

SEED DRILLS

BEDNAR

EFACTA CE

A wide seed drill for maximum daily outputs



JOY
OF FARMING



Why EFECTA CE?



“Many farmers have to deal with timely crop establishment and how to manage that when the weather is not good? Soil must be prepared in a quality way so that the seed drill can establish the crop in the best possible conditions. Powerful tractors prepare the soil and you need to have the same performance for the seed drill even when using a smaller tractor. These are the main reasons why we developed the wide-span seed drill with light soil cultivation for tractors in the medium class.”

Jan Bednář

EFECTA CE is a wide-span, high-output seed drill with a soil cultivation option (CRUSHBAR leveller, PROFIL coulters, TURBO coulters for seeding into uncultivated soil, FERTI coulters for supplementary fertilisation), designed for fast crop establishment. The EFECTA CE seed drill can reach a working speed of up to 20 km/h at a working width of 12 m, and yet it has low tractor power demands. The machine achieves extremely high outputs of up to 200 seeded hectares per day.

Thanks to the PSP system (Precise Seed Placement), disc drill coulters place seeds at an identical seeding depth along the entire width of the machine and they perfectly trace any field unevenness, both lengthwise and crosswise. Moreover, the individual sections of the seeding bar can be mounted on a parallelogram. That makes the seed placement system excellent.

The machine technical parameters follow EU requirements for machine operation.



Why Efecta CE?

MAIN ADVANTAGES OF THE MACHINE

- A seed drill with soil cultivation thanks to the hydraulically controlled Crushbar and PROFI coulters.
- Seeding in difficult conditions with the use of TURBO coulters for crop establishment in hardened and uncultivated soil.
- Supplementary fertilisation in inter-rows with FERTI coulters.
- Parallelogram placement of the individual seeding bar sections—seeding bar sections can be mounted on a parallelogram. Perfect contouring.
- Disc drill coulters also mounted on a parallelogram (PSP system).
- Pressurised hoppers with 4 seeding mechanisms. Quality and precise seed and fertiliser batching.
- Four dividing heads provide sectional control for each 3 metre section in the 12-metre-wide Efecta CE 12000.
- Simple seeding amount control and calibration.
- ISOBUS connectivity.

AGRONOMIC ADVANTAGES OF THE MACHINE

- Greater spacing between individual plants thanks to the inter-row spacing of 12.5 cm (or 16.7 cm).
- Precise seed placement thanks to drill coulters mounted on a parallelogram (PSP system) with a high down pressure and the seeding bar section also mounted on a parallelogram. It ensures even seed emergence on the entire area of the seeded plot.
- Crop establishment in minimal technology, conventional technology, or direct seeding into a stubble field.
- Seeding different plants.
- Adherence to agronomic deadlines thanks to the high travel speed and large-capacity hoppers.
- Plant nutrition at the beginning of vegetation as a result of supplementary fertilisation.



DEMONSTRATION OF WINTER WHEAT ESTABLISHMENT

Seed drill Efecta CE 12000

Location: Městec Králové, Czech Republic

Operating speed: 14 km/h

Seeding depth: 3 cm

Seeding amount: 180 kg/ha



EFACTA CE

Why EFACTA CE?

ADVANTAGES THAT BRING SAVINGS

- **Quality and efficient crop establishment** thanks to the seedbed cultivation with the hydraulic Crushbar leveller or coulters that prepare the field for quality work of the seed drills with seed placement at a precisely set depth.
- **High working speed:** for keeping the agronomic crop establishment deadlines. High working speed (10–20 km/h) is possible thanks to the perfect machine stability and premium fertiliser dosing.
- **The working width of 12 m** guarantees high daily outputs in crop establishment in short intervals.
- **Possibility to work in difficult conditions:** the technical design of the EFACTA CE seed drill allows for work in extreme conditions caused by high moisture level or drought (with the TURBO coulters optional equipment).

USE EFACTA CE FOR:

- **Crop establishment in minimum tillage** with crop residue on the surface. PROFI coulters or TURBO coulters prepare the soil for the drill coulters.
- **Crop establishment in conventional technology (tillage).** Seeding can be done directly into the prepared coarse furrow thanks to the front hydraulic Crushbar leveller that levels the soil before the drill coulters.
- **Crop establishment with seeding directly into the stubble field** thanks to TURBO coulters that work in the same line as drill coulters.
- **Trouble-free crop establishment** in heavier and wetter soils thanks to the front PROFI coulters or TURBO coulters. No more clods that are usually formed by disc sections in heavy and wet soils.

Important Working Parts



HYDRAULICALLY CONTROLLED CRUSHBAR LEVELLER

CRUSHBAR is a hydraulically controlled robust leveller formed by springs with blades at the end to level soil.

CRUSHBAR levels soil before the double-disc disc drill coulters so that seeds can be placed at the required depth.



PROFI COULTERS

PROFI coulters are specially shaped corrugated discs with a diameter of 400 mm, designed for fine seedbed cultivation before seeds are placed in the soil. PROFI coulters open up soil without turning it and keep moisture essential for seed germination in the soil.

PROFI coulters do not create clods, which often happens in wet soils when traditional seed drills with disc sections are used for heavy soil cultivation.

