# THE ANTICIPATION GOES UP

Agritechnica opens its doors in February 2022

# NO CHANCE FOR WEEDS

Swiss Future Farm takes a close look at mechanical control in maize

ALL IN GREEN AREA Farmer Georg Wilhelm Völger trusts in

Farmer Georg Wilhelm Völger trusts in Fendt machinery - not only for tractors

# **FUTURE AT THE TOUCH OF A BUTTON** Businesses on the road to digitization



# CHANGE WITH SINN AND SENSE

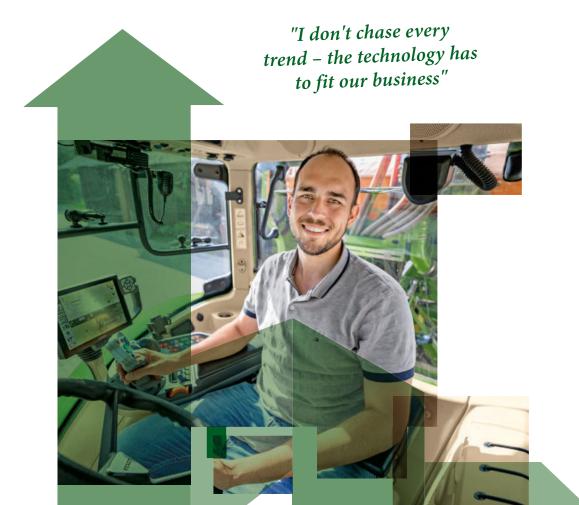
Renè Wengelewski has over 10,000 subscribers to his YouTube channel. He is a big fan of modern agricultural technology - including the associated digital applications. He shows the advantages they bring in his entertaining explanatory videos. The star of these videos is his well-equipped Fendt 724 Vario.

Even during my training as an agricultural service technician, I didn't have any instructions on how to start up the ISOBUS terminal on the tractor or how to program the track guidance. When my father-in-law bought a new Fendt 724 Vario for his arable farm, we were somewhat overwhelmed by the various assistance systems and configuration options. I got to grips with it and made my first explanatory video - it took several attempts before I was really satisfied.

Machines and digital systems are becoming more and more complex, but in return they also make our lives easier. Everyday work in the fields. When my grandmother was young, horses helped to bring the harvest into the dry. The work demanded full physical effort. My Fendt tractor now not only has a few more horsepower under the bonnet, but also makes its own rounds in the field thanks to the wide range of track guidance options, and can even carry out a sequence of work steps on the headland automatically.

It's crazy how technology has developed and what possibilities there are now. For me, it's important that I don't over think the developments and stay on top of them. I stay up to date. But I can't chase after all the trends and introduce them on my father-inlaw's farm. He is open to my suggestions, but the technologies must also suit him and his farm. Using the technology under the conditions on the farm provides more clarity.

I would like to see formal education and training for farmers adapt to the rapid developments in the agricultural industry. Trainees need access to good materials that explain how different systems can be introduced into the farm and the benefits of using them.



# DEAR READER,

great events are casting their shadows ahead: Agritechnica is finally due to open its doors at the Hannover exhibition centre from 27 February to 5 March 2022. Originally, the agricultural technology trade fair was to take place in November 2021, but the tense Corona situation forced the organisers to postpone it.

I am therefore all the more pleased that we will now be able to present our new products at Fendt to the general public in spring 2022. Although we had already presented the new products at a virtual press conference, a personal exchange with you is of course something completely different. Nothing replaces a face-to-face conversation with professional colleagues, partners and friends.

Of course, we would like to take this opportunity to present our latest developments to



you. One of these is our FendtONE digital operating concept, which will be available with the latest generations of Fendt 500, 900 and 1000 series tractors.

While other industries are still figuring out how to implement digitalisation, Fendt is already using digital solutions to link work steps in a meaningful and user-friendly way. With FendtONE, machine and personnel deployment can be better planned, machine data can be managed and the efficiency of the tractors can be optimised through track guidance or precision tillage. The bottom line is that it makes farmers' work faster, cheaper and more pleasant. Why not drop by our stand at Agritechnica and see for yourself how Fendt can make your farm future-proof. I look forward to your visit and hope you enjoy reading the new Fendt FOCUS!

Sincerely, Christoph Gröblinghoff





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# November 2021 Fendt FOCUS

# TITLETOPIC: SMART FARMING

- 06 One step ahead
- 10 Green Revolution
- 16 An assistant who sprint

## FENDT TECHNOLOGY

20 Agritechnica: Pure anticipation

## INTERVIEW

28 Fresh wind - Monika Tarvydytė leads the family business into the future

# FENDT INTERNATIONAL

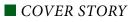
- 32 Fendt IDEAL: Used all over the world
- 52 Fendt Rogator 600: Milestone for the self-propelled harvester
- 56 Fendt Cargo: Clear view at all times

# REPORTS

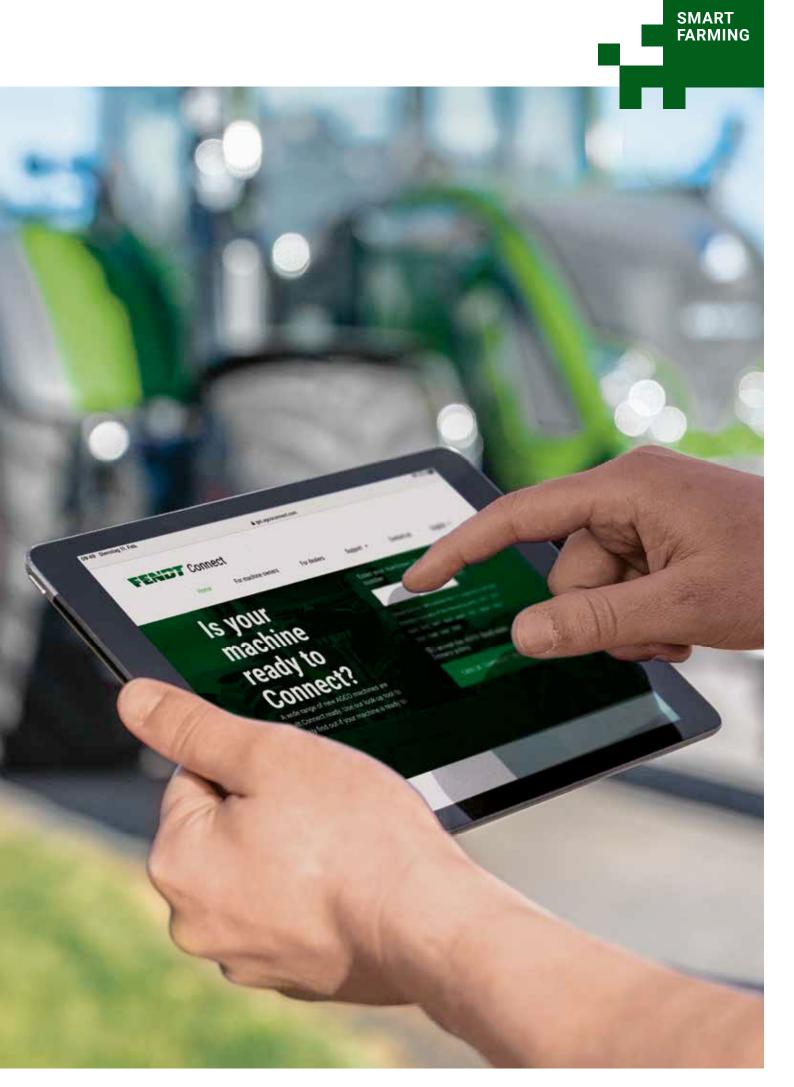
- 38 Maize: No chance for weeds
- 46 Training: #fitforfuture
- 60 Fendt product range: Everything is in the green

# ALWAYS IN THE MAGAZINE

- 02 The future of agriculture: Renè Wengelewski focuses on digitalisation - with sense and understanding
- 03 Editorial
- 44 Messages
- 66 Fendt Moment: Ann-Christin Kahler inspires her fans on Instagram



# ONE STEP AHEAD



Paperwork, bellowed work orders and handwritten to-do lists have long been a thing of the past - even on a farm. Digital solutions such as acreage indexes, agricultural apps and high-tech agricultural machinery make everyday life easier.

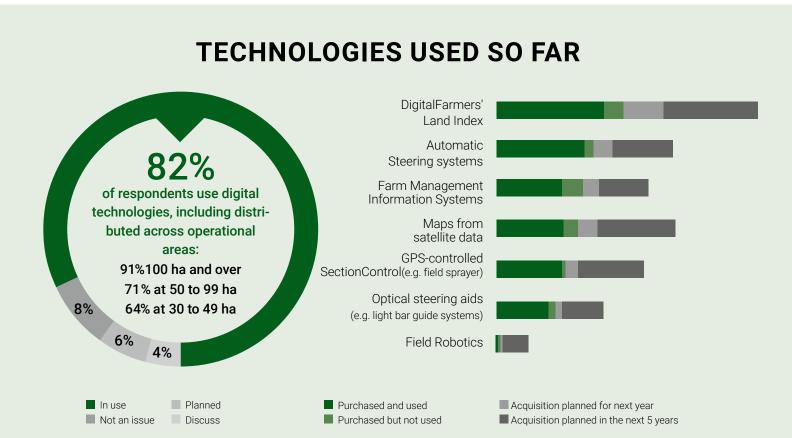
Eight out of ten farmers use digital technologies on their farms. This is the result of a representative study commissioned by the digital association Bitkom, the German Farmers' Association and Landwirtschaftliche Rentenbank. 500 farmers took part in the survey throughout Germany in the period from February to March 2020. The Corona pandemic and the ever-increasing documentation requirements are likely to have reinforced the clear trend towards digitalisation in agriculture.

Through the use of GPS data on the tractor, the agricultural sector developed very early into a pioneer in the digital transformation. It is therefore not surprising that 45 percent of the farmers surveyed use GPS-controlled agricultural machinery. Agricultural apps for smartphones or tablets support 40 percent of farmers, and the use of farm or herd management systems is just as popular.

## Digitization as an opportunity

The use of various digital technologies offers farmers the opportunity to meet the challenges of the future: The implementation of the fertilizer ordinance, documentation of resource use and transparent, traceable production of food are some key points. 81 percent of the farmers surveyed in the Bitkom study are convinced that digitalization has a positive effect on production efficiency.

By decoupling work processes in terms of time, such as through the use of milking robots on the dairy farms, 57 percent of those surveyed enjoy the improved compatibility of private life and everyday working life. The survey shows that the majority of farmers in Germany are open to digital technologies. They see considerable advantages in them for the management of their farms. In this context, 64 percent state that digitalization can reduce



# 8



costs in the long term, even if the investment required for the transformation is high; for 92 percent of farmers, this is a disadvantage. Farmers see another challenge in finding well-trained employees who have the necessary digital knowhow. 40 percent of respondents see this as a problem.

In foreign trade, Bavarian farmers mainly made investments in the areas of digital field mapping, farm management information systems, automatic steering systems and GPS-controlled part-width section control. This was revealed in 2020 by a survey conducted by the Bavarian State Institute for Agriculture, "Ease of work and increased quality of work have a positive effect on the purchase decision."

which questioned 2,390 farmers in the state of Bavaria.

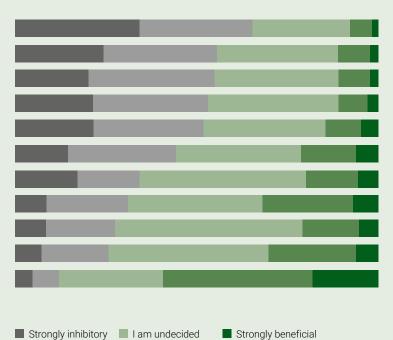
The LfL survey also showed that the majority of farmers shy away from the high initial investment. In addition, the economic viability of digital technologies is difficult to assess. Their concerns about data protection and data sovereignty also prevent farmers from making investments in this area. However, the Bitkom study found that the 500 farmers surveyed would be quite willing to share digitally collected farm data under certain conditions: for example, if it meant that damage to agricultural machinery could be detected and repaired at an early stage (84 percent), if the bureaucratic burden could be reduced as a result (82 percent) or if scientific research projects were supported for the benefit of agriculture (76 percent).

In the survey of the Bavarian State Institute of Agriculture, it became apparent that the prospect of making work easier and increasing the quality of work could have a promoting effect on the purchase decision. The user-friendliness and reliability of the systems are of great importance.

# FACILITATING AND INHIBITING ASPECTS

Rather inhibiting

Initial investment Economic efficiency in question Running costs Uncertainty about data protection Compatibility of different systems Lack of computer skills Political promotion User-friendliness Manufacturer service Reliability of the systems Ease of work and quality of work



Rather beneficial

9



# THE GREEN REVOLUTION

SMART FARMING The tasks have changed. For a long time, contractors were called in purely as service provide resources in home mechanisation. In the meantime, they have become an important link in precision farming. Osters & Voß continues to adapt its offering and upgrade digitally.

