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**Simple
and accurate**

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Simple and accurate

Endurance test Sulky Xeos Pro is a pneumatic seed drill mounted on a power harrow. We tested the 3m version with 1,500 l hopper and 20 Cultidisc coulters. Here are our findings.



In brief

Fast, accurate and easy to use: this sums up the Sulky Xeos Pro pneumatic seed drill. The Cultidisc coulter units is made for rapid sowing and accurate seed placement. Operation is simple, as are calibration and setting.



Photo: Mummé

User opinions are perhaps most strongly divided in the 3m category, where mechanical and pneumatic seed drills compete for custom. Pneumatic drills account for around 16 percent of the German market for integrated drills. One disadvantage of this type is the more complex metering with the fan, but this is compensated for by easier raising and lowering in larger working widths. And even a 3m pneumatic drill has its advantages,

particularly when delivery rate settings and calibration are as easy as with the Sulky. The Xeos now also has a new metering system. Instead of one cam wheel per row, there is now a single metering unit with a distribution head. Sulky calls this the ADS (Adjustable Distribution System).

Ultra-simple metering

The electric drive means setting the delivery rate could not be easier: at the Pilot

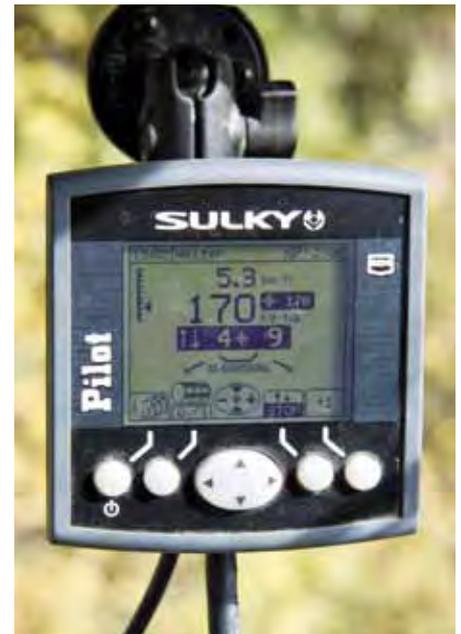


Photo: Feuerborn

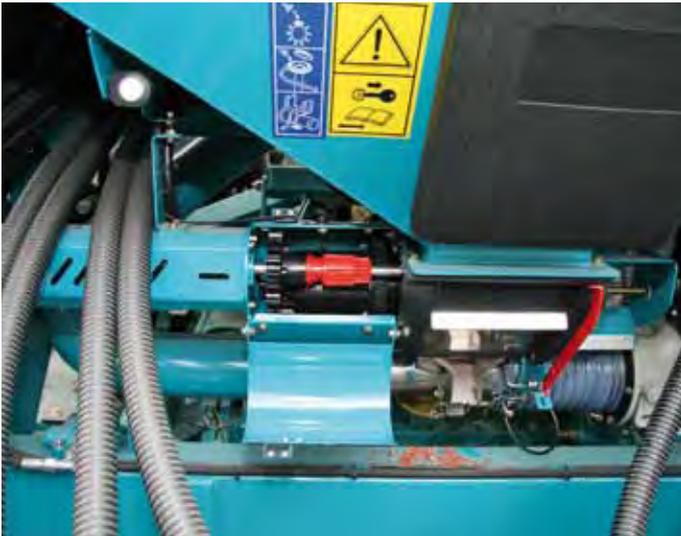
Seed drill operation is easy with the Pilot. All settings, for example delivery rate, are entered here.

control box, the required delivery rate is entered, the value displayed is set at the metering unit, and the controls set to calibrate. The bag provided is then attached under the metering mechanism supplied and automatic calibration is started by pressing the key button at the back of the drill. The calibrated amount is then weighed in the scale provided and the value entered into the Pilot. That's it; the control box does everything else. Not only does the Pilot set the delivery rate, it also manage the tramlines, the fan speed, the metering unit and the hopper level. The rate can be adjusted slightly during operation in increments of 10 percent.

