

Mechanical Weed Control – Including Robots

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Summary

In times of less availability and restriction on herbicides, especially like Glyphosate, growers are again focusing more on alternatives for example mechanical weed control. Modern machinery is looking totally different than before. The main goal is still the reduction of competition for light, water and nutrients for our plants.

Many developments have been made like finger weeders, power harrows and others. Special machinery for nearly each crop size and row distance is needed. Tool carriers or high clearance tractors are available as 3 or 4-tire systems or even on caterpillar tracks.

Using mechanical weed control includes always a risk of crop damage. Growers want to control as much weeds as

possible and getting as close as possible to the crop. Damage can easily happen.

Mechanical sensors and GPS-, camera- or laser-based systems can already give support to the vehicle driver. They all show advantages and disadvantages in different crops. They are competing with each other and also a combination of different systems in one machine does make sense.

Everybody is waiting for robots doing all the practical handwork in the field. So far, the systems are not able to separate the big number of tree and shrub species from weeds. There is interesting equipment available, but it will take a few more years to go an autonomous weeding robot in the field.