

Decision aid for efficient irrigation in orchards

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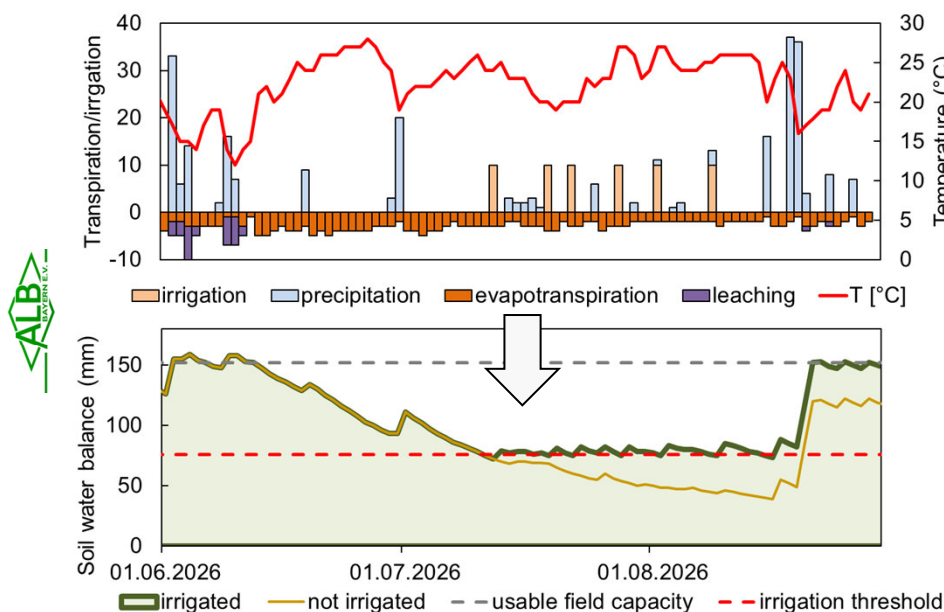
Fruit-Growing Extension, Plants and Plant Products, Agroscope, 8820 Wädenswil; www.agroscope.ch

Interreg project: Watering apples according to their needs

- Changing rainfall patterns and rising temperatures are leading to increasingly frequent and prolonged **dry periods** in Switzerland too. 2026:-50% precipitation.
- **Efficient irrigation** is necessary to conserve scarce water resources whilst optimising fruit quality.
- Objective **decision-making tools** for sustainable irrigation are being developed as part of an Interreg project (2023-2027, Lake of Constance region).



Irrigation based on the soil water balance model ALB (2026: 132 m³/ha, -83%)

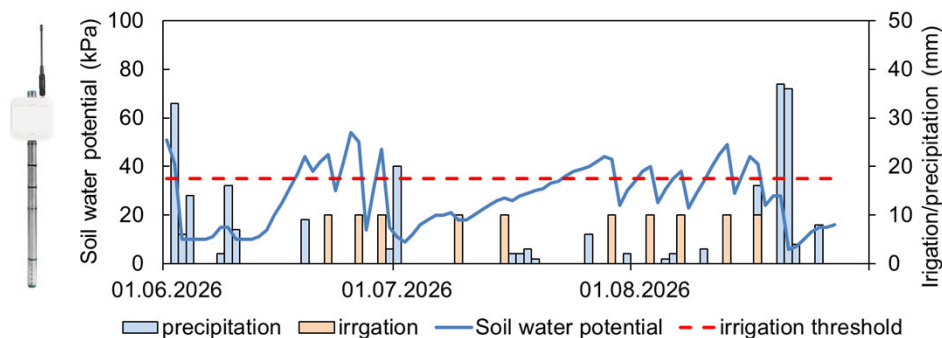


Comparison with

- Non-irrigated control (0 m³/ha)
- Interval irrigation (790 m³/ha)
- Natural rainfall vs. rain cover

- + Cost-effective
- + Low maintenance
- + Trial: good correlation with reality
- No direct monitoring of soil values
- Low level of trust

Irrigation based on soil water potential (2026: 241 m³/ha, -69%)



- + Objective data
- + High level of trust
- Expensive to buy
- Costly to maintain
- Incorrect values and significant variation possible