PROFI coulters can be easily disassembled and switched for TURBO coulters.



TURBO COULTERS

TURBO coulters are flat discs with sharp cutting edges with a diameter of 400 mm. TURBO coulters create a clean furrow for seed placement. TURBO coulters clean the furrow, and they can work directly in a stubble field or uncultivated soil.

TURBO coulters work in the same line as drill coulters that place the seeds.

TURBO coulters can be easily disassembled and switched for PROFI coulters.



FERTI COULTERS

FERTI coulters are double-disc coulters designed for precise seed placement into inter-rows. Fertiliser is dispensed from Pressurised hoppers by application coulters (diameter 380 mm). The seed placement depth is adjustable. The coulters are designed with a spacing of 25 cm (12.5 cm inter-row spacing of seeds) and 33 cm (16.7 cm inter-row spacing of seeds) for a high throughput.



TRACTOR TRACK CULTIVATORS – COULTERS

The EFECTA CE seed drill can be equipped with PROFI coulters tractor track cultivators. The coulters track cultivators do not create any clods and they work without any problems even in high quantities of crop residue.

Cultivators are controlled hydraulically from the tractor cabin.

Cultivators can also be ordered for tractors equipped with dual wheels.

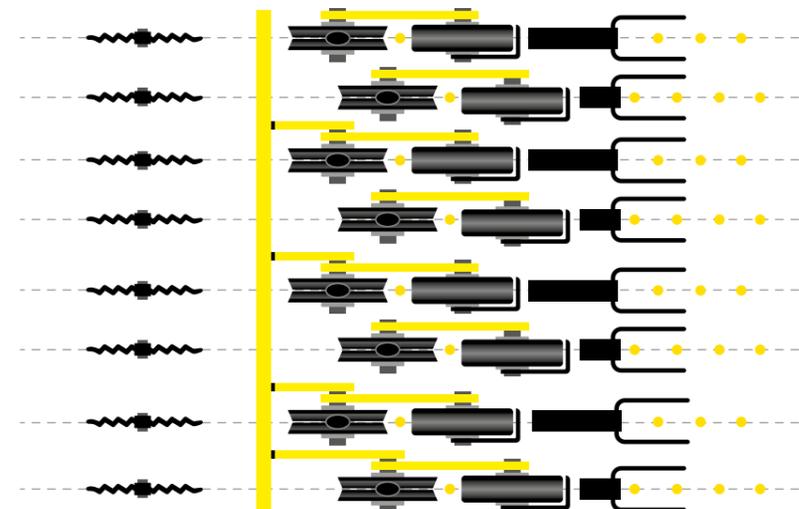


TRANSPORT AXLE TRACK CULTIVATORS – SWEEPS

The EFECTA CE seed drill can be equipped with chisel track cultivators for the transport axle, or with crawler undercarriage.

The working depth of the track cultivators is set mechanically.

Track cultivators are available either as fixed, or telescopic.



The independently mounted TURBO coulters work in the same line as the rear drill coulters.

Important Working Parts



FLOATING TYRES 650/65-30,5 OR 850/50-30.5

The basic equipment of the EFECTA CE seed drill includes floating tyres with a dimension of 650/65-30.5. The tyre tread and size were selected with respect to the lowest possible pressure on soil while meeting the requirements of the European Union. The transport width of the seed drill with 650/65-30.5 tyres is 3 m.



FRONT DOUBLE SUPPORT WHEELS

The front double support wheels with a dimension of 10.0/75-15.3 guide the machine through the terrain. The double wide front wheels make it possible to use the machine in light soil or in well-cultivated soil.

If the machine is equipped with coulters, they can be easily adjusted to work deeper than the other coulters. This way, any potential tracks behind the support wheels are simply eliminated.



EFECTA CE

BEDNAR FLOATRAX SYSTEM

BEDNAR, as one of the leading manufacturers in the world, has implemented a crawler undercarriage in a seed drill. The FLOATRAX system was designed specifically for the wide-span EFECTA CE seed drills. The FLOTRAX system is equipped with brakes. It means that the seed drill can be driven on roads in the EU.

The main advantage of the FLOATRAX crawler undercarriage:

LOW PRESSURE ON SOIL = LESS HARDENING = HIGHER YIELD POTENTIAL



As the pressure on soil does not exceed 0.70 Bar, during which negative and irreversible soil hardening occurs, the FLOATRAX caterpillar undercarriage is delicate to soil.

Important Working Parts



PRESSURISED HOPPERS

After meticulously testing pressurised and non-pressurised hoppers, BEDNAR decided to only offer pressurised hoppers to farmers. WHY?

