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Four food tech trends to be aware of

The food industry isn't short of challenges right now. Growers face rising fertilizer prices and the effects of climate change, while food providers are dealing with increased transportation costs and low consumer sentiment.

Thankfully, innovators have developed a range of solutions to combat these difficulties and bring agriculture into the 21st century. These four are firmly on our radar ...

1. Mechanization

Humans have been mechanizing agriculture for centuries, but recent advances are particularly sophisticated. One exciting development is the advent of "grippers" - advanced robotics that can pick up and hold food like a human hand. For packaging materials that need to be folded sharply, fruit picking and other manual work, grippers are set to revolutionize the industry.

2. The Internet of Things (IoT)

IoT is infiltrating almost every sector - and agriculture is no exception. By integrating sensors, drones, satellite imaging and intelligence-based autonomous systems, farmers can obtain more granular insights than ever before - and use this information to grow food more efficiently and sustainably.

For example, farms can use sensors to detect nitrogen levels in crops, and combine this with satellite data to produce a variable rate application (VRA) map. This can be uploaded to a smart tractor, which then automatically disperses fertilizer according to the varying nitrogen levels across the field.

3. Sustainable Food and Packaging

With agriculture making up 11% of GHG emissions, scientists have been looking for sustainable alternatives - especially when it comes to proteins. Some companies have developed plant-based proteins that mimic the properties of traditional meat, while others are working to perfect lab-grown meat.

Mycoproteins (protein from mushrooms) can also be used to make meat substitutes. What's more, our fungal friends are the basis for a new type of packaging. This uses 12% of the energy consumed in plastic production and emits 90% less carbon dioxide. Crucially, the product also decomposes within 30-90 days.

4. AI-driven vertical farming

Vertical farming is growing! The market is set to expand by 25.2% annually this decade. In this exciting new field, innovative companies are deploying artificial intelligence to streamline the growing process. This high-tech approach allows 40% more plants per growing area, saves up to 95% of the water used by traditional processes, and has a 30-40% higher growth rate.

As the world experiences another agricultural revolution, Hazera is by your side. Contact us today to see how we can help.

Hazera is a global leader in the seed industry. Hazera brings expertise, commitment and support, combining decades of experience with state-of-the-art technology. Hazera breeds, develops, produces and markets varieties and seeds in a wide range of vegetable crops around the world.

Hazera's headquarters are situated in Israel and The Netherlands, with subsidiaries in eleven countries and an extensive distribution network providing services in over 130 additional markets. This worldwide presence enables us to be close to our customers. It allows us to offer technical support and to anticipate and respond to local needs by creating varieties that fit specific climates, growing conditions and market requirements.

Hazera is part of the Limagrain Group, an international agri-business based in France. Being a farmers' cooperative, the Limagrain Group understands the needs of its customers and has grown to become the largest seed company in Europe, specialising in vegetables, field crops and cereal products. Limagrain's vegetable seed division is the second largest company in the industry.