

Reprint: Field test | Amazone TopCut 12000-2T

# traction

The magazine for professional farming

4 | July/August 20 25



## Top-notch cutting

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# AMAZONE



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What started as a project for Amazone has ended in the launch of a new model range. The new TopCut combination of cutting rollers literally breaks new ground as it tills the land at ultra-shallow depths and consists of two wings that fold into a horizontal transport position.





**1** TopCut can be equipped with numerous tools to suit different crops and conditions.

**2** The main toolbar pivots in its mountings. We tested the knife roller in combination with the Minimum TillDisc.

**3** A kinematic linkage controls the pressure on the rollers.

**4** You simply refit one pin in a hole pattern that helps find the correct setting.

The Amazone TopCut is currently available only as a 12m machine. More models will follow without doubt.

Alexander Brockmann reports.

It's not uncommon for hyped projects to disappear into oblivion as quickly as they emerged. Luckily, this was not the fate of Amazone's TopCut concept, which was introduced as a cutting roller combination in spring 2025. The implement is something like a tool carrier that can be equipped with a choice of knife and disc rollers as well as rear-following presses or tines. Previewed at an early stage, the concept then toured European farms for several years, where it was trialled in a wide range of different

crops. We had the chance to test the roller combination just before it was officially launched and tucked it into a cover crop that was ready to work into the soil in preparation for maize.

Ultra-shallow tillage – that's the buzzword that defines the TopCut. We all know all too well that every extra centimetre of working depth means disturbing extra tonnes of soil and burning more fuel, even when it wouldn't have been necessary for the crop. Although the cover crop in our test field was traditionally incorporated at a deeper depth, TopCut proved that ultra-shallow tillage was absolutely fine.

Situated above the Cobra topsoil cultivator in the Amazone programme, TopCut is claimed to work 0cm to 3cm deep. Although the 12m model is currently the only model in the price list, further models and widths are certainly in the pipeline. We reckon that forthcoming versions will be wider than 12m and targeted at export markets.

## Technical data

### Frame

Tool carrier with 12m working width, Wingfold folding mechanism, K80 or hitch ring

### Main tools

Knife rollers with reversible knives bolted to a solid rotor shaft; alternatively a Minimum TillDisc roller with 410mm wavy discs and pressure control

### Front- and rear-mounted tools

A second front-mounted knife roller with hydraulic adjustment is an option; three-row harrow with 14mm tines and hydraulic adjustment or wedge ring roller 600, Disc roller 600 or no roller

### Dimensions and weights

240hp minimum tractor power; approx. 9.5t operating weight

### List price (excl. VAT)

Entry-level machine €95,945

## DEVELOPED FOR CUTTING

As its name suggests, the main tools in this combination have certain cutting qualities. The combination consists of Amazone's knife roller and the so-called Minimum TillDisc. The front-mounted toolbar is always the knife roller, which may be followed by another knife roller or the Minimum TillDisc roller, depending on needs. This concept is unique in the market. Our combination had the front-mounted knife roller, which was followed by the Minimum TillDisc.

The knife roller is a familiar item in the Amazone programme. It has a solid rotor shaft and measures 330mm in diameter. The straight knives are 40cm long and are bolted in staggered arrangement (all knives are reversible).

The Minimum TillDisc has wavy discs that are individually bolted to the rotor. Spaced 20cm apart, these 410mm diameter till discs run straight in the direction of travel. Their slightly wavy design resembles that of the Amazone Cayena discs and their action is less aggressive than that of the X-Cutter-Disc on the Catros.

Combining the knife roller with discs means that the implement cuts the ground and trash both in direction of travel and at an angle – something Amazone’s competitors do not have on offer. Cutting the trash several times speeds up the rotting process, of course, and produces a fine tilth without burying volunteer seeds deep in the soil. Although primarily designed for trashing cover crops for initial stubble incorporation, the implement is also suitable for direct drilling.

**WEIGHT DISTRIBUTION**

With neither the knife roller nor the Minimum TillDisc roller cutting actively into the soil, the working depth of the TopCut depends on the soil’s penetration resistance and also on the machine weight. The latter can be tweaked by refitting small pins. The



The field was ready for seeding after the TopCut pass.