Main advantages of pressurised systems (hoppers):

1. Air pressure in the pipeline below the seeding mechanism does not need to be reduced to atmospheric pressure level—in non-pressurised systems, it is done using a diffuser, or pipeline narrowing that reduces air flow and decreases the maximum seed (fertiliser) quantity that can be “blown” through. **It is thus possible to dispense larger quantities with a higher precision!**
2. It does not require resolving the changes in the dispensing air system layout—e.g., by closing half of the outlets when seeding every other row (winter rapeseed) etc. — **the low-pressure system (unpressurised hopper) is extremely sensitive and seeding every other row may cause incorrect batching (pressure under the seeding mechanism changes).**



FOUR SEEDING MECHANISM

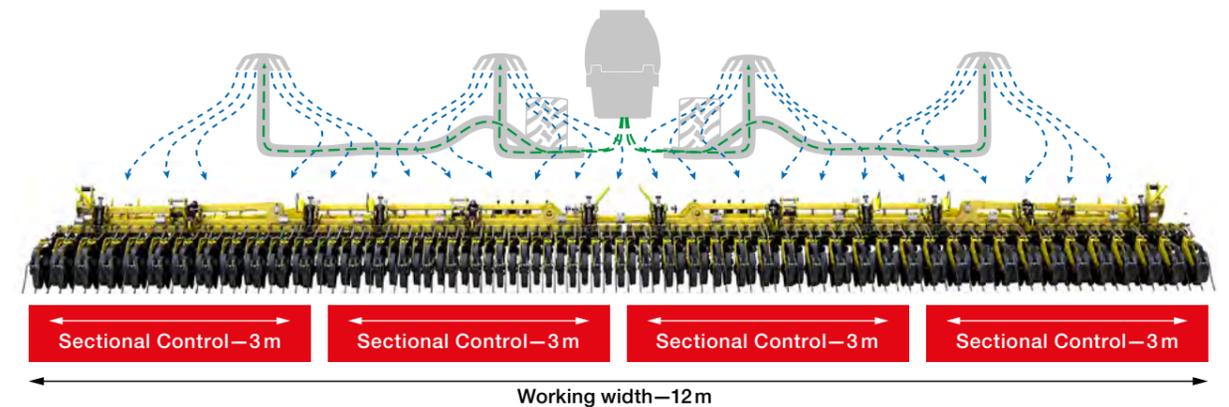
The EFECTA CE seed drills are equipped with 4 seeding mechanisms. Two seeding mechanisms per hopper. Batching provides maximum precision and allows for higher batches thanks to the higher number of seeding mechanisms.



SECTIONAL CONTROL FOR EVERY 3 m — 4 DISTRIBUTION HEADS

The EFECTA seed drills are equipped with 4 distribution heads. One dividing head for every 3 metres of the working width.

The sections (every 3 metres) can also be deactivated automatically with GPS (ISOBUS SECTION CONTROL).



Machine Control and Settings

SIMPLE CONTROL INCLUDING ISOBUS

The EFECTA CE seed drill can be controlled via the IsoBus system. If the tractor is not equipped with an IsoBus system, the machine can be controlled using the following terminals:



ME TOUCH 800 Terminal

- A terminal with state-of-the-art touch technology.
- The terminal is equipped with a dual 8" TFT touch display.
- The touch film is placed behind protective glass, which makes this terminal perfect for the rough agricultural environment.
- This alternative allows displaying the "main screen" and the "header screen" at the same time thanks to the high resolution.
- The TOUCH 800 terminal supports the functions of precise farming, such as SECTION-CONTROL, TRACK-Leader, FieldNAv (easy machine navigation in the field)*.
- To make it easier for the operator, the TOUCH 800 terminal can be extended with a series of accessories, such as cameras etc.*



ME TOUCH 1200 Terminal

- It can be used edgewise or breadthways as required by the customer.
- A terminal with state-of-the-art touch technology, with a 12.1" display.
- Up to five concurrent applications (no other terminal provides this function).
- The touch film is placed behind protective glass, which makes this terminal perfect for everyday use in the rough agricultural environment.
- It is equipped with Tractor-ECU, enabling getting data directly from the tractor.
- The TOUCH 1200 terminal supports the functions of precise farming, such as SECTION-CONTROL, TRACK-Leader, TRACK-Leader AUTO*.
- To make it easier for the operator, the TOUCH 1200 terminal can be extended with a series of accessories, such as cameras etc.*

* Some functions are available for an additional charge and may require additional accessories. If interested, contact your dealer.



EFFICIENT AND PRECISE METERING MECHANISM

The metering mechanism of the EFECTA CE seed drills is made of stainless steel and driven by an electric motor, equipped with a radar sensor or IsoBus system directly from the tractor.

The metering system is able to batch the seeding amount very precisely in a range from 0.6 to 350 kg/ha.

The system is equipped with a discharging slide for perfect emptying of the hopper. This slide is also for easy replacement of the seed roller.

An agitator is part of the metering system for better seed flow and prevents bridging of product.



SEEDING ROLLERS

The basic equipment of the EFECTA CE seed drills includes two types of seeding rollers (one type for fine seeds such as oilseed rape, one type for the cereals).

Machine Control and Settings



SOFTWARE TAILORED TO THE OPERATOR'S NEEDS

The EFFECTA CE seed drill software is programmed by BEDNAR developers. Software is intuitive and simple; it was programmed "in the field"!

BEDNAR software developers work with the seed drills. They know the importance of icon layout; how important it is to have a well-arranged overview of the machine work on the screen and how important prompt and correct problem reporting is. EFFECTA CE has software that almost anybody can handle.

BEDNAR ROLLERS APP WILL HELP YOU SELECT THE RIGHT SEEDING ROLLER!