The work of a contractor requires that he is always on top of technical developments. Therefore, he always has a keen interest in making things easier to organise and keep track of. To do this, he uses other, modern technology digital technology. But no matter how great his interest, there is often not enough time in the dayto-day running of the business to take the next step in the ongoing process of digitalisation. Not so at the contracting company Osters & Voß. Here, investments are consistently made in new technology, for example in around 20 new Fendt tractors per year. Over the summer months, FendtONE has become part of everyday life. The ease of use of the system is a key point in driving the development of the business forward.

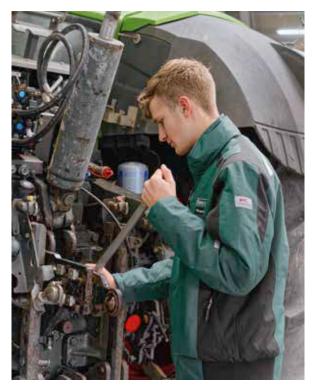
## Sought and found

Andreas Osters and Christof Voß met during their training as mechanical engineers at the Strautmann company in Bad Laer. 30 years ago, when they were both 23 years old, they founded their contracting company in the Prignitz, in Brandenburg. Their wish to turn their interest in modern agricultural technology into their profession thus became reality. Whether it was a tractor or a combine harvester - driving huge machines across fields excited both of them then and now.

For the driver, the cab is the room in which he spends many hours the contractor's living room, so to speak. That's why comfort and ease of operation were crucial for the young entrepreneurs. It wasn't just a matter of "get on the tractor, press the clutch, put it in gear, step on the gas and shift up until the last powershift stage is engaged!!" - no, right from the start they paid attention to a good working environment: Air conditioning, perfect arrangement of the control levers, vibration and

During the harvesting season, the cabs of the Fendt tractors are the drivers "living room".







Manuel Kleinhans is completing his training as a specialist for agricultural services at Osters & Voß. Manuel Kleinhans quickly became familiar with the new FendtONE operating philosophy.

shock absorption or even tinted windows. This is one of the reasons why Osters & Voß have been relying on Fendt for their tractors for more than 20 years now.

From small beginnings, one of the largest agricultural contractors in Germany has developed over time. Today, the new Fendt 900 Vario series is particularly popular on site. The tractors have proven to be extremely reliable and only see the Osters & Voß workshop for routine oil changes.

## Time jump

The next generation feels the same way. Manuel Kleinhans was fascinated by working in the fields even as a child. But he didn't have to wait until he was grown up to be able to easily reach the pedals and drive the modern stepless tractors. From an early age, it was a matter of getting on and getting to the new multifunction joystick, which is equipped with additional functions. Every generation has its own demands in terms of comfort and operation. The designers at Fendt know this too.

When developing the FendtONE philosophy, intuitive and individual operation and working ergonomics were at the top of the list of requirements. It lets the horse and driver roll calmly towards the field. Once on the field, things become even calmer: the ergonomically optimised cross-shift lever ensures that implements can be operated with just a few grips. Pure technology. Manuel's father, Rainer Kleinhans, works as a technical trainer for Fendt. That's why Manuel's dream job was quickly decided: agricultural service specialist. Today, the 19-year-old is in his second year of training at Osters & Voß in Groß Gottschow.

## Step by Step

The manual aspects of the training are supplemented by commercial, creative and communicative content. Of course, this does not mean that the apprentice draws crop circles in a field with a tractor: This is not what is meant by creativity in agriculture. Manuel not only operates and guides agricultural machinery, but also maintains and services it. He also advises customers and markets agricultural services. This is now a matter of course for him. The ongoing digitalisation of the world of work and professions can change fields of work and requirement profiles.

In the past, his bosses drove directly to the pit with the slurry tanker and filled the barrel, but nowadays Manuel's way with the tanker - a Fendt 724 Vario with a 24 m<sup>3</sup> slurry barrel - first leads to the farm manager. The regulations is required by the fertiliser ordinance, as the permitted spreading quantity is strictly regulated. In order to be able to spread the slurry in compliance with the law and, if necessary, on a site-specific basis, the young man enquires about the desired application rate. He then enters the data into the terminal on the 724 and off he goes. Precision agriculture is possible thanks to the networking of big data and machines. To be equipped to use these technologies, skilled workers need to acquire the relevant knowledge.

And that's what the trainee has done. The smartphone is always in the digital native's pocket. Mobile apps have also become a standard in agriculture. They allow flexible use of the software at any time and any place, even outside the office. Manuel can receive work orders from the office at any time.

# Connection from the tractor to the office

The manufacturers have also recognised how important this is and so FendtONE now also has an offline version. No manufacturer can ignore digitalisation and modern agricultural software any more. Systems are interesting when they support the farmer in the core of his productive work.

When Manuel learned that 20 new Fendt Varios would be rolling onto the farm at Osters & Voß this year some of them equipped with the FendtONE technology now available for these series - he sat down at the PC with his father and studied the operation intensively. It is easy for him and he is sure that his colleagues will also quickly get to grips with FendtONE. "It's only a question of time until they have the three terminals under control," says the young man.

The new Fendt 700 Vario all have a 10" digital dashboard display, a 12" terminal on the armrest and a 12" terminal on the headliner. "You have to take time to get to grips with the new operating system. Once you understand the logic,



The contracting company received 20 new tractors from Fendt this year.

the processes are much faster and more logical and you can work through the increasingly complex tasks," explains the apprentice. However, he also admits that there is a small handicap: There are still

# "When a customer sees the added value a technology brings, they are willing to use it themselves."

some old tractors around, so you have to work with different systems. Around 100 Fendt Varios of the 700, 800 and 900 series are available for use by customers at the four operating sites of the Osters & Voß contracting company. This year, the first 20 tractors were replaced.

### Up to date

A few years ago, the Osters & Voß company faced a similarly large digital challenge. It is obvious to everyone that the handling of around 100 Fendt tractors, 60 trucks, as well as harvesting and grassland technology, wheel loaders and telescopic loaders, sugar beet harvesting technology, transport trailers, slurry tankers and numerous machines for soil cultivation, fertilisation and sowing can no longer be carried out with pen and paper. As early as 2014, the contracting company therefore invested in agricultural software that is used in the office and on the field, as the data can no longer be managed with offline solutions or Access databases. Information is captured digitally and data records are combined using smart algorithms.







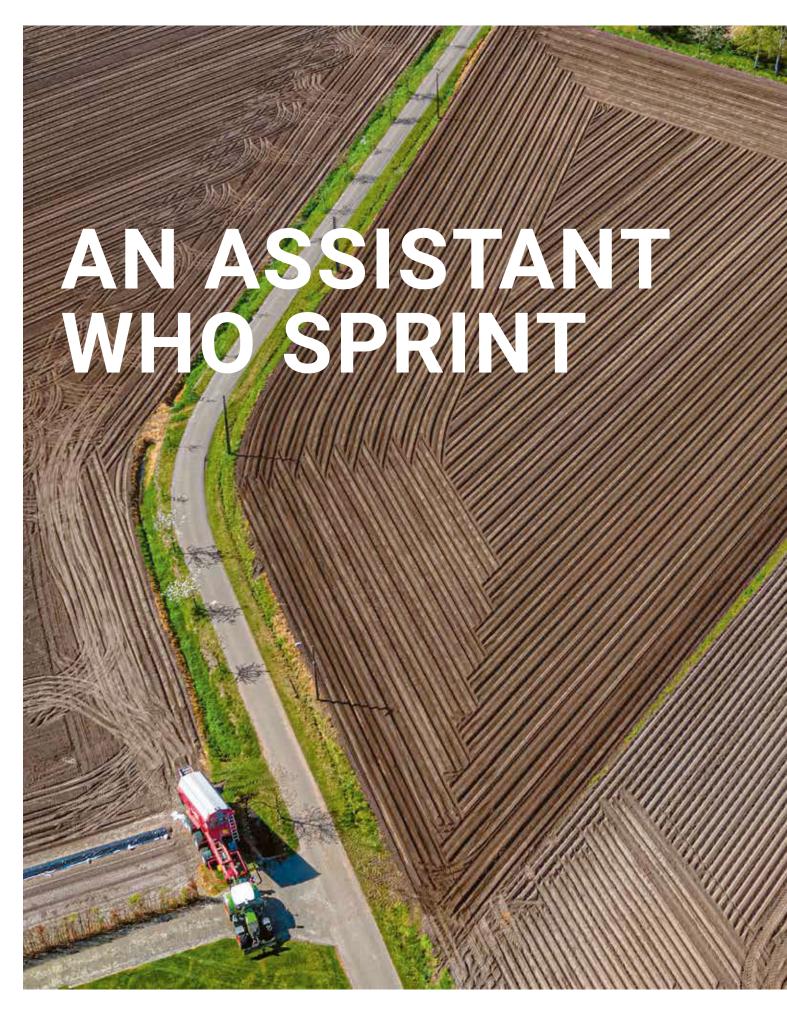


From the tractor to the office: The recorded data from the field work automatically converge in the company's online platform.

For the two entrepreneurs, it is important that they have an overview at their desks of where their employees and, above all, their machines are working. The drivers use a smartphone app to record what is happening in the fields: Who did what on which fields and when? All of the recorded data converges on the farm's online platform. Here, they are documented and automatically evaluated. In the future, further data will ben sources integrated. This is what customers now need from the contractor to maintain the field index.

Ultimately, the benefits that digitization brings only become apparent in practical application. "No matter what we tell the customer - if he sees that we use a technology and recognizes the added value it brings, then he is more willing to use it himself," explains Andreas Osters. The bosses also teach this to their trainees. As soon as Manuel Kleinhans is deployed for the first time in sowing, he not only has to be able to explain the technical aspects of the measures to the customers, but also shine with agronomic knowledge.

"Digitalization is a new business field for our company. Here we have the opportunity to install a very strong customer loyalty tool and set ourselves apart from the competition. The agricultural market is shrinking, the contractor industry is growing. That is why I am firmly convinced that Smart Farming is the only way forward. We are trying to prepare young farmers and agricultural service specialists for this in their training today," Andreas Osters sums up.





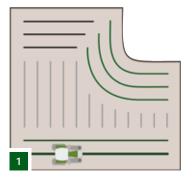
Anyone who spends a lot of time on the tractor appreciates any assistant that ensures precise results even after many hours and enables a relaxed end to the day. And that's exactly what Fendt's guidance aid, also known as the Fendt Guide, does. And for this there are the extensions "Fendt Contour Assistant" and "Fendt TI Headland", which we present here.

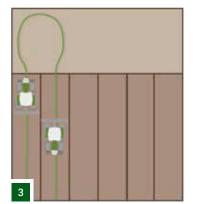
SMART FARMING

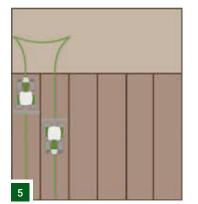
The cultivation of a field demands the highest concentration from the driver of the tractor, especially when working at night or in poor visibility conditions. If, on top of that, the implement always has to be lifted at the same height as the field boundary and the tractor has to be turned to the next track line, it quickly becomes stressful and the results leave a lot to be desired. The Fendt Guide provides a remedy. To use this, the tractor must be equipped with a NovAtel or Trimble satellite receiver.

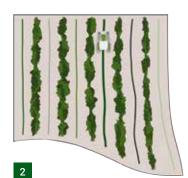
Requirements to be able to use the Contour Assistant on the tractor:

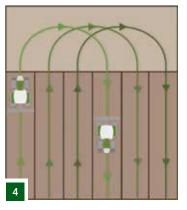
- → Tractor in the Profi+ equipment variant
- $\rightarrow$  10.4" Varioterminal
- → NovAtel/Trimble satellite receiver
- → Software option "Contour Assistant

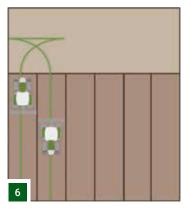












Even in the basic version, the Fendt Guide relieves the driver by recording the area that has already been worked, thus enabling good control. The driver's full attention can be focused on the implement. In addition, the Fendt Guide minimises the increased expenditure on operating resources that would otherwise be caused by unwanted overlaps are created. Also, thanks to intelligently planned turning manoeuvres, the field soil is compacted less and unnecessary passes are avoided.

Combined with the Fendt Contour Assistant, the inside of the field as well as all tracks on the headland can be processed with the Fendt Guide without the driver

## THE TRACK GUIDANCE FROM FENDT

Precision and relief with track guidance from Fendt	Fendt Guide
+ Extended track guidance for the inside of the field	Fendt Contour Assistant
+ Complete package for professional work on the headland	Fendt TI Headland

- 1 Create contour segments: They can either be recorded, calculated from the field boundary or generated from existing track lines.
- 2 Individual track segments: Several individually created track lines are combined in one data set. There is no calculation of parallel tracks.
- 3 U-Turn: The U-Turn mode is suitable for classic soil tillage operations with trailed implements.
- 4 Bed mode: The inside of the field can be divided into beds. This allows you to keep an overview of the area already cultivated, even in uncertain weather conditions.
- 5 Specially developed for field work with threepoint implements: In the Y-turn and...
- 6 ... the K-turn is a backward turn.

having to switch on the track lines on itself. In addition to the track line types "contour segments" and "single track", the new driver's workstation has the type "single track segments".

