

Innovative ideas for supplying water to vines?

Interview with Dr. Daniel Heßdörfer, project manager of the Bavarian State Institute for Viticulture and Horticulture Veitshöchheim (LWG) irrigation project in Thüngersheim

The irrigation project run by the Bavarian State Institute for Viticulture and Horticulture (LWG) didn't just make headlines in the specialist press, but it was also a major news story in some national media: "Israeli solution for new irrigation system" was the headline in the newspaper Handelsblatt. Our interviewee Dr. Daniel Heßdörfer isn't just the project manager of this pilot project in Thüngersheim, but is also our coordinator for the "Digitisation in irrigation management" session at the 63rd International DWV-Congress on 5 November 2018.



What can we learn from the Israelis when it comes to irrigation?

DH: First and foremost how to use the technology available effectively. Because of the various different attempts made to irrigate vines, we know exactly at what time and with what intensity any additional irrigation of the vines ensures the quantity and improves the quality of the grapes. One of the biggest problems of an effective irrigation strategy which hasn't been solved so far is the lack of a water supply infrastructure. Here we can really learn a lot from our partners in Israel.

Climate change sends its regards! What are the main problems of getting water to the vines in our part of the world? Sometimes too much, sometimes too little, rarely the right amount?

DH: People associate climate change and its consequences for agriculture with plants

drying up. However, the effects of climate change on agriculture or viticulture are extremely varied. In Franconia in northern Bavaria in 2017, the period when the grapes were ripening was marked by damp weather conditions, which had a big impact on the health of the grapes later on. According to climate change projections, extreme weather events are set to become more common-place. This is a big problem for viticulture in the area.

How much can digitisation help to mitigate these problems?

DH: Essentially, digitisation can't do anything to reduce the impact of climate change on viticulture. However, digitisation can still help us to recognise the problems at an earlier stage and to counteract them using appropriate means. The fact that increasing temperatures will result in more frequent water deficits for a number of wine-growing regions is unaffected. Already, more than 70 percent of the water used by humans worldwide is for agriculture. With digitisation, we can encourage effective irrigation management and at the same time protect water resources as well as possible.

What hurdles do you face when investing in innovative projects? Too much bureaucracy? Too little money or help from the government?

The biggest challenge for winegrowers at the moment is keeping an eye on the different technological developments and knowing how to invest sensibly. This requires reliable information on the economic, ecological as well as the social impact of

this technology – in other words, a modern sustainability assessment.

As the presenter of the “Digitisation in irrigation management” session, you would like to persuade winemakers to sign up for it. How are you going about that? Will the focus in Stuttgart be on Israel too?

DH: Winemakers should be aware that climate change will pose major challenges for the viticulture industry in the decades to come. Water is already a key element influencing wine production. This is why the production of high-quality wines needs smart solutions when it comes to the efficient use of water. Viticulture 4.0 already has a significant influence on the

development of the industry worldwide, and it is predicted that this development will continue to in-crease. In the session we will discuss current questions in the industry, and pre-sent and discuss new trends related to digiti-sation in irrigation management. Of course we’ll also have an eye on the latest develop-ments in Israel! We shouldn’t lose sight of the changes which we can expect in future, which is why I invite all interested parties to take part in the “Digitisation in irrigation management” session.

The interview was conducted by
Dr. Rudolf Nickenig
and published in
ddw der deutsche weinbau N° 11/2018