Download the BEDNAR Rollers App, choose the type of the seed drill or hopper, the type of seeds (wheat, barley, beans, winter rapeseed, etc.), or the type of fertiliser, and the required working speed and seeding amount. The BEDNAR Rollers App will recommend a suitable seeding roller based on the entered parameters, which will guarantee a precise and quality seed and fertiliser batching.

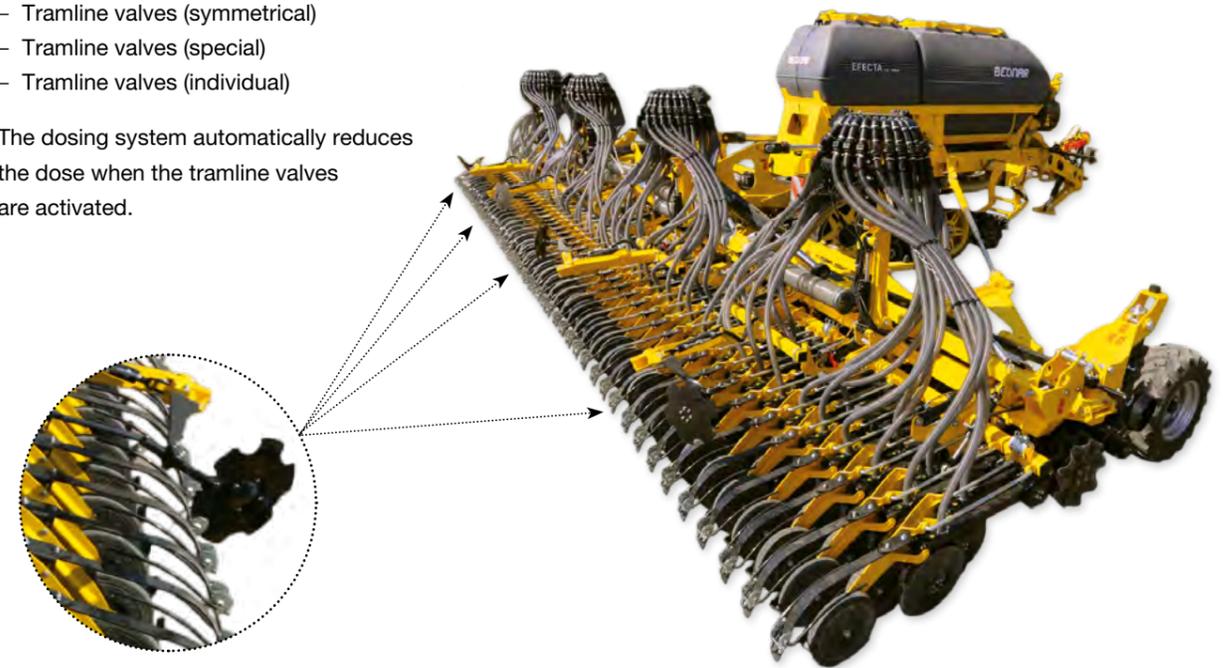


PRE-EMERGENT MARKERS

The EFFECTA machines can have several options for marking rails configured according to the way you use navigation and sprayers:

- Pre-emergence markers (asymmetrical)
- Pre-emergence markers (symmetrical)
- Pre-emergence markers (special)
- Pre-emergence markers (individual)
- Tramline valves (asymmetrical)
- Tramline valves (symmetrical)
- Tramline valves (special)
- Tramline valves (individual)

The dosing system automatically reduces the dose when the tramline valves are activated.



In cases of work without navigation, it is possible to equip the EFFECTA CE seed drill with side, hydraulically-controlled markers.

Smart Functions

The wide-span EFECTA CE seed drill supports a whole range of precise farming functions. EFECTA CE offers several functions that make its operation easier:

SECTIONAL CONTROL

Automatic activation of the individual sections based on a GPS signal. EFECTA CE has four sections, each three meters long.

TASK CONTROLLER

Two-way data transfer from PC to the screen terminal (seeded area, seeded amount and other data).

VARIABLE BATCHING

Variable application of seeds and fertiliser (adjusted seeding amount and batch) based on the prescribed maps according to the machine position.

SIMPLE SEED CALIBRATION METHOD

Supplemented with indication of the individual calibration phases with coloured backlight of the calibration button for the activation of the individual sections based on a GPS signal.

SEED LIBRARY

Allows the saving of parameters of calibrated seeds for further use in data transfer from PC to the screen terminal (seeded area, seeded amount and other data).

ADJUSTABLE MACHINE LOWERING AND LIFTING DELAY

Allows the machine to be set to make sure that the seeds are in the coulter drills at the right time when lowering or lifting the machine into the working or headland position.