The Fendt TI Headland extension completes the guidance package: it consists of the VariotronicTI automatic/Fendt TI Auto products and the VariotronicTI Turn Assistant. With the VariotronicTI Automatic, the previously stored sequence of working steps not only runs automatically, but is also activated automatically depending on the position in the field. The individual sequences, such as lowering the rear hydraulics at a certain distance from the headland, are called up via the position determined by the track guidance system - a button no longer needs to be pressed for this.

The VariotronicTI Turn Assistant also supports the driver of the tractor during the turning process. The driver selects in the system which connecting lane he would like to approach next, and the tractor turns automatically - in U-, K- or Y-turn or also in bed mode, as required. K- and Y-turn modes are new and have been specially developed for use with three-point implements.

# JOHANNES LACHENMAYER AND TOBIAS RUF





# INTERVIEW

Both the Fendt Contour Assistant and Fendt TI Headland receive additional functions with the new driver's workplace. Our test engineers Johannes Lachenmayer (left) and Tobias Ruf explain what these are and how farms can best use them.

### 1. What is the Fendt Contour Assistant?

Johannes Lachenmayer: With the Fendt Contour Assistant, various waylines can be created in the field. In addition to the standard lines such as A-B and A-angle, contour segments or individual tracks can also be created. With the new driver's workplace, it is also possible to combine individual tracks into segments. This is particularly helpful in orchards and vineyards, as several individual single tracks can be combined into one segment.

# 2. What equipment must my tractor have so that I can use the Fendt Contour Assistant?

Johannes Lachenmayer: To be able to use the Fendt Contour Assistant, a tractor with Profi+ equipment is required. The 10.4" Varioterminal is indispensable. In addition, the tractor requires a satellite receiver from NovAtel or Trimble. The Fendt Guide is available from the third generation of the Fendt 200 series and is required to install the Fendt Contour Assistant software option.

#### 3. How does it work with the track line types?

Johannes Lachenmayer: To create the contour segments, I can traverse the field boundary and record it as I go. Subsequently, contour segments can be generated from this field boundary. Parallel waylines are calculated for my track line 0 and combined into segments.

It is different when recording the individual tracks: I have to record these individually. In contrast to the contour segments, the system does not record parallel path lines. The track is then traversed in exactly the same way as I drove it before - every curve or swerve is retraced.

In plantation systems, such as in orchards and vineyards, we quickly reached our limits with the already existing track line types "contour segments" and "single track". Over the years of cultivation, the track lines on such a vineyard can shift - it is then no longer possible to drive parallel track lines. This is why we have extended the Fendt Contour Assistant with the "single track segments" function. This is more or less a mix of the two track line types "contour segments" and "single track". For this I record each row in my plantation individually, parallel way lines are not created.

#### 4. What are the advantages of single track segments?

Johannes Lachenmayer: The advantage of the single track segments is that I can also use the Fendt Contour Assistant where I do not want to create parallel track lines. Besides the vineyard, this is an orchard, for example. In addition, I do not necessarily have to record a turn with the single track segments. So it is up to me as the driver how I perform the turn.

# 5. In which concrete application example are the single track segments indispensable?

Johannes Lachenmayer:Here I am again referring to viticulture: So-called "pointed rows" make the work more difficult. These are rows of vines which do not meet the field path at right angles, but which are pointed. This is, for instance, the case when the vineyard area in shape of a triangle is cut - which often occurs on slopes. This results in different angles between the lines, which makes machining more difficult. Due to the individual track segments, I only drive halfway down the pointed row. So long it is still parallel to the other vine rows. I can now create the track line of the next vine row at a different angle to it, so that the vine rows run parallel to each other.

## 6. What does Fendt TI Headland mean?

**Tobias Ruf:** The Fendt TI Headland consists of two products - the Fendt TI Auto and the VariotronicTI Turn Assistant. TI (= teach-in) is a very intuitive programming method. It allows the driver to "demonstrate" something to his system, he can record a sequence of functions and save it as a sequence. Afterwards, what has been learned in this way can be called up again at any time at the push of a button.

For example, the driver can define and save a sequence of work steps on the headland for a particular blow. This can be the lowering of the implement or the setting of the forward speed. When reaching a certain position in the field, these defined working steps are carried out automatically. Different implements with different working widths can also be stored for this purpose.

With the VariotronicTI Turn Assistant, I can also specify when the tractor should turn at the headland in the field. If I have set this, I no longer need to steer at the end of the field.

# "When a certain position is reached, defined work steps are executed automatically."

#### 7. Which functions are new on Fendt TI Headland?

**Tobias Ruf:**Until now, the VariotronicTI Turn Assistant offered two options for turning: either the tractor turned with a U-turn or in the so-called bed mode. Now there are also K- and Y-turns.

In addition, I can allow the turning operation to take place outside the field, i.e. the implement leaves the field. This allows me to decide for myself whether I want to use the field path or set-aside areas for turning.

## 8. When will the new turning modes be available?

**Tobias Ruf:** All tractors from the Fendt 300 series onwards that have the new driver's workplace and will be coming off the production line in Marktoberdorf from November onwards can be equipped with the software. An update of the existing software on other tractors will be possible in the first quarter of 2022.

#### 9. Automatic turning - isn't that only something for large companies?

**Tobias Ruf:** Automatic turning was originally developed for large farms with corresponding areas. But we also want to make it interesting for smaller farms and have therefore developed the K- and Y-turn. They are specially designed for the use of three-point implements.

A cultivator with a working width of 3 metres can be lifted out at the headland and also allows reversing. I can't do that with a large implement. The new turning manoeuvres take up less space than manoeuvres that I want to carry out in one go.

# We present you our novelties!

FENDT



**FEBRUARY 27 - MARCH 5, 2022** 

FENDT 718



# PURE ANTICIPATION

Agricultural machinery fans are starting to get nervous: after the postponement due to the Corona pandemic, the Agritechnica from 27 February to 5 March 2022 finally opens its doors in Hanover. Fendt has some new products in its luggage.

# TRACTORS ONE IS SIMPLE: FendtONE



# FENDT 500, 900 AND 1000 VARIO

With the new generations of the Fendt 500, 900 and 1000 Vario series, FendtONE has now found its way into three more tractor series. And thus makes the work easier both with the **new FendtONE driver workstation** directly on the tractor **onboard,** as well as in the preparation and follow-up of field work with FendtONE **offboard**.

# We present you our novelties!

# **FENDT 500 VARIO**

The Fendt 500 Vario combines compact size with performance and versatility in the field, in grassland and during transport as well as on the farm. With all FendtONE functions, the new generation offers easy entry into track guidance as well as system-supported documentation.

# GENERAL INFORMATION ABOUT THE FENDT 500 VARIO

## FendtONE operating philosophy:

 new driver workstation (onboard)

- planning and management functions with FendtONE offboard

Power segment 124 - 163 HP

## 3 front linkage variants

up to and including the exculpatory regulation

VisioPlus cabin in 3 different versions

Fendt Guide Track guidance with receiver selection

AutomaticSteering axle lock

Headland management as standard **Fendt TI** 

Fendt Reaction steering system

## Choice of numerous Smart Farming features such as Fendt TI Headland for professional work on headlands

**Software updateable:** Performance that grows with you **Front loader Fendt CARGO** with 3rd valve

Infotainment package + 4.1 Soundsytem





# FENDT 900 VARIO

The Fendt 900 Vario stands for unique flexibility and impresses with its low fuel consumption. With the FendtONE digital platform, you can plan, organise and document your work in the simplest way possible.

# GENERAL INFORMATION ABOUT THE FENDT 900 VARIO

# FendtONE operating philosophy:

- new driver workstation (onboard)
- planning and management functions with FendtONE offboard

Power segment 296 - 415 HP





# FENDT 1000 VARIO

The high-performance standard tractor Fendt 1000 Vario is now even smarter. FendtONE not only makes the driver's workplace smarter. Preparing and following up field work in the office is also made a lot easier with the help of FendtONE offboard. In addition, new technical features such as the optional automatic dust extraction and an extended engine oil change interval ensure that the Fendt 1000 Vario is even more economical than ever before.

# GENERAL INFORMATION ABOUT THE FENDT 1000 VARIO

FendtONE operating philosophy:new driver workstation (onboard)

- planning and management functions with FendtONE offboard

Power segment 380 - 517 HP

14 t unladen weight at up to 23 t permissible total weight\*

60" (1.5 m) trackable for Row Crop inserts; \*\*

Fendt VarioDrive variable 4-wheel drive

Fendt iD Low speed concept

Self-cleaning air filter (automatic dust extraction)

Full road capability **up to 60 km/h**\*

**Optional rear PTO** 1000, 1000E and 1300 new, specially developed for the Fendt 1000 Vario **row-crop tyres** with a diameter of 2.30 m

Integrated tyre pressure control system VarioGrip

**Reversing device** 



\*Value depends on country-specific legal requirements \*\*Depending on the country variant

9.0 I MAN engine

Fendt VarioDrive variable 4-wheel drive

Fendt iD Low speed concept 2-circuit hydraulic system

**Self-cleaning air filter:** automatic dust extraction

Integrated tyre pressure control system **VarioGrip** 

Front PTO

**Reversing device** 

Telemetry solution Fendt ConnectSafety locking system

# HARVESTING TECHNOLOGY

# FENDT SLICER

In 2017, Fendt introduced the Fendt Slicer and Fendt Former forage rakes for the first time and expanded the range in subsequent years with various mowers and windrowers. Now Fendt presents **a new generation of the front mower Fendt Slicer** and the new mower combination with a new design and options. The Fendt Former rake gets an update.

The Fendt Slicer range of disc mowers includes the front mower **Fendt Slicer 310 F, 310 F KC with tine conditioner** and **310 F RC with roller conditioner**. The 310 stands for a working width of 3.10 metres. Added to this are the **Rear mowers Fendt Slicer 860 and 960** with a working width of 8.60 metres and 9.60 metres in the versions without conditioner. The rear mowers can be positioned further inwards or outwards via two pins to achieve the optimum overlap with the front mower. In this way, the rear mower can be combined with various front mowers with a working width of between 3 metres and 3.50 metres.

Both the new generation of front disc mowers and the rear disc mowers have been **completely re-developed.** Thanks to its lightweight construction, the Fendt Slicer 310 F saves **up to 60 kilograms weight** compared to the predecessor model. With the rear mower combination, the new design means that **up to 350 kilogram weight** can be saved compared to the predecessor model.

- Power requirement is reduced
- Ground pressure is reduced
- Fuel is saved







# FENDT TIGO VR

In the professional segment of loader wagons, the Fendt Tigo PR and XR have been in use up to now. In the future, the Fendt Tigo VR 65 and Fendt Tigo VR 75 models will complement rage area with a Loading volume from 37 to 42.5 m<sup>3</sup>. Like the other models, the Fendt Tigo VR has a Multifunctional front wall with VarioFill, which at 80° can be swivelled. With the uncontrolled pick-up, a working width of 2 metres is realised. In this way, the Fendt Tigo VR meets the requirements of large farms that rely on their own mechanisation. The pick-up is equipped with seven rows of tines, which ensures a high throughput. With TIM (Tractor Implement Management) and Fendt Stability Control, the Fendt Tigo VR also has many smart solutions on board.





# **FENDT FORMER**

A lot of time is often lost in grassland due to getting on and off the tractor to prepare the machine - this is now no longer necessary. The new generation of the Fendt Former 12545 and the ISOBUS-capable Fendt Former 12545 PRO now have an **hydraulically lowerable undercarriage**. This means that even in transport position the Fendt former reaches a height of **under 4 m** and there is no need to remove the tines before transport. In order to increase the resistance of the Fendt former to external influences, a **new paint** which, even after an endurance test, is still **of 480 hours in the salt spray still shines flawlessly.** This is ensured by a high-strength primer, which also significantly increases the UV resistance.

# HARVESTING TECHNOLOGY

# FENDT ROTANA

In the new 2022 model year, the Fendt Rotana has the option of the **direct foil binding**. With this option the bales are**pressed and wrapped exclusively with foil**, the disposal of the net is no longer necessary. In addition, the bales are easier to open. In sub-zero temperatures, less forage freezes and losses are reduced. As the option of net binding is still available, the rollers have been positioned so that the change between net and film binding can be made quickly.





# COMBINE

The **Fendt IDEAL** holds additional options for the 2022 model year for the **Track guidance system and straw distribution** ready. For some years now, customers of a Fendt IDEAL have been able to equip their combine harvester ex works with the Fendt VarioGuide track guidance system and a receiver from NovAtel or Trimble. Now they can also use the **Correction signal RTK** in favour of a **Tracking accuracy of 2 cm** order directly ex works.

