



Cerescon introduces the world's first selective asparagus harvesting robot

Dutch start-up safeguards asparagus cultivation in Western Europe

Heeze, April 13, 2017 – The Dutch high-tech start-up [Cerescon](#) is introducing the world's first automatic selective asparagus harvester, developed in close cooperation with Brabant, Limburg and German asparagus growers. The arrival of Cerescon's agricultural robot safeguards asparagus cultivation in Western Europe, which has an annual turnover of approximately €80 million in the Netherlands. In the rest of Europe, that amount is at least 10 times higher. Manually harvesting the white gold is an increasingly expensive activity. Moreover, obtaining the necessary thousands of seasonal workers is so difficult that it looked likely that larger growers would be forced to move their businesses to low-wage countries. That is no longer necessary.

The machine has a capacity of 40 hectares and works three rows at a time, thereby replacing 60 to 75 manual harvesters. It halves harvesting costs in comparison to manual harvesting. The Cerescon asparagus harvesting machine integrates all the necessary functions: motion detection, harvesting, plastic handling and sand bed restoration. The machine is expected to harvest a better quality of asparagus (less damage, less discoloration) and increase the yield for growers. The machine pays itself back in just over three seasons. The first machine will be delivered prior to the 2018 harvest season.

Underground detection

The machine consists of a detection module that detects asparagus underground, a robot that removes the asparagus from the ground and a sand bed restoration module. Cerescon has equipped the machine with a self-developed and patented detection method based on sensor technology. It detects asparagus underground before the white gold emerges from the soil and discolors. The robot cuts the asparagus underground and places it in a container. Immediately after harvesting, the sand bed is restored in order to maintain the quality of the asparagus all season. 'This selective harvester is the start of a new era in agriculture and horticulture,' says Ad Vermeer, CTO of Cerescon. 'Low grade seasonal work can be replaced by high-quality jobs and in addition to asparagus, there are many other crops that need to be harvested selectively. There are still many opportunities for cross-overs in high-tech and agro.'

Practical test

This season Cerescon is beginning a three-year study in collaboration with Wageningen University and Research (WUR) to measure the performance of the automatic asparagus harvester in terms of both quantity and quality, and to compare it with manual harvesting. To this end, test fields have been set up at three sites in Limburg with growers Martens and Teboza and the LimGroup



company. In autumn, the regrowth of the crop will be assessed to determine the effect of the harvesting method on yield in the coming years. This will provide a reliable impression of the performance of the harvester. Chris de Visser, Business Developer of WUR, on the development of the asparagus harvesting robot: 'This is an excellent crossover between agriculture and high-tech industry, which makes it very exciting indeed.'

Sales

The machine will cost €500,000 to €600,000. The first machines will be sold on a project basis in the first quarter of 2018, in time for the harvesting season. Cerescon will primarily sell the asparagus harvesters to large asparagus growers and contractors in the Netherlands and Germany, and is likely to look for a partner for countries in southern Europe and outside Europe.

In two years, Cerescon has grown from 0 to 15 employees. It is financed through private funding, Innovatiekrediet, Metropolis Eindhoven, an MIT grant and StartLife's start-up program.

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About Cerescon BV

Cerescon is a very young and rapidly developing high-tech start-up that is focused on the development, production and marketing of an automatic selective asparagus harvester. Harvesting asparagus is a very labor-intensive branch of horticulture: to this day, the 'white gold' is manually harvested by thousands of manual laborers. Cerescon is the first company in the world to successfully demonstrate the feasibility of an automatic asparagus harvester. More info on www.cerescon.com.

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