FLOW SENSORS

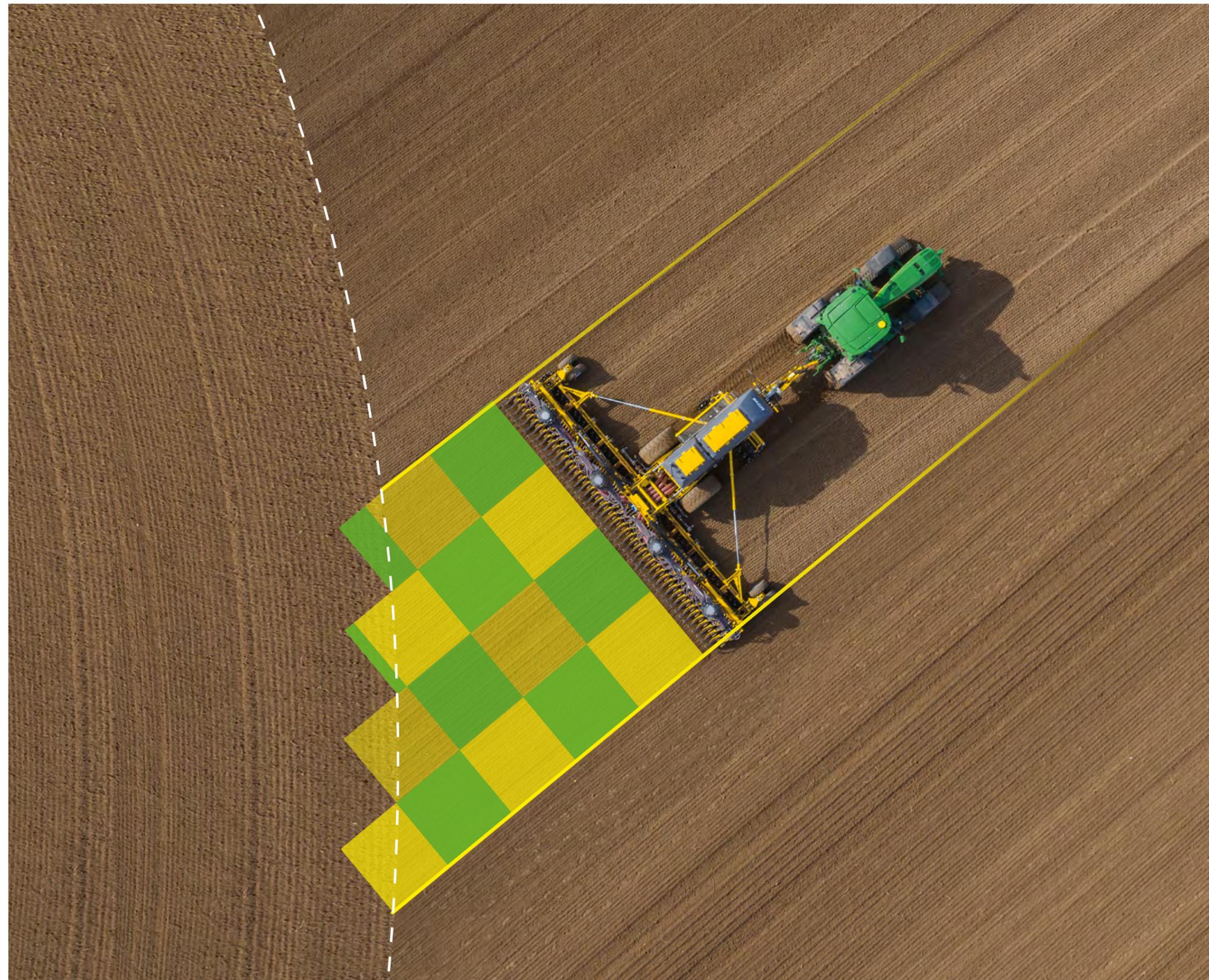
Seed flow sensor support—immediate notification of interruption of the seed delivery into any drill coulter.

ADJUSTABLE PRE-SEEDING

A user-adjustable pre-seeding for correct seeding of field corners etc.

SEEDING AMOUNT SELECTION

The required seeding amount can be entered in kg/ha, or in units per m² (requires entering the seed HTS and germination capacity as well).



