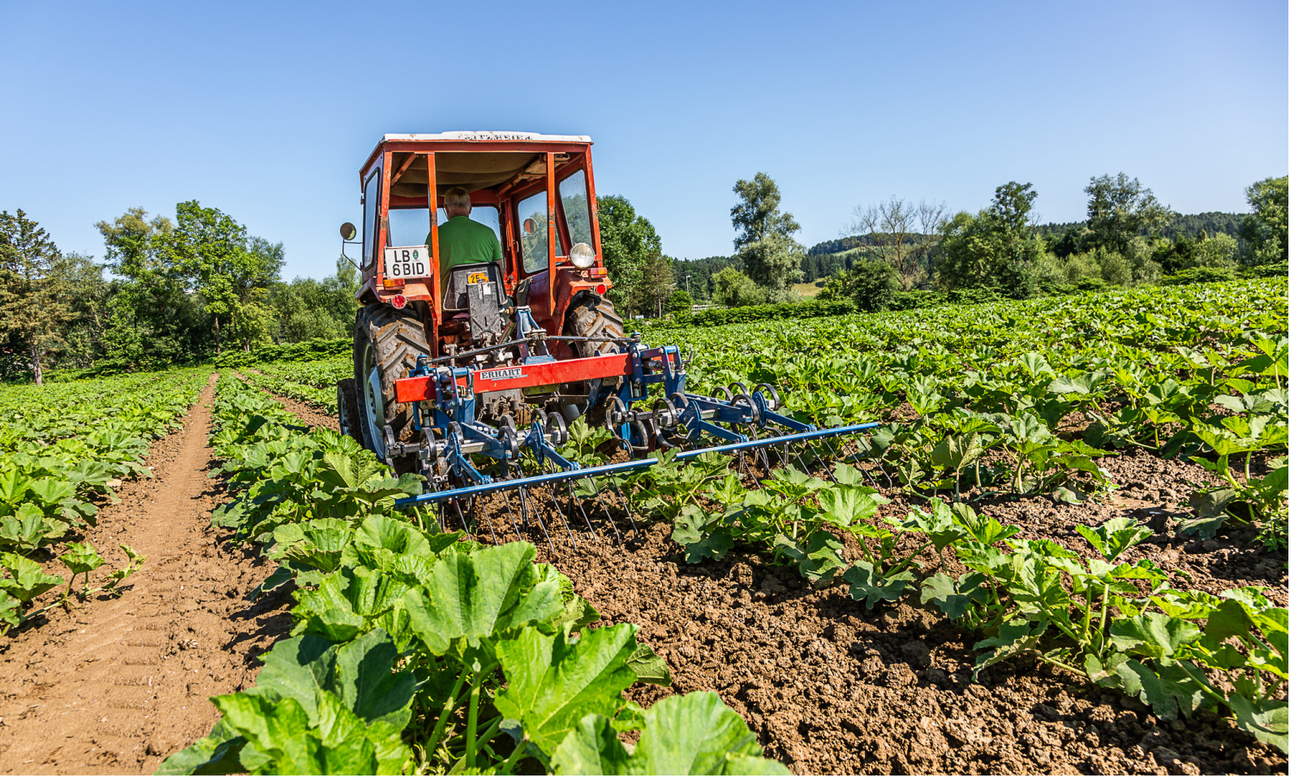


Soil cultivation at a new level

Strengthening the role of carbides in agricultural soil cultivation is a declared Boehlerit strategy. The benefits of using carbide instead of steel tools include more than just a significantly prolonged tool life, as reflected in the experiences of an agricultural enterprise in Styria, Austria: Thanks to improved soil cultivation and efficient weed removal, using Boehlerit carbide hoe blades pays off not just in terms of yield, but also in terms of cost-effectiveness.

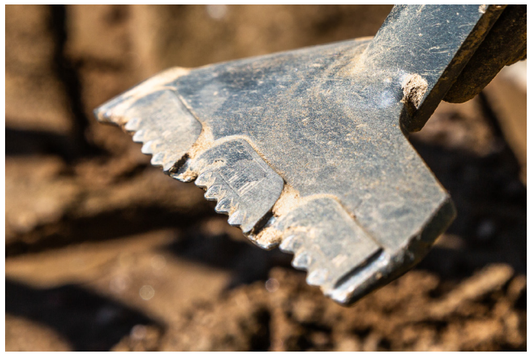
On approximately 40 hectares of land, Norbert Franz grows crops in southern Styria. His farm is located in Radiga, part of St. Johann im Saggautaul, and he grows predominantly corn, soy, and the oil pumpkin that is typical of the region. Although Norbert Franz uses conventional farming techniques, he gives a lot of thought to mechanical soil cultivation in order to keep the use of herbicides to a minimum. “This is why we hoe our pumpkin fields twice during the growth phase – and for years, we have been saying that this seems to do the plants a world of good”, says the farmer. Especially the significantly improved soil aeration has a positive impact on the development of the pumpkin plants, and Norbert Franz is convinced that hoeing helps to prevent weeds from spreading. The second round of hoeing takes place just before the plants grow wider, and usually marks the start of a real development spurt, which ultimately means a higher yield at harvest time. To make this second round of hoeing possible, Norbert Franz has doubled the distance of the rows, but halved the distance between the plants themselves. In total, the number of pumpkin plants on his field has thus remained constant.