The cleaning system of the Fendt IDE-AL 9 has been revised: This is supported by a **increased cleaning power** contribute to an even higher overall performance of the machine.



In the new cleaning system, the grain passes through **two curved double drop steps** onto the top sieve. Thanks to the curved shape, the heavy grains collect in the lower part and the light parts at the top due to physical laws.

The curved steps of the cleaning system provide a wider air outlet, which means that the **Air volume significantly increased** and the **Cleaning even**  **more efficient** will be. With the aid of two drop stages, the largest proportion of short straw and chaff can be separated in the first stage. The remaining non-grain components are separated in the second stage. The cleaning system has four sections. Two return floors ensure even cross distribution and feeding of the preparation floor. Especially for difficult harvesting conditions,

the straw spreader was **ActiveSpread SwingFlow** developed. ActiveSpread SwingFlow is an additional option in the straw spreaders, which are **even in humid harvesting conditions** an **more even distribution** achieved.

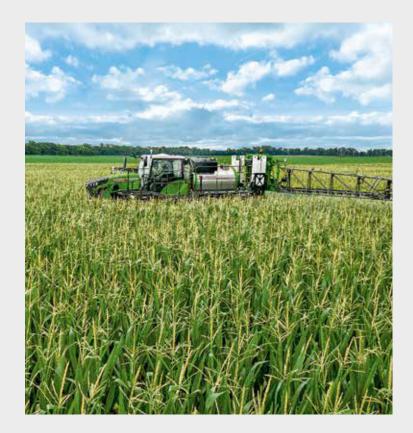
The Schüttler combine harvesters of the **E-, L- and C-Series** will meet the European Stage V emissions standard in model year 2022.

# **APPLICATION TECHNOLOGY**

# FENDT ROGATOR 900

AGCO's Rogator has been developed, produced and used in the USA for over 20 years. Now the machine has been **completely revised** and is available as the Fendt Rogator 900 in selected markets. The **Self-propelled for application and fertilisation** was designed for use on large surfaces worldwide. For the first time, the-**Self-propelled chassis raised to up to 1.93 metres** be used. The design of the machine enables a **quick changeover** between different superstructures for application and fertilisation.

The Fendt Rogator 900 series consists of **five models**, the Fendt Rogator 932, 934, 934H (High Clearance), 937 as well as Fendt Rogator 937H with a power range from 290 to 369 hp (216-272 kW). The Fendt Rogator 900 has a **Outer width from 3.91 to 4.49 metres** and is therefore particularly suitable for use on large areas in North and South America, Australia and Eastern Europe. It complements the product range for farmers with large-scale agricultural operations. It consists of the Fendt MOMENTUM precision air seeder and the Fendt IDEAL large combine harvester.



"Conversations with my father quickly evolved into passionate discussions about innovative thinking and future advancement of the company."

> After graduating in International Economics and Finance in Milan, you moved on to London for your career - what brings you back to your home country of Lithuania now?

When the first wave of the Corona pandemic hit the world at the end of March 2020, no one knew how the situation would develop. That's why I decided to work from my home office in Lithuania. On the sidelines of my actual work, I was also always interested in the issues of our family-

# A breath of fresh air

Monika Tarvydytė has an impressive CV: A degree in International Economics and Finance in Milan, investment banker in London, now Managing Director of the first Fendt dealer in Lithuania. She puts her heart and soul into driving the company's development forward.

run company Ivabaltė, which distributes agricultural technology in Lithuania. Conversations with my father quickly developed into passionate discussions about innovative thinking and future development of the company. I saw my chance to be part of this and to accompany Ivabaltė's transformation process.

## Ivabalte was founded 26 years ago by your father. How did it come about that the company became the first and only distributor of Fendt in Lithuania?

As an engineer for agricultural machinery, my father placed particular importance on the quality of the tractors and harvesters. He quickly realised that his requirements could not be met with the technology on offer from Eastern European countries. He looked for alternatives in Western Europe. There, the technical possibilities in agricultural technology were simply more mature. In the process, he came across the Fendt brand, which is considered the number 1 among agricultural machinery manufacturers. When a representative from Fendt visited our Ivabalte company, the two men immediately hit it off: not only did they share a passion for high-quality agricultural technology, but they also had a soft spot for the products of a major German car manufacturer - and so the collaboration with Fendt was born.

## The company has tradition and years of experience in the sale of agricultural machinery - what do you want to change with your position as Chief Operating Officer?

Ivabaltė is going through a process of change to adapt to the new generation of farmers. In my first year as COO, I focused on developing a strategy for the company we formulated our vision, mission and clear goals. These help us to keep our projects firmly in sight for the next one to three years. To this end, we defined indicators by which we can measure our success in implementing the measures. It was important to me to significantly streamline processes and introduce flat hierarchies while integrating new managers and other professionals into our team.

I also focused on improving the quality of the services offered to our customers. To do this, we restructured the after-sales service department and achieved a productivity increase of almost 20 percent. We also worked hard to promote the entire Fendt product range - we conducted up to 120 demonstration tours for various machines, held a large field day for forage harvesting technology and had a stand at an international agricultural exhibition in Lithuania. I know that Ivabalté has great potential and interesting projects are waiting for us. "These days, it shouldn't matter what gender you are when it comes to running a successful business."

## Your position involves a lot of responsibility - what was your motivation for wanting to take on this position?

Ivabaltė is my family's company. Even as a child I was often in the company, doing small tasks for the team while my father went about his work. Ivabaltė is close to my heart. Through my education all over the world, I came back to Lithuania with a lot of ideas and the desire to build a western-style company. I want to implement this to make Ivabaltė an even better partner for our employees and business customers. I like to share my enthusiasm and motivate my team. I believe that my work can inspire other people to pursue their dreams and make a positive contribution to the family business.

# What do you pay particular attention to in the change process?

It is important to me that the Ivabalte team is enthusiastic about the changes. Only in this way will we be able to achieve our goals. I rely on extensive training and further education of our employees so that they can fully exploit their competencies. I like to be in close contact with my colleagues in order to create a motivating working environment for them. In doing so, I want to respond to the ideas, thoughts and fears of each individual. Through our respectful interaction with each other, internal communication has improved significantly: we are not afraid to honestly express feedback and criticism. The team has grown together and is working together on the future. Getting involved and driving Ivabalte's visions forward together should be more of an incentive than the monthly paycheck.

## Does it help that you're a woman?

I believe that women are naturally more open with their feelings and better able to show empathy. On the one hand, this has a positive effect on cooperation with my team and, on the other, it brings advantages in negotiations. I find it much easier to talk to the new generation of farmers than my father, for example. On the other hand, his experience helps when communicating with the older generation. Nevertheless, I am of the opinion that gender no longer plays a role nowadays when it comes to successfully managing a company and achieving positive results.

## The agricultural industry is very much dominated by men. Were there no prejudices against a woman as managing director of an agricultural machinery dealer?

I'm sure some of my clients were curious about this development. But the results I have achieved and the way I do my job have shown them that I am the right person for the job. I listen to them and address their needs and concerns. For them to have that trust in me, I had to work just as hard as a man would have had to. Nothing was given to me and our business clients and partners respect that. During my time abroad, I have already gained experience in leadership positions: I led student organizations, was a board member at my university's alumni association and a member of the board of the Lithuanian professional club LCLC in London.

# What are the current challenges facing farmers in Lithuania?

Farmers in Lithuania are mainly engaged in intensive arable farming. The farms are becoming larger and cultivate more land. Small farms are often no longer competitive. A major problem is the shortage of labour - many well-trained specialists have left Lithuania and sought their fortune in neighbouring countries. Ever larger areas have to be farmed by fewer and fewer people.

In addition, we - like the rest of the world - are concerned about the advancing climate change. Harvest windows are becoming significantly shorter. This increases the pressure on farmers to harvest their crops quickly and efficiently.

"I listen to my team's ideas and thoughts - this creates a motivating work environment."

# How do Fendt machines help farmers to cope with these tasks?

With the large tractors from Fendt, it is possible for farmers to cultivate large areas more efficiently and quickly. The machines are also very fuel-efficient, which saves money. The new FendtONE operating concept also makes it easier to document field work and plan work. Operation is simple, so that even less experienced drivers can find their way around. The smart farming solutions marketed by Ivabaltė help farmers to manage their farms more efficiently, sustainably and innovatively.

# What is the future of agriculture in Lithuania?

In other parts of the world, robots or drones are already being used to cultivate fields. In Lithuania, we are still a long way from this development. I would like Ivabalte and our customers to remain open to new technological developments. They enable us and Lithuanian farmers to use resources more sparingly and to increase productivity in the process. It is my concern to support our customers in this transformation to smart agriculture with appropriate machines.

Thank you very much for the interview! The interview was conducted by Christiane Pietsch.







## ABOUT THE PERSON

→ Monika Tarvydytė, 25, was born in Lithuania and grew up with two other sisters. Her father founded the agricultural company lvabalt 25 years ago.ė. lvabaltė is the first and only company in Lithuania to distribute Fendt machines.

## $\rightarrow$ <u>STUDY</u>

International Economics and Finance at Bocconi University, Milan

## $\rightarrow$ <u>AS OF 2018</u>

Monika Tarvydytė went to London after studying in Italy to work at Jefferies as an investment banker, later moving to a company that invests in promising start-ups.

## $\rightarrow$ <u>SINCE SEPTEMBER 2020</u>

Entry into the family-owned company lvabaltė as Chief Operating Officer

 $\rightarrow$ <u>FREE TIME</u>

dancing, visiting art exhibitions, business psychology

1 The success of Ivabaltė lies Monika Tarvydytė particularly close to his heart.

2 Monika Tarvydytė brings a breath of fresh air to the family-run Ivabalte company.

3 It is easy for her to get into conversation with the new generation of farmers.

Extreme weather conditions are increasingly shortening the available harvesting windows - to meet this challenge, farmers around the world are opting for the Fendt IDEAL. Three farms report on their experiences with the black giant.

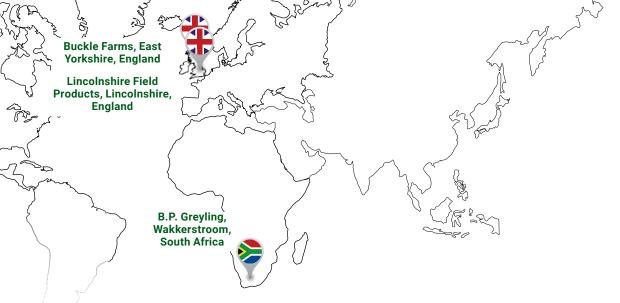
# BUCKLE FARMS, EAST YORKSHIRE, ENGLAND

With around 1,800 hectares, the Buckle family farm is located on the east coast of England, just a few kilometres from the sea. The River Humber, which passes very close to the farm, flows into the North Sea. A strong sea breeze, which characterises the location, provides moisture and heavy soils droughts hardly ever occur here. The family cultivates half of the acreage with wheat. A typical Crop rotation includes winter wheat, barley, rape and wheat, followed by forage peas. The farm also has a separate livestock farm. The grass silage required for this is also obtained from the family's land. A large proportion of the straw produced is baled and sold. An on-farm mill grinds wheat and barley into animal feed. Farm Manager Rob Buckle has to contend with the fact that he only has very limited time slots during harvesting, which he has to make the best possible use of. When the previous combine harvesters were due to be replaced, he was therefore particularly keen to increase capacity with the new machines.

After a demonstration on their own farm, the decision was quickly made in favour of two Fendt IDEAL 9Ts. The combine harvesters, which are equipped with a crawler chassis, have a cutterbar width of 12.2 metres - which is significantly more than the previous width of 10.5 metres. Rob Buckle







wanted to increase the work output with the wider cutterbars.

# Minimal losses, high performance

Rob Buckle made a point of ensuring that his new Fendt IDEAL 9Ts were equipped with IDEALharvest - a system used to automate the combine.

Depending on the harvesting strategy selected by the operator (e.g. minimising broken grain, minimising grain losses or optimising grain cleanliness), the rotor and blower speeds, the top and bottom sieve openings and the rotor speed are adjusted to suit. as well as the travel speed automatically. Acoustic sensors along the rotor and cleaning shoe measure the crop load and display it in relation to the capacity of the threshing and cleaning systems, including losses, in real time on the terminal.

A camera provides images with which the grain quality can be checked. In this way, the driver recognizes capacity reserves or limitations at an early stage in order to be able to adjust the settings accordingly. An additional advantage is that, due to the constant monitoring of the cleaning The automatic adjustment of the sieves allows potential overload situations to be detected and losses to be prevented.

## Well looked after

Ryan Wilson and Ben Smith drove the new combines on the Buckle family's farm during the harvest - for both it was their first season as full-time combine operators. The familiar Fendt controls, which the operators already knew from other machines, made it easy to get used to the Fendt IDEAL 9T. An additional plus point



was the support by their local Fendt dealer: Not only did the drivers receive intensive training in their new combines, but they also had the mobile phone number of the Fendt Product Specialist Ant Ribson, who was always available for the drivers if they had any questions.

