

# Intelligent spraying boom reduces the herbicide usage with up to 95%

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An often repeated statement by environmental NGO's and policy makers is that we shall reduce the usage of herbicides in agriculture. This is because herbicide residues ends up in our food as well as in our drinking water.

In order to reduce the usage of herbicides all the while not sacrificing yield the newly published Ph.D. thesis from the University of Southern Denmark has shown how this may be accomplished by using an intelligent sprayer. The intelligent sprayer uses a camera together with a computer controlled nozzle to turn the sprayer on and off, so that it is only turned on whenever there is weeds present below the sprayer boom.

The original goal of the project was to save more than 50% of the herbicide usage compared to the classical technique of spraying the whole field.

In 2014 a maize field in Slagelse was treating using this new technique and while there was no discernable difference in the area covered by weeds after spraying between the new technique and the classical technique, the new technique only used 5% - 30% of the herbicide of the classic technique. Exactly how much is saved depends on how many weeds that are present in the field.

The system uses the patented MoDiCoVi camera algorithm developed under the Ph.D. which recognises the shape of the leaves in order to decide whether to spray.



*Image courtesy of Amazone gmbh*