Abrasive soil

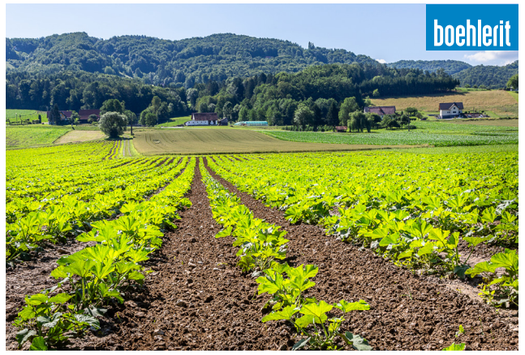
The fields in this region come with heavy, loamy soil, which can also be highly abrasive. This means that the hoe blades are exposed to a great deal of wear, which is why conventional hoe blades start to go blunt even after a relatively short period of use. “Once the edge is blunt, it doesn't cut the weeds below the surface, but simply pushes them sideways”, explains Norbert Franz. “The weeds recover quickly and the hoeing achieved absolutely nothing but waste time and money.” An alternative tool like the one now proposed by Boehlerit was therefore more than welcome.

Enormous progress

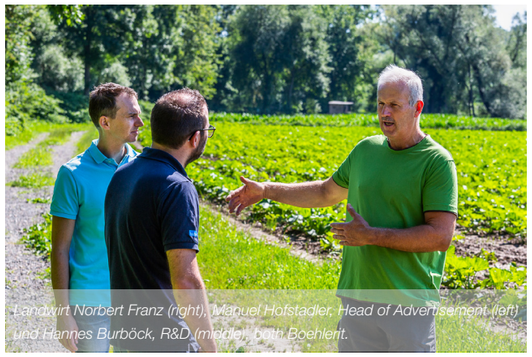
"For us, this was an obvious next step. Carbide is not really represented among agricultural tools at this point, although its benefits are huge”, says Hannes Burböck from R&D at Boehlerit. “In addition, our long-standing expertise with this material makes us obvious players when it comes to introducing it to the agricultural sector.” With this approach, Boehlerit is taking soil cultivation for farmers to an entirely new level. First of all, there is the tool life of the tools, which multiplies with the use of carbide. At first glance, this benefit seems to fade a little when we consider the higher price of carbide tools. However, this is a short-sighted view, says Burböck: “Tool changing times, which at larger enterprises can easily take up to two hours a day, are eliminated, which means that high-performance, expensive machines may be used much more efficiently. Also, due to increasingly unstable weather patterns, we often have just short windows available for soil cultivation, and using carbide tools increases this availability enormously.” Does this only apply to industrial farming? “Absolutely not”, says the expert. “Especially smaller farms or part-time farmers benefit from the long tool life of carbide tools, as they are the ones who are the most pressed for time, and they don’t want to waste it on frequent tool changes.”



With their innovative tip shape, serrated cutting edge and beaver tooth effect, Boehlerit carbide hoe blades are superior to conventional steel tools.



Norbert Franz removes unwanted weeds from his pumpkin fields in southern Styria with two hoeing passes carried out at intervals and ensures optimum soil aeration. Weeds and ensures optimum aeration of the soil.



Landwirt Norbert Franz (right), Manuel Hofstadler, Head of Advertisement (left) und Hannes Burböck, R&D (middle), both Boehlerit.

Constant cutting performance

Another benefit of the Boehlerit tools is the high quality of the carbide cutters. They remain sharp throughout the tool life of the tool and cut weeds reliably and efficiently. This means that the performance quality remains constant throughout the operating life of the tool. The concept works because Boehlerit applied its expertise in carbide to the requirements of the agricultural sector, in close cooperation with partner enterprises of all sizes who were willing to test the prototypes. “The feedback we received was a great support when it came to getting the most out of our tools”, says Burböck. The results are truly innovative, for instance the specially shaped tip that ensures perfect guidance and an optimal angle for the blades below the soil surface, independent of the humidity of the soil, or the wavy cutting edge of the carbide plates that were welded onto the steel carrier: The serrated edge means that weeds are always cut instead of being merely pushed aside. The icing on the cake of the Boehlerit hoe blades is the so-called “beaver teeth effect". To achieve this, the carbide plates stick out a little beyond the softer steel carrier. As a consequence, even when slightly worn, the carbide edge sticks out beyond the carrier edge with its higher wear level, and thus continues to stay sharp. “The carbide edge is essentially self-sharpening”, says Hannes Burböck. Another positive effect: The soil is not “sealed”, which means that earthworms and other creepy-crawlies are free to continue on their way, and that the soil remains water-permeable.

Growing portfolio

“When I heard about the benefits of the Boehlerit hoe blades, I thought I’d give them a go on my own pumpkin fields”, says Norbert Franz. The success in terms of soil aeration and weed removal was so overwhelming that he has never looked back. “The hoe blades work extremely well, thanks to the innovative tip, the wavy cutting edge and the beaver tooth effect. These benefits, in combination with the significantly longer tool life compared to standard steel tools, make the products well worth their price”, says the farmer, who believes that the carbide tools open up “another level of quality”. Then there is also the outstanding, reliable service, the direct communication with users and the straightforward sales channels that Boehlerit experts offer their customers. Boehlerit offers cultivator shares, hoe blades, duckfoot shares and other carbide tools for the agricultural sector both through direct sales channels and through a national and international network of competent, regionally interlinked dealers. Some manufacturers of agricultural machinery have also recognised the enormous potential of Boehlerit products and are supplying them as the first equipment of their machines. Boehlerit continues to expand its range, with the ultimate goal of offering a full-range portfolio. “For instance, we will soon launch carbide tools for rotating soil cultivation”, Burböck announces proudly.

Martin Gold/
Freier Redakteur