## Get it all out

During the harvest, the Fendt IDEAL showed what stretched it. After a wet winter and unfavourable weather in the spring, the crops at Buckle Farm were patchy. However, with IDEALharvest, the combine responded immediately to the slightest changes in crop density, adjusting the work rate to maintain quality and minimise losses.

"Through the displays on the terminal, I knew exactly what was happening in the combine. With this information, I could make informed decisions to further improve performance. In real time, I could see the results that my decisions had produced.



Combine operator Ryan Wilson is pleased with the performance of the new IDEAL 9T.

The results achieved on the two combines are clever," says driver Ryan Wilson. Operations Manager Rob Buckle is also convinced that easy access to the precise performance data of the two combines promotes healthy competition between the drivers: "The drivers experiment with the settings to achieve the best results. That benefits us all," he is sure.

Ben Smith is particularly impressed with the SuperFlow cutterbar on the

Fendt IDEAL, which helps him well in the harvest of laid barley. "The underside was wet and much of the crop was lying on the field, but the cutterbar managed the task effortlessly and without the use of lifters. Spot harvest rates were around 60 tonnes per hour at an average speed of 6mph. Losses were minimal."

The Fendt IDEALs have secured a permanent place in the machinery at Buckle Farm, because Rob Buckle is convinced of his investment in the new combine harvesters from Fendt and his employees are of the same opinion.

# GENERAL

**Name** Buckle Farms

## Location

East Yorkshire, on the east coast of England

**Combine harvesters used** 2 x Fendt IDEAL 9T

**Equipment** Crawler chassis, PowerFlow cutterbars with a working width of 12.2 metres, IDEALharvest

With the 12.2-metre cutterbar, the work output is increased and the tight harvesting time windows can be optimally utilised.

# B.P. GREYLING, WAKKERSTROOM, SOUTH AFRICA

Wide fields stretching to the horizon, where the rye sways in the gentle wind. The Fendt IDEAL 8 makes its steady rounds on them - a novelty for farming in South Africa. B.P. Greyling bought the black combine harvester with twin tyres for his farm in Wakkerstroom. Here he raises cattle and sheep and cultivates soya, maize and rye, among other crops, on his fields.

## **Demanding grain**

Rye in particular is demanding during harvest. Combines that are usually used in South Africa were not able to meet the requirements. "We have to harvest the rye with an extremely high drum speed and closed threshing concave. The Fendt IDEAL is equipped with a double rotor, so the separation of grain and chaff is incredibly good. In addition, the grain does not fall directly onto the sieve afterwards, but is guided over a long preparation floor. In this way, the chaff is separated cleanly in several stages," explains B.P. Greyling enthusiastically. He is certain that there is currently no other combine harvester on the market that can do what the Fendt IDEAL can do.

B.P. Greyling believes that new technologies only work effectively if they are user-friendly. "The combine's systems are very simple and easy to understand, and AGCO's technical specialists gave us the training we needed to make the most of all the features."

Robbie Hall, AGCO Africa marketing manager, explains that the combine is a market leader because of its unique design. "Fendt engineers have designed the combine from the ground up to meet the needs of the modern farmer. Many changes have been made to take this combine harvester to the top in terms The Fendt IDEAL 8 is used in rye in South Africa.

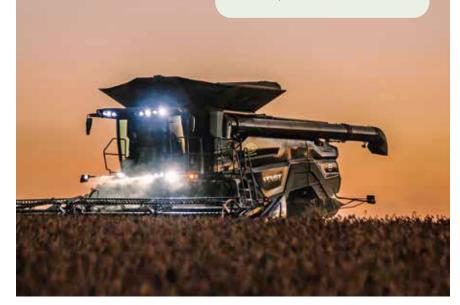
## GENERAL

Name B.P. Greyling

**Location** Wakkerstroom, South Africa

**Combine harvesters used** 1 x Fendt IDEAL 8

**Equipment** Double tyres, double rotor





B.P. Greyling is proud to be the owner of a Fendt IDEAL.

of efficiency and operator friendliness. This really is the ideal combine - hence its name," says Robbie Hall.

## A service that is right

In order to support farmers in their tasks in the best possible way, you first and foremost need a good product. But after-sales service is also crucial to success. Werner Nel, Managing Director of JWL Agricultural Services, the local AGCO dealer in the Wakkerstroom region, says: "Even if you have the best product in the world, it's no good if you can't back it up with the after-sales service it needs."

During the season, the machine should have as little downtime as possible in order to get the crop into storage guickly. "With the owner's permission, I have direct access to the machine data as an AGCO representative. 50 hours before a check by the service department is due, I am informed. We guickly find a solution and the waiting time for the farmer is reduced. In this way we ensure that the equipment breaks down as little as possible and is productive and profitable all the time," says Werner Nel about AGCO's service. B.P Greyling is absolutely convinced of this service and the performance of the machine and would always choose the Fendt IDEAL 8 again for his farm. →



Lincolnshire Field Products opted for a Fendt IDEAL 8T - it is best suited to the size of the acreage.

# LINCOLNSHIRE FIELD PRODUCTS, LINCOLNSHIRE, ENGLAND

When two old combines were due to be replaced with new ones, Lincolnshire Field Products chose two Fendt IDEAL 8Ts, which have now completed their second season with flying colours.

Lincolnshire Field Products (LFP) farms approximately 6,700 hectares of agricultural land. The majority is used to grow vegetables and root crops, with 1,800 hectares devoted to cereals. Crops grown include peas, wheat, beans and rapeseed. The wheat is mainly used as fodder. Some of it is used as seed. Almost all of the straw is baled and used to cover carrots or sold for energy production and livestock bedding.

The farm's machinery is predominantly Fendt tractors, supplied by local AGCO dealer Chandlers Ltd. "Fendt tractors are reliable, efficient and have excellent ergonomics, which is very important for our full-time operators," explains Paul Langford, senior farm manager at LFP. "They also hold their value very well."

## High performance convinces

With such a large area of grain to harvest, high output is essential to make the most of suitable weather windows. "Our dealer couldn't initially offer combines with the power we needed, so over the years we tested a number of different brands to find the ideal machine," says Paul Langford. "In 2009 we bought our first combine, which was replaced by another brand after five years. Although both offered the capacity we wanted, rotary separation was aggressive and straw quality suffered. When we heard that the Fendt IDEAL was in development, we were immediately interested. We saw that the Fendt IDE-AL was special and would give us the performance we needed."

"When we discussed replacing the farm's existing combines, efficiency and increased output to reduce harvesting times were the most important factors. They also wanted the new combines to run on tracks," adds Clive Barber, Fendt product specialist at Chandlers. As a result, Paul Langford ordered two Fendt IDEAL 8Ts with 10.5 metre PowerFlow cutterbars to replace two 9 metre machines for the 2019 harvest. "Our priority was to achieve high forward speed without losses. As the Fendt IDE-AL had only been available for a short time, we anticipated teething problems, but were confident that if any issues arose, we would be well looked after by Fendt and the Chandlers team," adds the farm manager.

harvesters IDEALharvest

The tracks were chosen to protect the soil, which ranges from mud to heavy clay and suffers from compaction almost everywhere. They are also preferred to tyres for road use and allow transport speeds of 40 km/h.

## User friendly operation

Ben Walker has been driving the combines at LFP since 2002 - the Fendt IDE-AL 8T is his new workplace. The machine is equipped with IDEALharvest. The system gives Ben Walker real-time information about what is going on in his combine.

The driver can assess the grain quality via images from a camera. IDEALharvest uses the collected data to automatically adjust the combine's systems, so that the quality or losses are within the specified parameters and the work output is maximized. As the capacity of the cleaning tank is constantly monitored and adjustment is automatic, potential overload situations are detected before they occur, minimising losses.

"To get the best out of the combine, I used to have to guess what was going on inside the combine. IDEALharvest, on the other hand, provides a real-time visual representation of the entire process on the screen," explains Ben Walker. "This means I can see exactly what's happening inside the combine at all times. If there are problems, I know why, and if it's going well, I can improve it further."

Ben Walker looks back on many years of experience and trusts himself to set the combine optimally when harvest conditions are constant and the crop is good. "But conditions often change within fields and throughout the day. This year's crops were particularly variable as the ground was wet over the winter. If the crop is thin, I would tend to increase the forward speed when operating manually, the crop will be thicker. I would slow down the speed. IDEALharvest does that too, but it simultaneously sets the threshing and cleaning systems for optimum results and continues to do so throughout the day. A driver would not be able to maintain this performance," he is sure.

### Facilitate documentation

The farm also uses VarioDoc Pro. The system facilitates the exchange of task and management data between the machines and the office. Before entering a field, details of the fields to be worked are sent from the Farm Management System (FMS) to the combines. When the combines enter the field, the location is

> With IDEALharvest, the combine operator always knows what is going on in his Fendt IDEAL.





Ben Walker (left) and Alex Robinson appreciate their new combines.

detected and the boundary and guidance lines are automatically loaded. The system automatically sends the recorded yield and moisture data to the FMS as soon as the field is harvested.

### Convincing results

Although the harvest was patchy due to unfavourable weather in winter and spring, the Fendt IDEAL 8T achieved spot rates of 60-65 tonnes per hour in wheat. Straw quality could be compared to that of a straw walker combine. The grain sample was excellent with minimal grain damage. Losses are considered negligible.

"This is the kind of performance we were hoping for from a combine of this size," adds Ben Walker. "In seed production, it's important to achieve maximum grain quality. We wanted higher work output and intact straw. The Dual Helix rotors provide a huge threshing and separation area, which means the crop is not crushed or bruised. Instead, the straw is handled gently, making it perfect for baling."

### Economical on the road

Another plus point of the Fendt IDEAL was evident in its fuel consumption. Although the combines deliver a higher output than the machines previously used, they required significantly less fuel. Each combine consumed around 800 litres of fuel on a typical working day at Lincolnshire Field Products. Compared to the previously used combines, this is a saving of 30 litres per hour or 400 litres per day.

"We are very happy with our decision to invest in the Ideal 8T," confirms Paul Langford. "We wanted higher output, lower fuel consumption and the best possible straw quality, and all these requirements are met by the Fendt IDEAL 8T."





Silage maize is in demand as an energy-rich staple feed, but it is particularly susceptible to weed infestation when young. The Swiss Future Farm investigated various measures for mechanical weed control and their effect on yield and contribution margins.

As mechanical weed control becomes more widespread, farmers face a number of questions that are being investigated in practical trials at the Swiss Future Farm in Tänikon (Canton Thurgau, Switzerland): Which method is most effective for mechanical weed control? Can yield losses be expected with mechanical weed control? Are there additional costs compared to chemical weed control with the field sprayer?

A trial in silage corn conducted in the 2020 season compared the difference between reduced-herbicide, herbicide-free, and chemical methods of weed control to show the cost and yield differences in addition to the efficiency of each method.

# Design of the experiment

In the trial, eight 15-metre-wide trial strips were laid out on a 2.8-hectare trial area with silage maize. For this purpose, a two-year old grassland parcel was turned over. After seedbed preparation with a power harrow and sowing with a precision air seeder with 50 centimetre row spacing and Fendt Guide RTK, all test strips were rolled. This was no problem for the driver of the tractor, who, thanks to the support of the Fendt Guide, →

# BUNDLED KNOWLEDGE: SWISS FUTURE FARM AND FENDT





# SWISS FUTURE FARM

With the Swiss Future Farm (SFF) located in Switzerland, the three project partners AGCO Corporation, GVS Agrar AG and the Arenenberg Education and Extension Centre are creating a basis for agricultural technology research and development in conjunction with an intensive exchange at eye level with farmers. This is a response to the changes in agriculture: global digitalisation is making the use of innovative technologies increasingly important on farms too. State-of-theart machinery and software are in use under real conditions at the SFF trial farm in Tänikon. Farmers. experts and visitors gain insight into how data is collected, continuously evaluated and incorporated into the development of new technologies and farming methods.

# Swiss Future Farm in figures

81 ha of agricultural land 55 ha Arable crops 20 ha permanent grassland 6 ha Biodiversity areas 65 dairy cows 55 Mother pigs could fully concentrate on the work equipment. The Swiss Future Farm staff chose a row spacing of 50 centimetres in maize, as this had already proved successful in sugar beet. The trial strips were cultivated with different combinations of weed control methods. Blind harrowing in the pre-emergence and harrowing in the emerged crop, hoeing with a camera-assisted hoe, the application of herbicide by band spraying and conventional field spraying and sowing an undersown crop in the maize crop were selected.

# Measured success

The Swiss Future Farm, located in Switzerland, with its experimental plots.

> The weeds in the germination to 4-leaf stage of the silage maize could be removed well with the harrow. However, the harrow had no effect on individual tufts of grass that had grown through.

In order not to damage the maize plant, it is important to pay attention to the aggressiveness of the harrow setting. In addition, the driving speed should be adjusted accordingly.