TopCut has a manual setting system where the operator alters the load on the main tools by refitting two pins on each wing. We applied only little pressure to the roller sections and this proved up to the task. The two main rollers mount jointly in a pivoting arrangement and have coil springs for impact protection. Damaged knives or discs are easily replaced.

You can also add a front-mounted knife roller as an option. This second roller is identical to the main roller, yet unlike this, it doesn’t mount behind the running gear but in front of it. The roller has the familiar hydraulic system for lowering into and lifting out of work. We operated the TopCut both with and without this roller in action and found that it produced a finer tilth finish.

We extended the implement at the rear by a three-row flexible-tine straw harrow with 14mm tines that have carbide-plated tips as an option. Hydraulically adjustable, the harrow is particularly useful for distributing straw lumps. Yet, you can also opt for a 600mm wedge ring roller for seedbed preparation. In that case though, you have to forgo the front-mounted knife roller. More-

**Market overview Knife roller combinations**

	Amazone TopCut	Horsch Cultro TC	Baarck Acker-Ass WM
<b>Working width</b>	12.10m	12.20m	12.30m
<b>Main tools</b>	Double-knife roller or knife roller plus Minimum TillDisc	Double-knife roller	Double-knife roller, Crossboard, grassland or straw harrow
<b>Setting options</b>	Manual pressure control	Hydraulic	Hydraulic/parallel linkage
<b>Knife roller</b>	330mm, 6 reversible knives, solid shaft	300mm, 6 knives per section, solid shaft	360 knives, curved knives, hollow shaft
<b>Opt. roller</b>	410mm Minimum TillDisc	-	-
<b>Nominal cutting length</b>	17.28cm	14cm	19.9cm
<b>Opt. front-mounted tools</b>	Knife roller	Crushbar	-
<b>Rear-following tools</b>	No tool at the rear or three-row harrow, wedge ring roller, discs	3-row harrow or RollFlex, RollPack, RingFlex presses	Cambridge roller, tooth-ring or Otico Farmflex roller
<b>Folding system</b>	Wingfold	Wingfold	Scissor mechanism
<b>Max. work rate</b>	20km/hr	20km/hr	n.a.
<b>Tractor attachment</b>	K80 or choice of hitch rings	K80 or choice of hitch rings	n.a.
<b>Tractor power</b>	from 240hp	270 - 350hp	from 220hp
<b>Weight</b>	approx. 7t-10t	approx. 7.3t-9t	approx. 9.5t

Photos: A. Brockmann, Horsch, Baarck

## Conclusion

Although marketed as a cutting roller combination, TopCut also passes for a tool carrier that offers many customising options. The 12m TopCut mode is currently the only version available, yet Amazone is expected to add further models to the range. In our field test, we operated the machine at a swift 20km/hr as the tractor contented itself with 2.5-3.0l/ha. Minimum tractor power is 240hp for the 12m version; this seems realistic to us.

- ➕ choice of tools
- ➕ cuts in and across the direction of travel
- ➖ only 12m work width available\*

\*The machine is also available in 5m and 6m widths in similar specification

over, you can run the TopCut with a disc-type roller at the rear or use no trailing press or harrow at all.

### A NEW FOLDING SYSTEM

Boasting the Wingfold system, TopCut also breaks fresh ground in Amazone's folding policy for its tillage equipment. The new design folds the sections vertically in a first step (harrow tines up) and then the two wings fold horizontally along the main beam, with the transport running gear arranged at the rear.