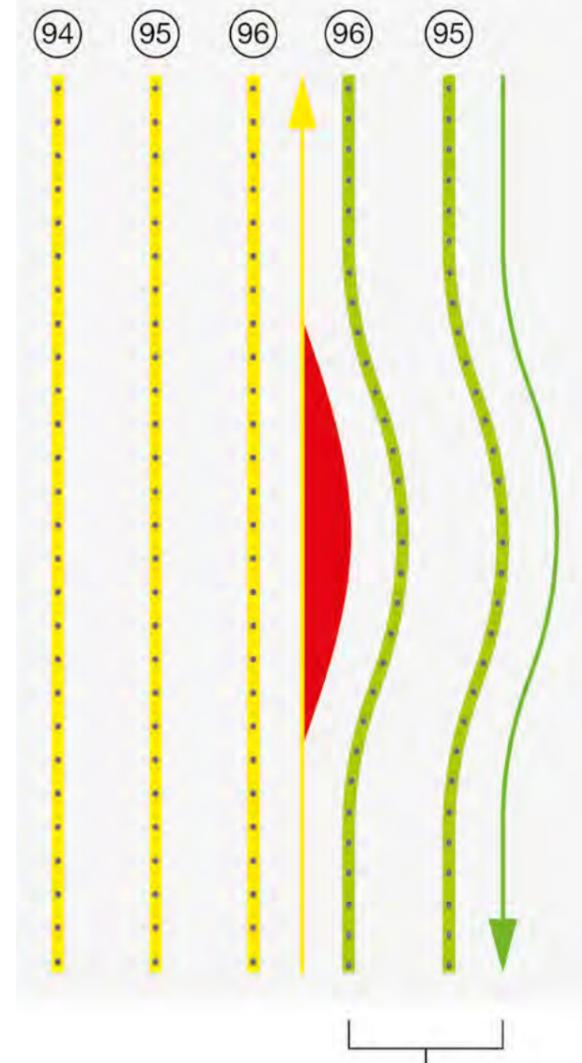
Precise Seed Placement

DOUBLE DRILL COULTERS

The pulled vehicle deviates from the perfect pass to pass track during sowing. That creates increased gaps, or so-called “misses” between the individual passes in the field (with the standard arrangement of the drill coulters). The double edge drill coulters eliminate all those deficiencies. When there is a deviation from the ideal line, the growth is only thinned locally without any significant gaps or eyes.

STANDARD SEEDING METHOD

Drill coulters no. (96 seed coulters – width of the machine 12 m)

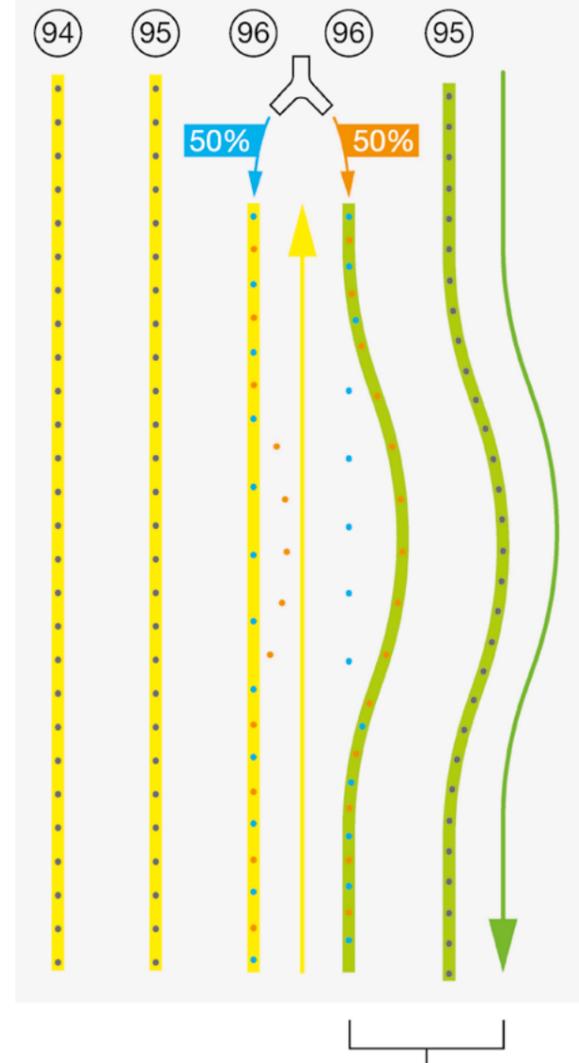


Reverse driving with a deviation from the theoretical line

↑ ↓ Direction of travel

DOUBLE EDGE DRILL COULTERS—THE SEED FLOW IS DIVIDED IN TWO PARTS IN THE EDGE COULTERS

Drill coulters no. (96 seed coulters – width of the machine 12 m)



Reverse driving with a deviation from the theoretical line

● Visible gap increase

EASY AND CONVENIENT SEEDING MECHANISM CALIBRATION

The new calibration system provides an easy, fast and precise calibration for various crops.

The operator chooses the planned seeding amount prior to calibration. Then, the roller can be filled with seeds/fertiliser and the operator can perform seed/fertiliser batching for weighing. When the net batched weight is entered, the software assesses that calibration was executed correctly and the defined revolutions correspond with the working speed.

Calibration can be done individually for each seeding mechanism.

Seeding mechanisms are easily accessible.



„The EFECTA CE 12000 is the 4th BEDNAR machine on the farm together with two SWIFTER SM 14000 compactors and one ATLAS AE 12400 PROFI disc cultivator. The seeder arrived in 2021, early autumn. The start-up was managed with alfalfa planted in the autumn and then different autumn cereals were sown with the seeder. We sowed in seedbeds made with and without soil preparation in the right quality. In order to obtain the ideal seedbed, the PROFI coulters made a very good job at the front of the machine. For both small seeds and cereals, the setted amount of seeds was applied precisely and evenly at the specified working depth. Despite the dimensions of the machine, it is absolutely user-friendly: unfold and folding system, change the seed type and calibrate the seeds amount, daily maintenance.”

Endre Makó, Head of technical department

Nemzeti Ménesbirtok és Tangazdaság Zrt.
10000 ha | Hungary

Precise Seed Placement

TWO OPTIONS FOR MOUNTING PSP DRILL COULTERS ONTO THE SIDE FRAMES

1. Standard mounting of PSP drill coulters on the side frames of the EFECTA seed drill – the drill coulters are mounted directly on the side frames of the seed drill. This simple solution is sufficient for 100% flat fields without large quantities of clods, crop residue and other unevenness.