The hoeing pass cleanly undercut the weeds and eliminated 75 percent of the grass clumps. The finger hoes in the row showed little control success in the trial area. The subsequent evaluation showed that only 1-3 percent weed infestation was observed in all methods after implementation of the measures. This means that mechanical and chemical weed control were equally successful. This in turn confirms the effectiveness of all methods when they are optimally timed. Warm temperatures and rapid maize growth closed the rows, which further counteracted weed resurgence. In the control plot, where no weed control had

# "To avoid damage to the corn, the harrow setting should be adjusted."

been carried out, it was possible to see how strong the weed pressure actually was on the trial plot.

# Influence on yield

The average yield on the trial area was 20.3 t/ha dry matter and ranged between 18.3 t/ha (V8 = image harrowing + 2x harrowing + undersowing) and 21.5 t/ha in the subplots and methods.(V3 = herbicide). The highest yield was achieved with herbicide application, but the herbicide-free trial variant V6 (blind harrowing in pre-emergence + 2x harrowing) showed only a slightly lower yield with 21.1 t/ha dry matter yield.

# Costs in view

The process costs were between 156 CHF/ha (V4 = 1x harrowing + 1x hoeing) and 352 CHF/ha (V8 =

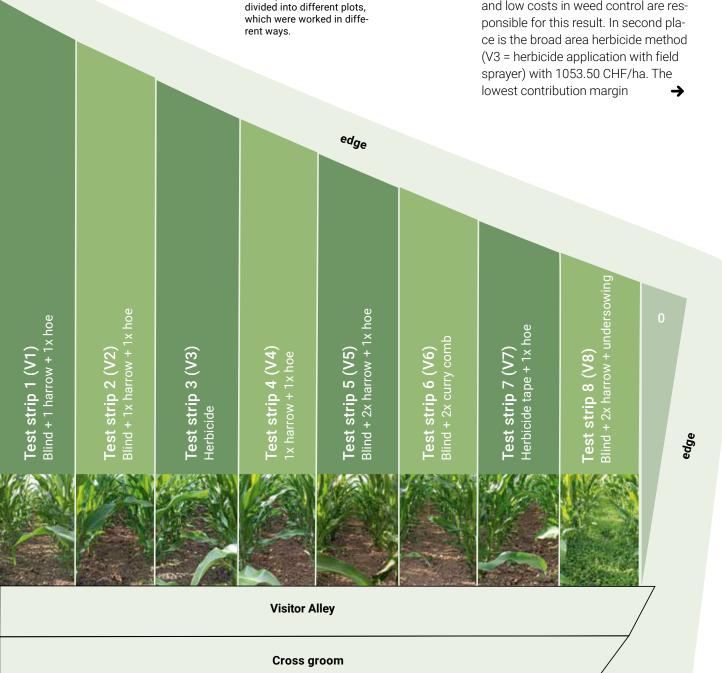
Blind harrowing + 2x harrowing + undersowing). The experimental variant with undersowing was the most expensive variant due to the costs for the seed (Figure 7). Despite the high area performance, the pure harrowing method (V6 = blind harrowing in pre-emergence + 2x harrowing) was only the second cheapest method due to the three passes. As a combination of measures with the lowest process costs

The experimental field was

The test variant V4 (1x harrow + 1x hoe) proved to be the best. This was achieved by a low pass frequency and high impact force (harrow with 15 m working width).

# Harrowing brings high contribution margins

The contribution margins (DB2, including machine, labour and input costs) for all methods are shown in Table 2. With 1190 CHF/ha, the highest contribution margin was achieved in the harrowing method V6 (blind harrowing in pre-emergence + 2x harrowing). Very good dry matter yields and low costs in weed control are responsible for this result. In second place is the broad area herbicide method (V3 = herbicide application with field sprayer) with 1053.50 CHF/ha. The lowest contribution margin →



"All procedures are effective when optimally timed."

was achieved in the procedure with undersowing (V8). This is also due to the fact that the undersowing cannot be used further after the maize harvest and the soil-improving effect cannot be evaluated in monetary terms.

# Conclusion for the practice

Whether mechanical weed control methods should be used on a farm as a substitute for or in addition to chemical crop protection is difficult to answer in general terms. A precise farm-specific consideration is advantageous in view of the large number of attachments available on the market for mechanical weed control. In addition to the purchase costs and the suitability for the respective soil properties and crops, it must be examined to what extent an inter-farm use, for example in a machinery pool, makes economic sense.

For the calculation of the process costs, based on the respective national or regional cost rates, detailed calculation bases are freely available through organisations of agricultural research and advice for farmers (Germany: KTBL web applications, Austria: ÖKL guideline values, Switzerland: Agroscope machine cost report).

The use of Fendt Smart Farming technologies is particularly suitable for crop protection. The Fendt Guide automatic steering system has proven its worth in terms of work quality and comfort. The RTK correction signal guarantees work with maximum precision between the rows during mechanical weed control and allows full concentration on the implement. In addition, the Section Control automatic part-width section control is also available for hoeing implements, which prevents crops from being hoed out at the headland.

# COST OVERVIEW OF THE EXPERIMENT

# Process costs for weed control

Wetween CHF 156/ha and CHF 352/ha

# Most expensive variant

Experimental variant with undersowing →on account of the cost of the seed

# **Cheapest variant**

Experimental variant V4 (1x harrowing + 1x hoeing). →achieved by low, passage frequency and high impact force (harrow with 15 m working width)

# Second cheapest option

Test variant V6 (blind harrowing in pre-emergence + 2x harrowing)  $\rightarrow$  caused by three necessary passages

# **Highest contribution margin**

For the harrowing method V6 with 1190 CHF/ha (blind harrowing in pre-emergence + 2x harrowing) → very good dry matter yields and low costs in weed control provide for this result

In second place is the broad-spectrum herbicide method (V3 = herbicide application with field sprayer) at 1053.50 CHF/ha.

# Lowest contribution margin

In the procedure with undersowing (V8 = blind + 2x harrowing + undersowing) achieved



You can find further information underwww.swissfuturefarm.ch or by scanning the QR code

# THE EXPERIMENT AT A GLANCE

# Structure of the individual test strips

# Process comparison in silage maize

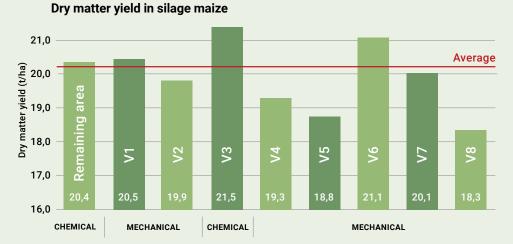
PROCE- DURE	BLIND GROOMING	CURRY	НАСК	BROAD HERBICIDE	BAND SPRAYING	UNDER- SEED
Rand				1x		
V1	1x	1x	1x			
V2	1x	1x	1x			
V3				1x		
V4		1x	1x			
V5	1x	2x	1x			
V6	1x	2x				
V7			1x		1x	
V8	1x	1x				1x
0						
Trans-	1x	1x				
verse		1.				

Strip rolling after seedbed preparation with rotary harrow, sowing with precision air seeder with 50 cm row spacing and Fendt Guide RTK

# Processing of the strips with different combinations:

- ightarrow Blind harrowing in the pre-emergence and harrowing in the emerged crop
- $\rightarrow$  Hacking with a camera-assisted hacking device
- ightarrow Application of herbicide
- $\rightarrow$  Sowing an undersow into the crop

# Measured success after the first harvest

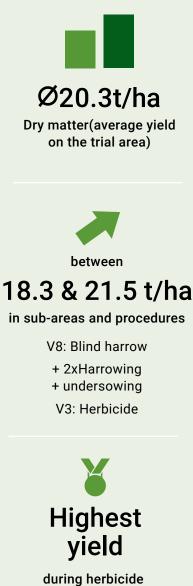


→ Weeds easily removable at the germination to 4-leaf stage

- → On driving speed and harrow setting take care not to damage plants
- → Chopping Pass: Weeds neatly undercut and tufts of grass at 75 per cent eliminates

# **RESULT** = only 1 to 3 % weed coverage!

# **Income statement**



application

21.1 t/ha

Dry matter yield V6: Blind harrowing in pre-emergence + 2x harrowing ↓ only slightly lower Yield

# Fendt FOCUS CURRENT



Maren Diersing-Espenhorst (4th from right) handed over the new Fendt 314 Vario to Bernd Sandker (back).

# With the luck of the draw to win the new Fendt 314 Vario

Since the end of August, a new Fendt 314 Vario including the new FendtONE operating concept has been running on Bernd Sandker's farm. The name of the Lower Saxon was drawn out the draw for the main prize from the aerial photo competition of LAND & FORST magazine.

"Nope" was the first incredulous reaction of Bernd Sandker when Maren Diersing-Espenhorst, editor-in-chief of LAND & FORST, gave the farmer the good news. For the main prize in the aerial photo competition 2020 of LAND & FORST magazine, the farmer had to recognize various places in Lower Saxony on aerial photos and send in the matching solution set.

It took quite a while before he could really grasp his good fortune, because the win came at the best time. An older tractor was about to be replaced, so the joy over the new Fendt 314 Vario was enormous. Bernd Sandker runs the pig fattening and arable farm together with his father Bernard Sandker. They keep 100 sows and 600 fattening pigs in a closed system. In addition, they cultivate about 70 hectares of arable land and also work on a contract basis for neighbouring farms. On their own land they mainly grow barley, wheat, rye and maize.

Already since 1984 the readers of LAND & FORST are allowed to guess once a year which places of Lower Saxony are shown in the aerial photographs. The winner is then drawn by lot from the correct entries for the solution set. The main prize, a Fendt 314 Vario, was again provided by Fendt this year.

# Fendt Classic Club International founded

Good news for Fendt fans: On the initiative of the AGCO/Fendt management, the new Fendt Classic Club International will in future take care of a comprehensive presentation of the more than 90 years of Fendt history.

The founding meeting of the Fendt Classic Club International took place in Marktoberdorf at the end of October. In his address, Fendt boss Christoph Gröblinghoff stated that Fendt's history offered identification for end customers, sales partners, all employees and for the entire Fendt fan community. Gröblinghoff: "For years we have been noticing a growing interest in historic agricultural technology in general, and especially for Fendt. What's more, many experts in the vintage scene have been noticing a particularly high demand for Fendt vintage vehicles for some time now."

The topics and fields of action of the Fendt Classic Club International include the development and consolidation of an extensive Fendt archive, an exciting presentation of Fendt history based on past highlights, cooperation with the existing regional Fendt Clubs and owners of attractive Fendt collections, the organisation of Fendt Classic events and participation in Classic events in representation of the Fendt brand.

Sepp Nuscheler, former Fendt press spokesman, acts as the first chairman of the Fendt Classic Club International. Former Transmission Plant Manager Karl-Hein Welz and Walter Wagner, Vice President and Head of Tractor Development, take on the posts of Vice Chairmen. Bernhard Bartussek, head of the tax department at AGCO GmbH Marktoberdorf, becomes treasurer. The former Head of Production Development Fendt Tractors, Hans Heinle, takes over the position of Secretary.



For Christoph Gröblinghoff, the Fendt Classic Club International is an ideal platform for the Fendt fan community.

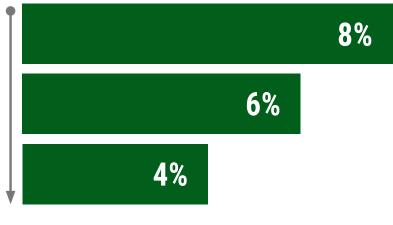


# It pays to be faster

The harvest for this year has been completed, so it is all the more important to prepare for the next season. With the Fendt Early Bird programme, you can get great discounts on new harvesting equipment.

With the success of the last Fendt Early Bird 2021, the popular campaign is going into the second round. This time, the focus of the Early Bird 2022 is on all harvesting-related products - you can save money on combine harvesters, loader wagons, balers or grassland equipment. The earlier you decide on a new Fendt product from the early purchase offer, the more you can save.

# **Early Bird relay**



# **Based on list price**











Round balers

# **#FITFORFUTURE**

The education and training of the green professions must face the same challenges as modern crop protection. The megatrend of digitalization demands new and efficient technologies as well as alternative solutions.



How does one get the idea to compare education and training in the agricultural sector with crop protection technology? Quite simply: both topics are deeply rooted in agriculture. But what is even more decisive is that both education and training as well as the development of agricultural technology are undergoing a digital transformation.

Half a century ago, you had to "roll up your sleeves" if you decided to train as a farmer. Today, it's "hands on" on the way to graduation in one of the 14 green professions. A lot has changed in training. Instead of the "egg-laying jack-of-all-trades", specialists with well-founded detailed knowledge are needed. A lot has also changed in terms of adult education. Whereas in the past people used to exchange experiences with the owner of the neighbouring field across the border, today regular further training measures are

# "In continuing education, knowledge should be presented in an engaging way."

prescribed by law - such as plant protection expertise.

