

Intra-row weeding possible with vision systems

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Credit: Wageningen University

Researchers of Wageningen University & Research, BU Greenhouse horticulture, developed weeding machines which are able to do intra-row weeding. Our experts in robotics were responsible for the detection of weed based on camera images. This development brings great advantage in weed control on the field, improving crop size and quality.

When growing organic vegetables on the field, one of the main tasks in the field is weeding. The weeding represents a major part of the labour required on the field, but it is of great importance for the quality of the crop. The intra-row weeding machines are based on vision systems which detect the weeds in the crop. In the advanced machines there are several camera's which acquire images of the crop and weeds.

More use of data

After the [weed](#) is detected in the images, the only action done is hoeing the weed. Until now there is no further processing of the images to gather valuable information. To increase the value of the images from the [field](#), use case 4.3: 'Added value weeding data' was started within the IoF2020 project. The goal is to extract data on crop growth, weed pressure, harvest moment and nutrient shortage from the images.

Data will be represented as heat maps to the grower, which can be viewed in all main farm management systems. By structuring the data in a user friendly way, the grower will be supported to make choices to grow its [crops](#) more efficient.

Provided by Wageningen University

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