2. Parallelogram for mounting drill coultor sections, the PSPF system (Precise Seed Placement Frames) – additional frames are suspended from the side frames using a parallelogram. The PSP drill coulters are mounted on the additional frames.

The additional frames have a working width of 3 m, i.e., there are four additional frames installed on the 12-metre-wide EFECTA seed drill.



The PSPF system guarantees perfectly precise/even seed placement depth, even in extremely rugged parts of the field, along the entire working width of the EFECTA seed drill.

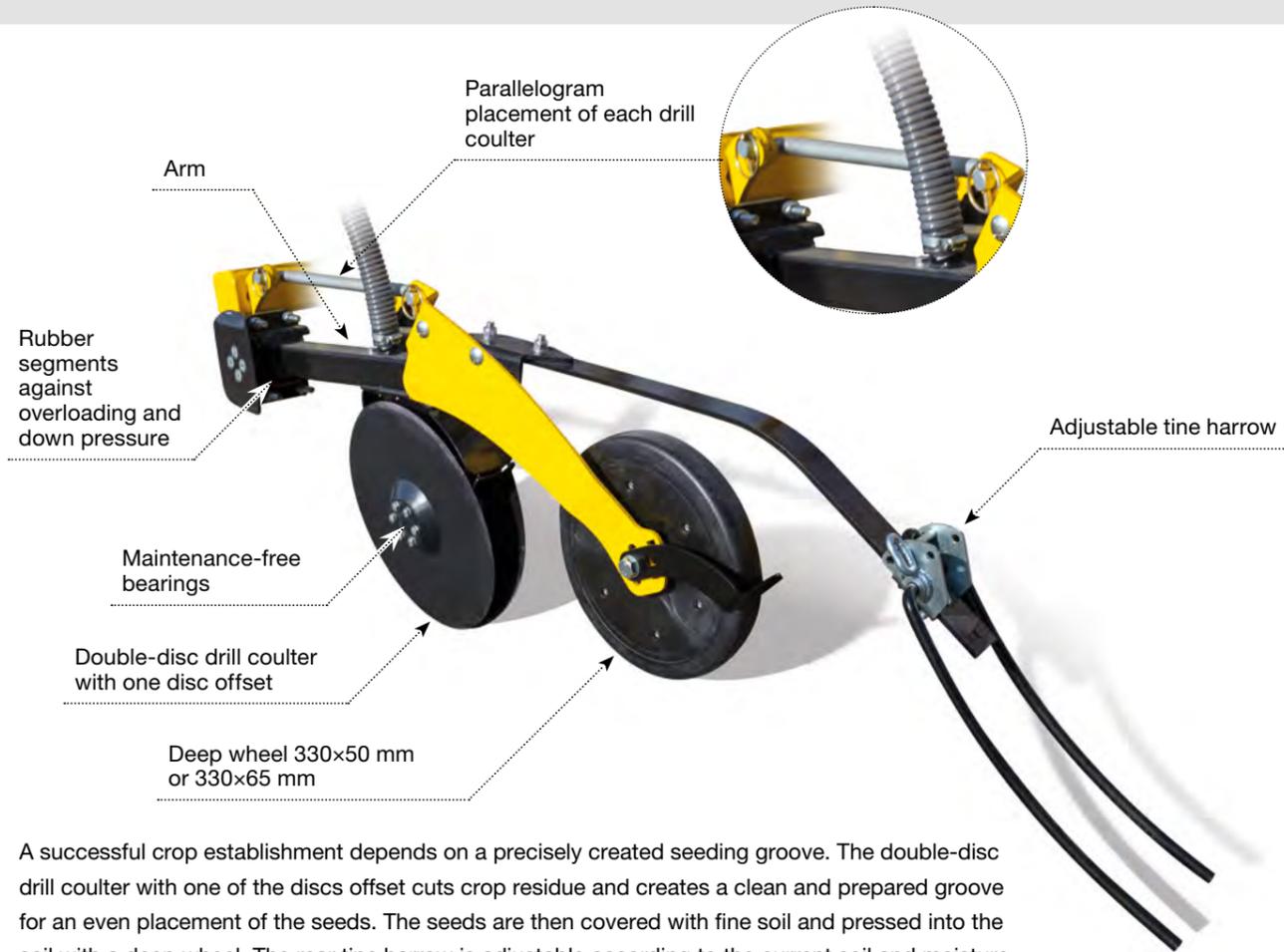


“The EFECTA CE seed drill impressed us above all with its robust construction compared to other seed drills. We expect long life and great durability. Another reason why we chose this seed drill was the soil preparation section, we chose the version with PROFI coulters. We practice precision agriculture in this company, so one of the criteria for us was the section control function, which saves costs for seeds. From the summer establishment to the the autumn sowing of winter crops, we have planted approximately 4,000 hectares with a seeder, the daily output depends on the conditions. We sowed 127 hectares in a 12-hour shift.”