Drill pilot with pre-load function

The first seed in a mechanical drill reaches the coulter blades as soon as you set off. The nature of a pneumatic drill means this process takes a little longer. That it is why the coulter discs are often inserted a little earlier or retracted in the event of blockages to ensure there are no sowing errors. With the Xeos Pro, these operations are a thing of the past. Simply press the pre-load button before you set off, and the seed will reach the coulter discs before the sun land wheel triggers metering again. This is handy and works well. It stops the problematic recoil after stopping when sowing. We also found the system good in the headlands.

The Sulky Xeos Pro with Cultidisc drilling bar is mounted on a Cultiline power harrow.



The electric metering unit is easily switched from standard to small seed setting with the red clip.



Photos: Feuerborn

Tramlining is controlled at the ADS distribution head. Electric half-width shut-off is also possible.

The Pilot control box activates tramlining and seed application is automatically reduced in proportion. This means the seed delivery is not increased at the other coulters while tramlining is active. The ADS system allows the tramlines to be adjusted slightly to the desired width. Each coulters can be shut off individually if required. Alongside tramline control, electronic half-drill shut-off is also possible.

From 1 to 450 kg

The metering unit allows a sowing density of between 1 kg and 450 kg/ha at 8 km/h. If you want to sow more rapidly, the maximum possible sowing density is reduced accordingly. To switch from standard to

small seeds, you need to insert a pinion for small seeds into the pinion for standard seeds. This is simple and easy.

The specified sowing density was maintained extremely accurately both for grain and for the catch crop. Seed is moved by an extremely quiet hydraulic fan which uses a simple control device with free return. A second control device is required for the markers. The Fan speed in the 3m drill is 2900 rpm and is monitored from the terminal.

Four rotors per metre

The seed drill is mounted on a Sulky Cultiline HR 3000 power harrow. The drilling toolbar itself is supported by the packer

roller. We tested the 550mm-diameter toothed packer roller. 60mm bearings should ensure a long service life. We were extremely satisfied with the packer; the hardened scrapers worked well even in wet conditions.

The power harrow has four rotors per metre of its working width. The tines can be released with a quick release lever and removed through the centre of the rotor. Centrifugal force pushes the tines into the housing. This means they cannot wobble or flap about, and will not fall out. The tines can also be switched from a slightly receding (standard) to aggressive (for stubble) angle in just three operations. Refitting was extremely easy with the new

- 1 The 410 mm notched coulters are suspended on leaf springs in a parallelogram which pushes against the packer roller.
- 2 The air escapes at the tip of the coulters disc (arrow) so that the seed falls into the furrow without too much force from the fan.
- 3 The dial (arrow) allows you to set an equal sowing depth on each side.



Photos: Feuerborn



Photo: Feuerborn

The press wheels have four possible settings, and the drill can also be used without the wheels if conditions are extremely wet. We found setting 2 highly effective.

machine. However, we only worked with trailing tines.

Cultidisc with press wheel

As the seed drill presses against the packer roller, one side of the drilling tool-bar presses down irrespective of the working depth of the power harrow. On the other side, the adjustable press wheels (4 settings) hold the coulter discs at the required depth. We worked with the standard setting (2) for sowing grain. There was no need to adjust the depth in our test conditions. The pressure can be increased further for extremely dry conditions, and can be reduced when conditions are extremely wet or for deep drilling (over

6 cm, for example for broad beans). If the packer wheels pick up too much soil, the equipment can also be operated without them. Adjustment is simple. The correct spanner is helpfully provided.

Cultidisc with air vent

The drilling units consist of coulter disc fittings with integrated carbide coulters. These carbide coulters also serve as scrapers for the 410mm notched discs angled at 4 degrees. The Cultidisc units are arranged in two rows, 560mm apart, in a parallelogram. They are the same length to ensure the same working depth for both rows. Two tie rods in a ratchet system, adjusted lengthways with a lever, set the

