COMPANION CROPS IN OILSEED RAPE – EXPERTS SHARE THEIR EXPERIENCES

EXPERIENCES OF A PROFESSIONAL

Cord Müller-Scheeßel runs a purely arable farm covering 1,000 ha in Mecklenburg-Western Pomerania, Germany, near the Baltic Sea. The soils have an average of 42 soil points and the region's annual rainfall is between 530 and 550 mm. The crop rotation is diverse and includes, amongst other things, oilseed rape, cereals, sugar beet, grain maize and legumes. For several years now, no-till farming has been practised across all fields as part of a regenerative farming philosophy and in response to the dry conditions. Only the maize is sown using the strip-till method.

Due to increasing pest pressure and growing regional resistance of Cabbage stem flea beetle to insecticides, Müller-Scheeßel began using companion crops in oilseed rape around nine years ago. After initial trials with his own mixtures, he now uses exclusively the TerraLife®-BrassicaPro mixture from Deutsche Saatveredelung AG (DSV). His direct-drilling machine has four tanks. This allows the oilseed rape to be sown together with the companion crop and, for example, fertiliser in a single pass.

» The companion crop has had a positive effect on the health and, consequently, on the yield potential of my soils. «

Cord Müller-Scheeßel

Agronomic and operational effects

From a crop cultivation perspective, the companion crop has resulted in an overall reduction in weed pressure, even though chamomile continues to appear on his fields, reports Müller-Scheeßel. The companion crop also influences pest infestation. On average over the years, he has observed a lower incidence of pests.

He has not experienced any yield losses in his oilseed rape; on the contrary, Müller-Scheeßel suspects that yields are more stable compared to oilseed rape grown as a monoculture. A positive aspect is that herbicide treatments can sometimes be avoided. "These savings can then be directly offset against the seed costs of the companion crops," says Müller-Scheeßel. He views the improved soil structure, with higher biological activity and more water-stable aggregates, as particularly positive, even if this cannot be directly measured in financial terms. He also values the significantly improved water infiltration and retention capacity, which plays a major role in the face of increasing extreme weather events. He has also observed an increased earthworm density over the years. Overall, Müller-Scheeßel emphasises above all the positive effect of companion crops on the health and, consequently, the yield potential of his soils.

If anyone is thinking of starting with companion crops, his advice is: give it a go, just do it, and don't be put off by technical challenges. "Growing a companion crop is enjoyable, and it is rewarding to see the different plants growing in the autumn and the insects being active," says Müller-Scheeßel.

» I rely on the TerraLife® BrassicaPro companion crop mixture because it allows me to establish oilseed rape with significantly fewer herbicides without compromising yield. The mixture works perfectly with our direct-drilling system: stable stands, less weed pressure and a smooth overall process. I would advise anyone to simply give it a go. «

Cord Müller-Scheeßel, farmer from Mecklenburg-Western Pomerania, Germany

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A NEWCOMER’S INITIAL EXPERIENCES

Robin Weigel runs a 175 hectare mixed farm in the Westerwald, comprising agriculture, dairy cattle rearing and permanent grassland. The land is characterised by waterlogging, spring drought, clay layers and sloping terrain, which makes access difficult and limits water availability. Oilseed rape is a key component of the farm’s crop rotation. To test the benefits of companion crops in oilseed rape, Weigel sowed the TerraLife®-BrassicaPro companion crop mixture for the first time last year. His motivation: to do something good for the soil. The aim is to revitalise the microbiome and deter pests. At the same time, the soil is covered and protected. He also hopes to achieve higher yields on the fields.

Looking back, Weigel rates the effect of the mixture as thoroughly positive. He observed more diverse root development and better youth development of the oilseed rape thanks to the companion crops, as well as increased earthworm activity in the soil. He believes that companion crop components that froze off also acted as a distraction for slugs and the oilseed rape flea beetle. “What I found interesting was that the companion crop developed without suppressing the oilseed rape in the early stages,” says Weigel. This is a very important aspect, not just for him, as the oilseed rape should under no circumstances suffer as a result of the companion crops.

» My motivation was to do something good for the soil. The aim was to revitalise the microbiome, provide additional ground cover and, at the same time, deter pests.«

Robin Weigel

His positive impressions have prompted him to incorporate the cover crop mixture into other oilseed rape fields on his farm as well. In future, for example, he would like to carry out sowing in a single pass by fitting a pneumatic spreader on his seed drill to apply the companion crops. In doing so, he aims to save on a pass over the field and herbicide costs. Furthermore, a trial of single-seed sowing in oilseed rape is planned.

Conclusion

Regardless of site and farm structure, both farmers rate the TerraLife®BrassicaPro as a practical tool for improving soil structure, plant development and biological activity.

The interviews were conducted by Lucas Cordes and Friederike Ruoff.

» It is interesting that both crops can develop without suppressing one another. It is also important that the oilseed rape does not suffer. «

Robin Weigel, farmer from the Westerwald, Germany