

How laser weeding can contribute to improving the environment and sustaining biodiversity (II)

Combining laser weeding with weed control thresholds

As a weed/crop recognition system is essential, laser weeding can be combined with weed control thresholds. Only if a certain number or cover of weeds are present (the threshold), they affect the economic yields negatively and need to be removed. Introducing weed control thresholds could further reduce energy consumption and the environmental impact and sustain biodiversity.

Laser weeding can help to protect non-target organisms

At the same time, recognition systems can be used to identify nests of farmland birds and other non-target organisms that the vehicle should avoid and bypass. Therefore, laser weeding based on efficient recognition tools could be more ecologically sustainable than any other weed control method.



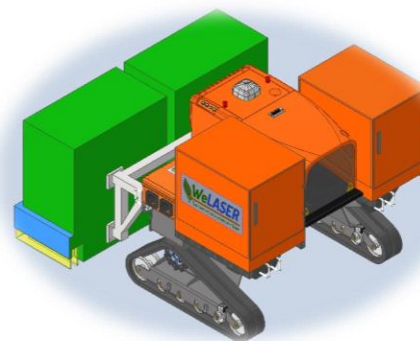
Hardy sprayer

(From: <https://hardi-nternational.com/sprayers/trailed/commander>)

Practical recommendation

WeLASER can minimize the treated areas and be respectful with beneficial living organisms as commented in WeLASER Practice abstract PA-18. In addition, weed control thresholds can increase profitability and protect non-target organisms.

Furthermore, in WeLASER, we develop a relatively light autonomous vehicle to perform the laser weeding. Small vehicles do not compress the soil and influence the soil structure and soil organisms like heavy tractors transporting thousands of litres of spraying liquids or heavy implements for mechanical weed control or gas for flame weeding.



WeLASER solution

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