# The future is colourful and digital

In the Plant Protection Act of February 2012, requirements from EU law were implemented. These include the nationwide standardized proof of plant protection expertise, in Germany in credit card format, and the obligation for experts to undergo



regular training within three-year periods at a recognised training course on developments in plant protection. The introduction of the certificate of competence in plant protection was a decade ago. How often have you met with colleagues since then in a pub to take part in a 4-hour training course? Or do you already use the flexible online offer on your PC at home or with the tablet on your tractor?

What makes a training course successful? "One aspect is definitely the presentation of knowledge. People's minds quickly wander if it's a monotonous, monologue lecture without any new insights," explains Ulrich Lossie, head of the agricultural technology department at DEULA Nienburg, based on his own experience. The speaker's instinct is often required: basic knowledge must be enriched with modern elements so that the wow effect occurs.

### Digitalization vs. analog reality

It's a similar story with crop protection sprayers. The technology behind the Fendt Rogator is not new.

Simply from home: E-learning enables further training tailored to your needs - independent of time and place.



Never use valuable operating resources twice: The automatic boom section control is a must for all those who want to work as efficiently as possible.

The digital transformation also began here in the past decade. Back then, electronics were supposed to simplify operation.

ISOBUS is the building block on which further development is based. The ISOBUS functionality ensures a simple connection between tractor and crop protection sprayer. The creation of track lines is almost standard additional benefits must be created to increase efficiency and comfort.

For example, the VarioGuide Contour Assistant expands the familiar VarioGuide contour line types with the additional contour lines "Contour segments" and "Single track". After creating the contour segments, the Vario-Guide system automatically selects the appropriate segment by direction of travel, angle and distance. The track lines can be created automatically based on the field boundary and do not have to be changed manually. With the single track, the entire tramlines can be recorded as one contour line during crop protection. The track is recorded by driving in tramlines and can be used in the next application. The basis for further features based on this, such as the Section Control part-width section control, has been created.

Plant protection products are not only expensive. Acceptance in society is increasingly waning and consumption is being viewed critically. The logical consequence: the application rate must be optimized.

With the Rogator, the Task Controller

takes over automatic switching of the sections depending on the GPS position and the desired degree of overlap. Section Control can thus reduce operating resources by up to 15 percent and at the same time produce higher yields.

### Double holds better

"On this point, the comparison between crop protection technology and further training is somewhat lame," explains Ulrich Lossie. If you want to permanently convey important aspects in training and further education, theory must overlap with practice and sometimes the sustainable change in behaviour even only takes place after multiple repetition, in line with the motto "twice is better".



In combination with Fendt OptiNozzle, the sprayer and tractor work together efficiently. The crop protection sprayer calculates the optimum speed to match the nozzle parameters, the desired drift reduction and application rate.

DEULA Nienburg is a driver of new learning cultures. For several years now, the company has been working on taking part in a new form of knowledge transfer. Even though a large number of farmers like to attend classroom-based events, the demand for digital offerings is steadily increasing in all age groups. Young farmers in particular are now among the "digital natives" and recognise the benefits of digital learning at an early stage.

In order to sustainably install the necessary lifelong learning, it must therefore be ensured that it can be integrated into the often stressful everyday working life. Knowledge must be imparted when it is needed: Bit by bit and on demand, ideally when it can be put into practice directly afterwards.

### Let's learn digital

DEULA Nienburg is also relying on this its new e-learning offer for further training in plant protection. This is an additional way of imparting knowledge that the company has discovered for itself. "Knowledge must be imparted when it is needed: Slice by slice and on demand."

Ulrich Lossie and his team have spent many hours digitizing practical situations. In e-learning, a mix of different formats is used for knowledge transfer, which is the only way to keep training exciting, lively and practical at the same time. For the online user, this creates the feeling of being there live when, for example, section control is calibrated or wetting optimization increases application success with the help of water-sensitive paper. "Particularly in the case of more extensive and methodologically more complex digital training courses, practical relevance is a particularly important factor," explain the Deula trainers.

Therefore, for the video recordings, both used and the most modern plant protection equipment, such as the Fendt Rogator, for example. Those who live training know exactly how to convey important content in an exciting way. Video sequences, info blocks, animations and reflection exercises must run in the right order.

The Fendt Rogator also has the right digital counterpart for this: headland management. On the way to the next tramline, it plays routines in the same sequence over and over again. At the touch of a button, a series of functions are called up in the correct sequence: Switching on/off the application process, OptiSonic boom guidance, boom flushing, rear axle steering, changing the cruise control, as well as VarioGuide track guidance.

The measure becomes effective when the pace can be individually controlled afterwards. This applies both to training and the practical use of crop protection technology. For this purpose, the cross-product and cross-manufacturer ISOBUS solution TIM (Tractor Implement Management) has become established in the agricultural machinery industry.

Here it is the interaction of tractor and implement that counts. In combination with an enabled TIM-capable tractor, the sprayer controls the forward speed. The speed is then regulated in such a way that the pressure for a specific nozzle combination is at the optimum at all times.

When TIM control is active, the driver has the option of adjusting the speed on the basis of predefined speed levels. If the speed level and thus the nozzle combination is changed, the speed automatically adjusts to the target value.

### Prepare information in portions

The VariableRateControl (VRC) option also has the target in mind. In the prescription map, it is determined before the start of the crop protection measure at which point which quantity is to be applied.

The required quantity of spray liquid can be precisely calculated and mixed, residual quantities are reduced to a minimum. For practical use, the application maps are forwarded to the tractor terminal via USB, Bluetooth or mobile radio. It is again the ISOBUS interface that ensures that the exact application rate is transmitted to the Rogator 300.

Finally, the only question that remains is: How can the plans be effectively implemented in reality? If you look for the answer on the Fendt Rogator, the answer is quickly found with OptiNozzle. Successful application of crop protection agents depends on getting the agent to the point of action, the plant. To do this, the nozzle or nozzle combination that matches the driving speed must be used. If the driver increases the speed, the pressure in the system changes automatically. To ensure that the drift does not change when the speed changes, the nozzles are combined accordingly. With the help of this system,

high travel speeds can be realized by using the nozzles - without losing the overview.

# On a new level

The procedure at DEULA Nienburg is quite similar. In both initial and further training, there are various offers that can be used. In addition to the inter-company training, which is firmly part of the training plan wich is integrated, the company offers the right instrument in plant protection, from the certificate of expertise in plant protection to practical training in plant protection and online training.

The digital transformation may be both a curse and a blessing. But one thing is clear: it will help to shape both education and training as well as the development of crop protection technology in the future and take it to a new level.





At DEULA Nienburg, Ulrich Lossie (right) and Hans-Werner Heidemann test and use modern plant protection equipment to create digital learning opportunities.

Headland management can be used to determine which connection track is approached next. The inside of the field can be worked with either the U-turn mode or the bed mode.

# MILESTONE FOR THE SELF-PRO-PELLED CAR

Although the Fendt Rogator did not celebrate a birthday, a special moment was nevertheless upon us for the selfpropelled sprayer: The thousandth unit was built at the production site in Hohenmölsen. We accompanied its journey to the new owner in Sweden.

# 1. ON THE MOVING BELT

Piece by piece, bolt by bolt, the thousandth Fendt Rogator 600 is manufactured in Hohenmölsen, Saxony-Anhalt. The vehicle assembly is divided into pre-assembly and main assembly according to the herringbone principle. In the pre-assembly, for example, the engine and tank are prepared in order to find their place on the chassis of the sprayer in the main assembly station. The innovative crop protection self-propelled sprayer comes off the assembly line after just under 200 hours of production time, 8000 parts are assembled. The highest precision is required. During this time, 45 employees work on the completion of the field sprayer. Even the characteristic model sticker is applied to the machine manually. In the so-called "end of line test", the now fully functional field sprayer is calibrated and the boom is completely unfolded for the first time.





Many production steps are necessary to complete the thousandth example of the Fendt Rogator in Hohenmölsen.



Quality inspection: Before the Fendt Rogator is delivered, it has to undergo a number of tests.

VARA

HOHENMÖLSEN



The machine functions are thoroughly tested under real operating conditions in order to meet the highest quality standards.

# 2. THE LAST CHECK

The Fendt Rogator 655 is designed to optimally meet the high demands placed on a field sprayer. Before it sets off on its long journey to Sweden, it is put through its paces at the factory in Hohenmölsen. In the 4h4Q (Four-Hours-for-Quality) check followed by a three-hour quality audit, each machine is driven on the test site for seven hours and all machine functions are tested under real operating conditions. Among other things, the boom height control, single nozzle control or the running gear are tested for their functional efficiency. Subsequently, every corner of the machine is examined in the quality audit in order to achieve the Fendt quality expected by the customer. →



More than 1000 kilometres lie ahead of the Fendt Rogator: it is transported from Hohenmölsen to its place of operation in Sweden.

# **3. ON A GREAT JOURNEY**

As soon as the marathon of quality tests has been completed, the Fendt Rogator 655 starts its journey to Sweden. To do this, it first has to be loaded onto an articulated lorry. From Hohenmölsen, the Fendt Rogator is driven around 400 kilometres to the port in Rostock. Here it will board a special ferry that is designed to transport trucks. In advance, the transport of the Fendt Rogator had to be registered with the ferry by the freight forwarder. The dimensions and weight of the load were of particular interest. To cover the entire distance from Hohenmölsen to the customer's plant in Sweden, the driver of the articulated truck needs two full days. In the process, he repeatedly schedules breaks in order to comply with his statutory driving and rest times.

# 4. LONGING AWAITS

Having barely arrived in Sweden, the future owners of the Fendt Rogator 655 receive a detailed introduction to the machine's refinements from their local Fendt Competence Centre in Vara, some 95 kilometres north-east of Gothenburg. They have chosen the Fendt Rogator 655 for their arable farm with 1,200 hectares of farmland.



Getting to know each other: The new owners of the Fendt Rogator 655 receive a detailed introduction at their dealer in Sweden.

"Its 35° steering angle alone makes it a nimble and compact machine."



Full use in the field: The Fendt Rogator 655 convinces its new owners during its maiden voyage.

# 5. OFF TO THE FIELD

VARA

HOHENMÖLSEN

In the field, the Fendt Rogator 655 convinces its new owners with several conveniences. The steering angle of 35° alone makes the Fendt Rogator 655 a manoeuvrable and compact partner in various crops. Even while driving, the track width can be adjusted to different crops using the OptiTrack hydraulic track adjustment axle. The adjustable width ranges from 1.80 to 2.25 metres. Thanks to OptiNozzle, different nozzles can be combined fully automatically, thus considerably minimising drift. This makes the first test drive in Sweden child's play. The port of Montrose in Scotland is an important transhipment point for goods of all kinds - and the new home of a Fendt Cargo T 955. The company Rix Shipping Scotland Ltd secured one of the first models of the new telescopic handler.

# EXCELLENT VISIBILITY AT ALL TIMES

"We are a sixth generation family business specialising in the handling of agricultural produce such as grain, feed and fertiliser," says managing director Mark Cessford, explaining the remit of Rix Shipping Scotland Ltd. The company's team handles around 350,000 tonnes of produce arriving in Montrose each year.

In the process, each load is handled twice. "Once to get it off the ship or up onto the ship, and another time to load it off a truck. That means we move 700,000 tonnes a year," says Mark Cessford.

To secure one of the first models of the Fendt Cargo T955, the managing director worked closely with Ross Agri - a Fendt dealer that supplies machines to Scotland.

Montrose

# Aim high

The lift cab of the Fendt Cargo T955 can be raised to a viewing height of 4.25 metres. There is no dashboard, so the lower part of the windscreen is not covered by anything. This gives the driver a clear view from the ground to the ceiling and a better view of the implement.

"This machine is unique. The elevating cab gives the operator an unparalleled view of the loader and the material being processed. We consider the safety of our employees to be the most important benefit of this →





Mark Cessford relies on the advantages of the Fendt Cargo T955.

technology. The driver has a far better view as he can get to the same height as the product being transported," explains Mark Cessford.

The Fendt Cargo T955 combines the advantages of a conventional telehandler with those of a wheel loader. The lift height, reach, low body height and excellent manoeuvrability make it a competitive telescopic loader. And this is coupled with stability and performance equivalent to a wheel loader in the same weight class.

"Modern farming has become bigger, and the pace of the work has continued to increase as weather windows have become shorter. The telehandler offers excellent working speed and efficiency. Fendt is the first to introduce this technology to agriculture and I can see it appealing to a wide range of users as it makes material handling both more efficient and safer," he said of his machine. The Fendt Cargo T955 has a lift height of 8.5 metres and a load capacity of 5,500 kilograms. It was built in collaboration with Sennebogen Maschinenfabrik GmbH, which is known for building large industrial machines, including harbour cranes and material handling machines.

The company has more than 15 years of experience with telescopic handlers for industrial use, which is reflected in the build quality of the Fendt Cargo T955.

# More comfort for the driver

Mark Cessford is convinced: "In the past, operators of telescopic machines have had to put up with limited visibility. This is the first time that this problem has been solved. Our operators have a clear view when emptying ships, loading warehouses or trucks. It's the perfect tool for our work on the docks."