dlz Test results

Sulky Xeos Pro seed drill	
Hopper size/loading	■ ■ ■ ■ ■
Setting seed delivery rate	■ ■ ■ ■ ■
Calibration testing	■ ■ ■ ■ ■
Setting sowing depth	■ ■ ■ ■ □
Manoeuvrability	■ ■ ■ ■ ■
Setting press wheels	■ ■ ■ ■ □
Setting rear harrow	■ ■ ■ ■ □
Maintenance of sowing depth	■ ■ ■ ■ ■
Emergence	■ ■ ■ ■ ■
Distribution along row	■ ■ ■ ■ □
Cultiline power harrow	
Setting working depth	■ ■ ■ ■ □
Reconsolidation	■ ■ ■ ■ □
Quiet operation	■ ■ ■ ■ □
Manoeuvrability	■ ■ ■ ■ □
Controls	
Ease of operation	■ ■ ■ ■ ■
Clarity of display	■ ■ ■ ■ □
Functional scope	■ ■ ■ ■ □



sowing depth. Two dials on the right and the left make it easier to set a constant sowing depth across the working width. We rapidly found the required sowing depth with the system, and there was good maintenance of this depth even at high speeds of up to 12 km/h. A maximum of 10 cm is supposedly possible. We primari-



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ly worked with around 4cm. The metering system only reaches its limits at speeds of less than 2.5km/h.

The coulter units have leaf spring suspension and are designed to enable a coulter pressure of up to 80 kg per coulter. At the same time, this means the discs can also avoid stones, for example. 560mm between the discs ensures sufficient clearance even

with large quantities of organic matter. Even after maize, we were able to sow wheat with no problem after using the cultivator. To prevent the seeds from rolling away or bouncing in the furrow, there is a vent at the end of the coulter tube. This allows the air used to transport the seed to escape, and the seed to simply drop into the furrow. The odd seed does, however, escape.

You can adjust the angle of the attached rear harrow to four different positions, changing how aggressive it is. The pressure can be effectively adjusted to the prevailing conditions with the springs and connector. The rear is almost redundant as the press wheels on their own cover the seed well. However, the rear harrow does level the field somewhat, pushing loose soil into the furrow formed by the press wheel.



Photos: Feuerborn

- 1 The power harrow is extremely sturdy and heavy. Depth settings are made with bolts. The 550mm toothed packer roller supports the drilling toolbars and ensures a consistent working depth.
- 2 Rear harrow aggressiveness can be adjusted to conditions with angle and pressure.
- 3 Access to the hopper is very good, with stairs and the walkway. A step (arrow) facilitates access to the hopper.

€ Technical data	
Working width	3.00m
Inter-row spacing	15cm
Clearance between rows	56cm
Maximum coulter pressure	80kg
Adjustment of sowing depth	Mechanical with two tie rods
Cultiline speed adjustment	Two settings, bevel gears
Quick tine change	Standard feature
Toothed packer roller diameter	550mm
Hopper capacity	1,500 l
Transport width	3.00m
Operating weight (empty)	3,360 kg
Power required	From 160 hp
Prices	
Xeos Pro basic price	contact your local SULKY dealer
Sulky rotary harrow attachments	
2x3 set tramlines 30 Euro	
Press wheel scraper	
Lighting: work and hopper floodlights/lamps	
Cultiline HR 3000 basic price	
Track eraser	
Rear levelling bar	
Total price	
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Other points to mention

The marker folding system is hydraulic. Initially, the markers did not have enough clearance underneath and touched, but this problem was easily solved: the discs can be angled in line with the ground conditions to cut a visible furrow. We were only happy with the last setting. Before that, the line was almost invisible, particularly in hard soil.

Moreover, the sun land wheel runs beyond the drill and has therefore to be removed for transport as the drill is otherwise over 3m wide. The wheel is, however, easy to disassemble and park. A useful feature is the walkway with folding stairs: a safe way to get onto the drill for loading seed, adjusting the distribution head or for calibration testing. The hopper cover keeps rain and dirt out of the hopper. Steps at the 1,500 l hopper make it easy to access for cleaning or adjusting the distribution head.

Overall rating

We approved of the Sulky seed drill with ADS metering with rotary feeder and distribution head. The coulters with the notched 410mm discs leave a good seedbed, even where there is a lot of organic matter. Compliance with sowing depth and distribution settings was good. Setting the delivery rate at the Pilot computer is amazingly simple. Emergence was extremely even.