



Sugar beet cultivation: Weed control using field robotics_

Weed control as key challenge in sugar beet cultivation – number of approved crop protection products declining, labour costs rising – hoeing robots increasingly in use – FarmRobotix to feature at SugarBeet Expo 2026

Sugar beet cultivation is currently facing significant challenges. Knowledge transfer and innovative technical solutions presented in the field are key to addressing them. This is why the DLG (German Agricultural Society) has launched a new open-air exhibition: SugarBeet Expo to take place for the first time from 9 to 10 September 2026 at Rittergut Gestorf estate 1 in Springe near Hanover, Germany, focusing exclusively on sugar beet production.

Running in parallel with the established specialist trade fair PotatoEurope at the same venue, SugarBeet Expo offers growers the opportunity to explore solutions first-hand to help address the future viability of sugar beet production. A key topic in September is weed control in sugar beet cultivation, where hoeing robots are regarded as one of the most promising innovations.

In addition to weed control, combating diseases and pests such as the SBR/Stolbur complex and cercospora are of major importance to farmers. The number of approved crop protection products is declining, while rising labor costs and the availability of manual workers pose significant challenges, particularly in organic farming. Hoeing robots are considered one of the most promising innovations and are being used more frequently, especially in organic production, to replace labor-intensive hand weeding with intelligent mechanical hoeing systems.

The Kirschgartshausen research farm near Mannheim, Germany, operated by Südzucker Landwirtschaft, has in recent years focused on the use of alternative weed control methods. Two autonomous systems in particular have been tested extensively: Farmdroid, with its FD20, has developed a specialised system for sowing and hoeing sugar beets based on GPS technology, while the farming GT system offered by Farming Revolution uses cameras to identify weeds and crop plants. Operating using artificial intelligence (AI), the system can be used in more than 100 different crops.

High weed control performance achieved

The trials conducted at the experimental farm showed that, over three years with different levels of weed infestation, both hoeing robots achieved a significant reduction in weeds. With weed control efficacy of over 90 percent and at the same time low levels of crop losses, a substantial reduction in manual weeding hours can be achieved in organic farming. Interested readers can find the full technical article by Dr Peter Risser online at: [LINK](#)

The SugarBeet Expo concept: Practical relevance, international reach and innovation
Like PotatoEurope, SugarBeet Expo will be an open-air field exhibition format featuring technical presentations, workshops, expert talks and machinery demonstrations under real operating conditions. Internationally leading companies from the fields of seed, machinery, crop protection and digitalization will present the latest developments and future-oriented solutions.

“With SugarBeet Expo, we are creating a platform that consciously focuses on proximity rather than competition. In arable farming, potatoes and sugar beets are strategic cropping partners on many farms – and this is exactly how we understand our exhibition concept: two independent specialist worlds that benefit from each other through targeted interfaces,” says Wilfried Wolf, Project Manager and contact for both trade fairs.

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About DLG

With more than 30,000 members, DLG is a politically independent and non-profit organisation. DLG draws on an international network of some 3,000 food and agricultural experts. DLG operates with subsidiaries in 10 countries and also organizes over 30 regional agricultural and livestock exhibitions worldwide. DLG's leading international exhibitions, EuroTier for livestock

farming and Agritechnica for agricultural machinery, which are held every two years in Hanover, Germany, provide international impetus for the local trade fairs. Headquartered in Frankfurt, Germany, DLG conducts practical trials and tests to keep its members informed of the latest developments. DLG's sites include DLG's International Crop Production Centre, a 600-hectare test site in Bernburg-Strenzfeld, Germany and the DLG Test Centre, Europe's largest agricultural machinery test centre for Technology and Farm Inputs, located in Gross-Umstadt, Germany. DLG bridges the gap between theory and practice, as evidenced by more than 40 working groups of farmers, academics, agricultural equipment companies and organisations that continually compare advances in knowledge in specific areas such as irrigation and precision farming.

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