In addition to the technical refinements of the Fendt Cargo T995, Mark Cessford highlights the operational benefits. "The responsibility of handling product on a daily basis can be overwhelming, especially when drivers are under stress and have to work quickly. We place a high priority on driver wellness and work with our team to ensure the job is doable with the equipment and time we have," he

"The Fendt Cargo T955 offers us efficiency that saves space, time and money!" says. This focus on the mental and physical well-being of the drivers was an important part of the decision to invest in the Fendt Cargo T955. "We could have spent less and still had a powerful telehandler. The Fendt Cargo T955, however, gives our drivers more confidence because it eliminates the blind spot problem. It makes the job easier and the driver feels fresher and less stressed after the shift," he explains.

Cessford considers himself fortunate to have qualified and dedicated drivers and a foundation of trust on which to work with them. However, he is aware that finding gualified workers in agriculture is difficult and that contractors often work in unfamiliar environments. "Contractors don't always enjoy the luxury of being familiar with the outside conditions from the get-go. This is where I see the greatest benefit of the Fendt Cargo T955. When working in unfamiliar environments, the cab gives the operator better visibility. For him, this reduces the likelihood of being surprised by objects outside his field of vision," he bike

Gus Whyte, Rix driver, adds: "At first I thought the cab was a gimmick, but it only took me a few minutes to realise what a difference it makes. It eliminates blind spots, which makes the job easier and safer. At the end of the day, I feel fitter both mentally and physically."

# All concerns removed

His experience with the operation and handling of the machine was better than he expected. "The hydraulics are some of the best I have ever used. The operation is smooth and very sensitive, but still easy to control. The Fendt Cargo T955 may look a bit clunky, especially with the cab up, but it turns like a 50 cent piece and manoeuvres very well," he comments. Gus Whyte has the job of unloading a lot of materials from the ships that dock at Montrose.

Thanks to the hydraulically liftable cab, operators can fill the trailers more accurately and maximize storage space by stacking products higher. Materials such as pulp are packed with wires that allow the forks to lift them. "The mental stress is high when unloading difficult materials like pulp. The margin for error is low. In the past, it was difficult to even see the wires. It made the job very difficult," he said. "At first I thought the booth was a gimmick, but it only took me a few minutes to realize what a difference it makes."

In the past, he used cameras to improve visibility. However, he admits that this method is significantly inferior to the enhanced view in the



Fendt Cargo T955.

The fact that the Fendt Cargo T955 looks a bit cumbersome when the cab is fully extended is not reflected in its driving performance. With the cab fully extended, the telehandler can travel 40 kilometres per hour. Although it is unlikely that a driver would need such a speed, it is a testament to the robust and balanced nature of the machine.

The company's managing director Mark Cessford has no regrets about the investment: "We've been stacking our products four times as high for years. We have the ceiling height to stack them five or six high, but a conventional telescopic handler doesn't provide the visibility to do it accurately." He is certain that the Fendt Cargo T955 has helped maximise the storage capacity of our buildings. We even stack bale goods six high now, for example. "That's an operational efficiency that saves space, time and money," says Mark Cessford with conviction.

The Cargo T955 is the ideal partner for the work that needs to be done in the port. The driver has a  $360^{\circ}$  view from the cab.

The cab of the Fendt Cargo T955 can be raised to a viewing height of 4.25 metres.



# EVERYTHING IN THE GREEN

Contractor and farmer Georg Wilhelm Völger and Fendt have one thing in common: they are experiencing stable growth and are on their way to becoming a full-liner. A strategy that shapes both companies in their actions.



Who doesn't know the skyline of Frankfurt? More than a hundred buildings in the city exceed a height of 22 meters and can thus officially call themselves high-rise buildings. However, the 32 buildings that are taller than 100 meters are the ones that really shape the skyline. Almost half of them are real skyscrapers with a height of at least 150 meters."Mainhattan" wants to bring the international flair of the American model Manhattan to the middle of Germany. The Main Tower with its viewing platform at a height of 200 metres is one of the most interesting sights. From here, the city of Frankfurt lies at your feet and you have a breathtaking view.

Skyline and a good view: What is unique for tourists in the financial metropolis is part of everyday work for farmer and contractor Georg Wilhelm Völger. He sits relaxed in the skyline cab of his Fendt 6335 C and makes his rounds, just under 30 kilometres from the Main Tower, in the tranquil town of Arheilgen just outside Darmstadt. Völger's perfect view of the cutterbar, the stubble and the unloading pipe corresponds to the tourists' perspective from the viewing platforms down to the tranquil street cafés. If he uses the large, electrically adjustable mirrors or the standard camera function in the 10.4" vario terminal, with a little imagination he can almost see as far as the Main metropolis.

# Threshing is a matter for the boss

It is mid-July and Georg Wilhelm Völger has a wheat field in front of him, which he is harvesting lane by lane. It

Georg Wilhelm Völger's company is located in the tranquil town of Arheilgen, just outside Darmstadt.



is his fifty-eighth threshing season, his second with a Fendt combine. Even as a child, he could be found on his grandfather's thresher during the summer months.

Over the decades, both the quality of the technology and the working comfort for the driver have constantly developed. The 69-year-old therefore knows exactly what is important to him when harvesting. And so he made a conscious decision to invest in Fendt's harvesting technology division. "As far as the view, comfort and atmosphere are concerned, I wouldn't want to swap places with any tourist," explains the passionate arable farmer, looking at his new purchase from last year. Combine harvesting is and remains a matter for the boss on the arable farm.

# It's so green

Already the next team comes in "nature green" onto the stubble field. The Fendt Vario 516 with the Rotana 180 V variable round baler in tow drives purposefully to the first swath, lowers the pick-up and begins to press the straw into round bales. Selling straw to horse farms is another source of income for the family business. Völger therefore makes no compromises when it comes to straw quality. The straw must be tightly baled and delivered dry to the customer's farm. "The weather has been a challenge for us this year," says the farm manager. "I am glad that our new acquisition found its way from the Allgäu to the Main just in time." This refers to the



The Fendt Cargo 955T is used in many different ways on the farm.

new telescopic loader, the Fendt Cargo 955T. And with this implement, too, the view plays a decisive role: no more poor visibility. The unique, elevating and suspended cab, with its continuous windscreen, offers a unique overview during every loading operation.

"I am glad that the Fendt Cargo T955 has found its way from the Allgäu to the Main."

The Fendt Cargo T955 starts where other telehandlers stop. It offers more overview, more power, more safety and more comfort. The Fendt Cargo T955 combines the best of a telescopic handler and a wheel loader and is perfectly adapted to the requirements of agriculture with many clever details. And it was precisely these points that were important to the entrepreneur when making the purchase. Völger has been working with telescopic handlers for 12 years six machines can be found on the company premises. Three telescopic loaders and three excavators with telescopic arms are part of the machine park. So much technology for a farm with 220 hectares?





Quality is crucial: Fendt tractors offer what Georg Wilhelm Völger was looking for.

Georg Wilhelm Völger relies fully on Fendt in his business.

### Leap into the future

A lot has changed on Georg Wilhelm Völger's farm in the last 25 years. He has consistently developed his business. Just like Fendt. Both companies have evolved from specialists to fullliners. From tractors to threshers to forage harvesting. Paths that are not unknown to either company. Critics claim that the strategy of the agricultural engineering companies has some pitfalls in store for practical use, but Völger makes the advantages clear: "You already know the logic of operation from the tractors and can therefore quickly get to grips with the combine harvester, for example. The biggest advantage, however, is the data management and handling, because this is now all of a piece.

The argument that many farmers do not buy according to colour, but according to function and quality, does not count for Völger either. Because he is thoroughly convinced of Fendt's product range: only a satisfied customer is a customer, otherwise he goes to the competitor. For him, the quality of the manufacturer is decisive.

"Every piece of equipment is only as good as its dealer or dealer network. In our case, it is RWZ Riedstadt-Wolfskehlen, with whom we have been working successfully for years. Agriculture is a seasonal business and the technology has to work when it is needed. I have to be able to rely on the reliability of man and machine - even if I and my son, as trained automotive mechatronics engineers, can do a lot of work ourselves in the workshop."

Georg Wilhelm Völger's heart beats for agriculture. A passion that has

been passed down in the family for generations. In order to be able to live this passion, the farmer had to embark on new paths. For a long time, the farm was located in the heart of Arheilgen, a suburb of Darmstadt. But there the air to breathe was taken away from him. The old farm was small and not designed for the modern, ever-increasing technology. So the Völgers were forced to take a new path. However, the arable farm with special crops was not only to go out into the countryside outside the city limits. No, Georg Wilhelm Völger and his wife Irmtraut wanted to restructure the business and make

"Any device is only as good as the dealer or dealer network." it fit for the future, so that the two sons were offered a perspective for a possible start.

As a family business, the Völgers worked together on a strategy to make the company fit for the future. They set out on this path at the end of the 1970s - with the purchase of the first brand-new Fendt tractor. Since then, a further 20 tractors have made their way to the Main metropolis, almost half of which are on the farm today. "We have all the series on the farm, with the exception of the 300 series," explains the entrepreneur proudly.

For many years, the farm, which today covers 220 hectares, was managed with grassland and arable farming in a regionally typical way. This also included the cultivation of asparagus. The area between Darmstadt and Frankfurt is by far the largest cultivation area for this noble vegetable in Hesse. But the special crop takes its toll. In spring, everything revolved around the asparagus. The workload in the first half of the year was enormous. Only at the end of the harvest season was it possible to concentrate on the other arable crops. Things were not to continue like this. The family council's idea: full-liner instead of specialist, and for that full time, spread over the whole year. A strategy that coincides with that of Fendt.

### Focus on services

The new start at the Arheilgen site was the beginning of restructuring: services instead of special crops. With the cultivation of 70 hectares of grassland and 150 hectares of arable land, the farm manager was not working to capacity. The cultivation of cereals, maize and sugar beet and the marketing of the grassland products were not enough for Völger. The same applies to agricultural technology, because the farmer relies on self-mechanisation. Thus, there has always been sufficient technology available on the farm. "Utilisation is not the top priority, it is much more important that the technology is available when there is work to be done," explains Völger. However, the entrepreneur does not want to completely neglect profitability; after all, he also has to act sustainably. He has the financial metropolis of Frankfurt breathing down his neck as a role model.

The foundation of the agricultural contracting company was the logical first step towards becoming a service provider. At the same time, however, the entrepreneur emphasizes: "Our roots lie in agriculture, which is still an integral part of our daily work routine. From then on, things went from strength to strength. In 1996, the commercial enterprise was founded, initially exclusively as a winter service provider, later the specialist area of gardening and landscaping was added. The love of nature thus created new branches of the business.

Today, the family business is active as a master craftsman's company for private and commercial clients in all aspects of landscape, playground, house and garden. Of course, Völger can no longer manage the workload alone. 56 employees are now employed all year round. The planning of the staff is easy for Wilhelm Völger he gained experience in this regard during his heyday with the special crops. The agricultural business is managed by two employees, all the others are active in the service sector.

The biggest advantage for the entrepreneur is that he can use his existing technology in all areas - primarily, of course, the tractors from 50 to 415 hp. This pays off twice for Völger's bottom line, because the added value also increases. "The calculation is quite simple. 1,000 hours on my farm stacking bales brings me a different return than 1,000 hours of use in landscaping or winter services. The purpose of use determines the profitability here. The target is therefore between 950 and 1,000 operating hours per tractor." And once again Georg Völger has focused on what is really important. Full-Time, Full-Line.



Markus Völger, a trained automotive mechatronics technician, can do a lot himself in the workshop, but he still has to be able to rely on the reliability of the machines.

# "Working for a large agricultural equipment dealer, I collect a lot of Fendt moments."



Love on the first glance

Ann-Christin Kahler runs a channel on the social media platform Instagram as @annii610 with over 45,000 followers - and tractors in Fendt green not infrequently play a decisive role.

these criteria. Meanwhile i work for a large agricultural machinery dealer and demonstrate the latest machines and associated technology to farmers. I experience unforgettable Fendt moments every day. Absolute highlights include the latest generation of tractors, equipped with FendtO-NE. A high level of user-friendliness and simplicity simply wipe away farmers' initial reservations about digital technology. All machines from Fendt show themselves with their high quality and reliability - so selling is very easy for me.

The fact that Fendt machines not only play an important role in my everyday working life, but can also be seen on my Instagram channel, is the logical consequence for me. The spark that jumped out at me back then, I now pass on on the net. The channel thrives on aesthetic images. The Fendt machines look good in the pictures - it just looks cool when I steer a tractor or Fendt IDEAL across the field.

My family runs a part-time farm on which I actively helped out in my youth. The brand of the tractor was of secondary importance. When I started my apprenticeship as a farmer after graduating from high school, the Fendt spark jumped out at me and has not let go of me even today.

Almost all the tractors on my training farms were Fendt tractors. In the contracting company where I first helped out and was then permanently employed, the picture was the same. I quickly realised that, as a farmer, you need precise and reliable technology to achieve excellent work results - machines from Fendt meet



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