Making the Best Use of Strictly Limited N Fertiliser

Cyril Tappolet produces cereal seed on his farm in Schaffhausen, where he is field-testing site-specific fertiliser application. He is surprised how easy it is.

Smart Technologies
Experimental Station (in german)

"I often get comments and questions from passers-by when I'm fertiliser spreading, and I'm keen to show people that I'm using the latest technologies. With the 10 % tolerance margin for nitrogen applications being withdrawn in 2024, I had been wondering how to make the best use of the strictly limited fertiliser inputs. The Smart-N project (see box) came at just the right time for me.

I was pleasantly surprised just how easy it is. I create the application map using the software, pop it on a USB stick and transfer it straight to the tractor's terminal. The fertiliser spreader automatically applies the calculated doses at the right place. This technology is already used on many farms abroad.

However, you do have to familiarise yourself with the subject matter, which may be a barrier to some. Farmers need support and motivation to encourage them to use this system. In Switzerland, site-specific spreading is not worthwhile purely on financial grounds because our fields are simply too small, but I like working with this technology. It allows me to make optimum use of the available nitrogen to supply all plants optimally and produce the maximum number of viable seeds."

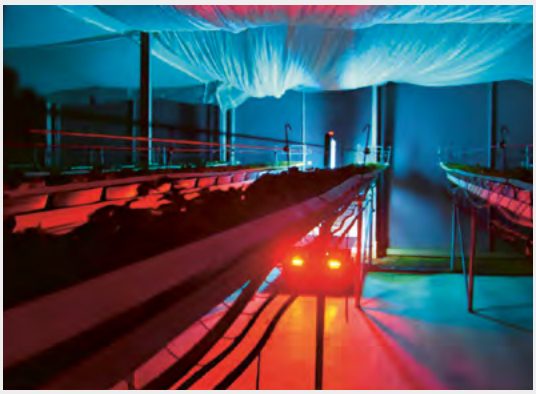
Lower nitrogen losses thanks to smart fertilising

The Smart-N project run by the Smart Technologies Experimental Station has shown that variable-rate fertilisation can reduce nitrogen losses in winter wheat by up to 22% without adversely affecting yields or quality. The project combines satellite images with soil and weather data to calculate precisely where and how much nitrogen is required.

News from the Other Experimental Stations

UV-C-Robot Combats Powdery Mildew in Strawberries

At night he drives unattended through the foil greenhouses treating the strawberry plants with UV-C rays: Agroscope is testing an innovative robot at a producer's in eastern Switzerland that could be a worthwhile alternative to plant-protection product use.



A Close Look at Swiss Alpine Pastures

The vegetation of Swiss alpine pastures is exceptionally rich and varied. The initial vegetation analyses on 14 alps highlight the high degree of specialisation of these plants.

Further information on the experimental stations