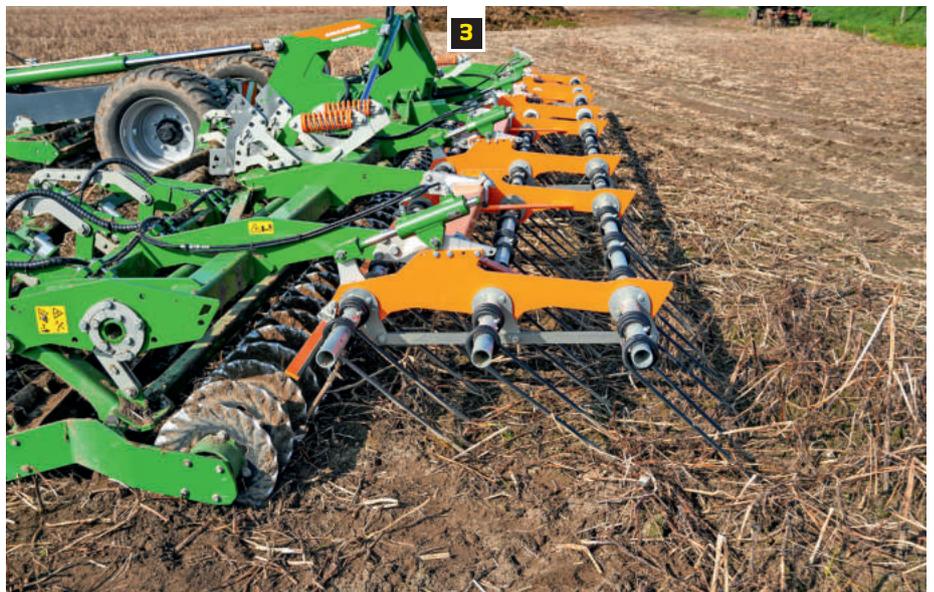
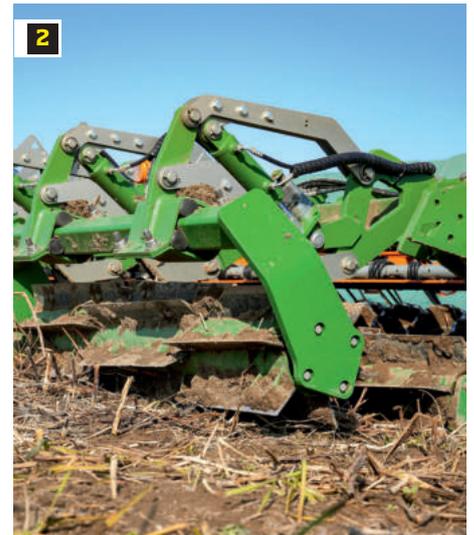
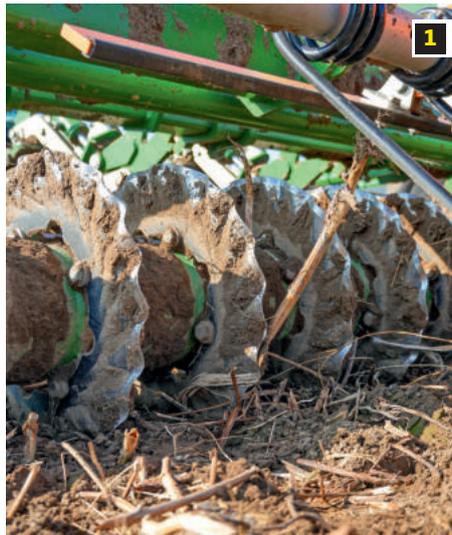
In the field with the wings in work, the hydraulic system must be in float position for the wings to follow the ground contours. A minor grumble is that you can neither reverse nor raise the TopCut on the headland the traditional way, so that you must swing wide - a constraint in small fields but no issue in large fields. Matching up is theoretically possible, yet the discs will cut a deep groove in the soil, which is not very gentle on the material in the first place. Should you mess up a headland turn or a manoeuvre to avoid an obstacle, a brief changeover into transport position will get things right again.

Tractor attachment is to the K80 or a choice of hitch rings. Approved by Scharmüller for the TopCut, these hitches have no issue with negative tongue load during folding. The tractor's link arms are not designed to cope with negative loads.

Our TopCut in high-level specification boasted many hydraulic functions. To serve all these functions, the tractor should have four da spools whereas three or two are fine for less complex variants.



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**1** The 410mm wavy discs are spaced 20cm apart.

**2** Our test machine had the knife roller as optional front-mounted tool, which is identical with the leading main roller.

**3** A three-bar straw harrow at the rear took care of the finishing touch. The tines have carbide tips as an option.

**4** The Wingfold folding mechanism on a tillage implement is an Amazone first.

