

## INFORMAZIONI PER LA STAMPA

### NovelFarm, at the height of the 4th Agricultural Revolution

*Take agriculture, add Big Data, AI, robots and blockchain and here we are ...  
On February 13th at Pordenone Fiere*

Sensors that look at the thickness of the leaves and at their color to recognize the needs of the plant of water and nutrients. Drones that photograph and monitor the dryness of the land from above, robots that collect ripe strawberries. Correlating data from the most advanced research centers, it is possible to disseminate information all over the world to manage the agriculture of the future, less and less sciencefiction and more and more solid reality.

The impact of new technology and methods is strong in all areas and there cannot be any real revolution if all the actors involved do not adapt to change. The NovelFarm session on automation (scheduled for Wednesday, February 13) will start by talking about the impact that this revolution has on the work of agronomists and the change in the professional skills required to manage an agriculture 4.0 farm. The new agronomical science is based not only on the knowledge of soil and substrates, nutrients, greenhouses, but must include proficiency in the workings of LED lights for indoor farming, in interpreting data from highly technological sensors equipped with Artificial Intelligence.

AI is the fulcrum of the second speech of the session, held by the Wageningen University researcher, Isabella Righini. Her work has shown how a greenhouse managed remotely using data collected by sensors is profitable as well as highly sustainable. Other examples in the agenda: PlantGeek, a research project on aquaponics in a controlled environment, which aims to analyse the interaction between fish, bacteria and plants to develop an automated aquaponics model; the container-like autonomous and automatic greenhouse built by Idromeccanica Lucchini and ENEA.

In new agriculture, data are used not only to increase production, they also help to ensure product quality and food safety, as explained by Vasileios Vallas of PlantHive.

From artificial intelligence to robots that can help the work of the man above all in conditions in which traditional farming automation is impossible for the geomorphological characteristics of the territory. In this case robotics turns out to be the only solution to avoid the abandonment of the agricultural lands. The speech is given by Professor Rezia Molfino, from the University of Genoa.

Research and discoveries are not owned by their authors, so the research data are shared securely on the blockchain. Marcello Donatelli, director of the Center for Agriculture and Environment Research of CREA, will talk about the platform that they are building together with Microsoft, to enhance research to support the Italian food chain, thanks to Cloud Computing Internet of Things, Artificial Intelligence and Blockchain.

All of this is on Wednesday, February 13 at Pordenone Fiere.

NovelFarm is not just technology. Here are some other anticipations. What are the potentialities of hydroponics in the health and nutraceutical world? Talking about cannabis, we'll listen to some researchers, trying to understand which are the ingredients for an optimal plant yield and quality. And again ... how can you make beer with hydroponic hops? And what about grapes growing soilless-ly? These are just some of the topics of the *food and non-food* session scheduled for February 14th.

**Further details and updates on Novel Farm are available on [www.novelfarmexpo.it/en/](http://www.novelfarmexpo.it/en/)**

**The exhibition is co-located with AquaFarm [www.aquafarmexpo.it/en/](http://www.aquafarmexpo.it/en/)**

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