ensure that the current temperature of the potatoes can be measured reliably over the entire irrigation period if possible, and for all relevant weather conditions, if possible. Measuring technology developed for this purpose is to be checked for its technical suitability (accuracy and robustness), as well as for cost-effectiveness. The project will give rise to initial experiences with a CWSI-based irrigation management system for potatoes in the Uelzen area. The results will allow a technical, agricultural and economic evaluation of this approach involving precision irrigation.

**Funding:** European Agricultural Fund for Rural Development

**Duration:** 2016 – 2019

**Funding amount:** 782,791 €

**Organisational unit:** Faculty of Civil and Environmental Engineering

**Research area:** Integrated Water and Soil Protection

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