Bogusław Grzywna, the company's chief agronomist, and Rafał Kleniewski, a precision agriculture specialist

Kombinat Rolny Kietrz Sp. z o.o. | 8500 ha
Kietrz, Poland

Precise Seed Placement



A successful crop establishment depends on a precisely created seeding groove. The double-disc drill coulters with one of the discs offset cuts crop residue and creates a clean and prepared groove for an even placement of the seeds. The seeds are then covered with fine soil and pressed into the soil with a deep wheel. The rear tine harrow is adjustable according to the current soil and moisture conditions. The leveller creates an optimal soil structure for seed germination.



DRILL COULTER DOWN PRESSURE

The down pressure of the drill coulters can be set using hydraulic cylinders. The down pressure can be set at up to 130 kg.



SEEDING DEPTH SETTINGS

The seeding can be set using hydraulic cylinders with hydroclips.



Inter-row spacing of 12.5 cm for majority of the stubble cultivation with a higher ratio of cereals in the seeding procedure. Possibility to plant winter oilseed rape in every other row with an inter-row spacing of 25 cm, or every two rows with a spacing of 37.5 cm.



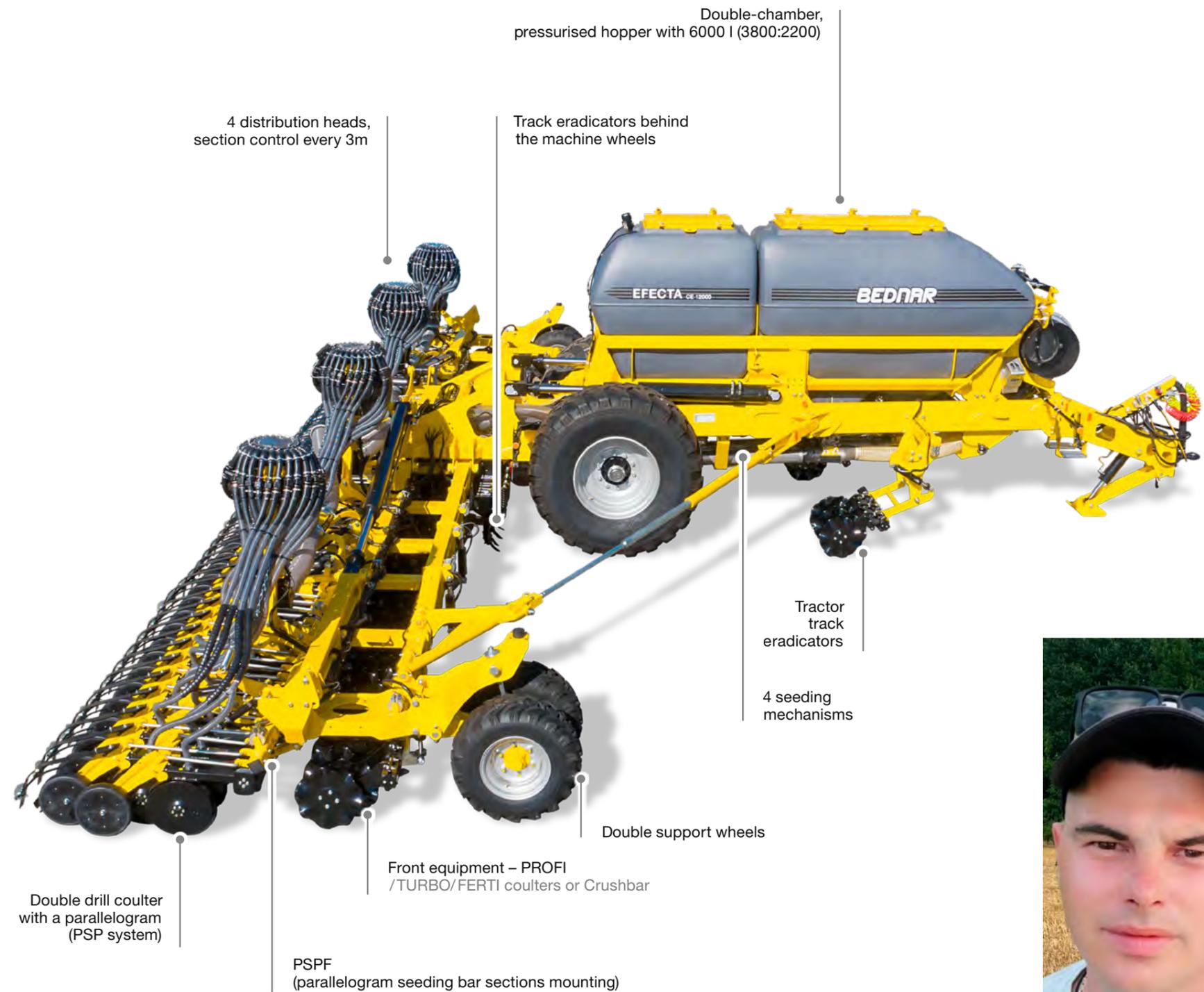
Inter-row spacing of 16.7 cm for stubble cultivation with higher precipitation or an unusually large amount of crop residue on the surface.



THE WIDE SEED DRILL MEETS THE EU REQUIREMENTS

Even though the EFECTA CE seed drill has a working width of 12 metres, its transportation on roads is easy and safe. The side frames of the seed drill fold forward and the transport length is only 7.8 metres. The wide arrangement of the transport wheels provides a good stability, even at higher speed. The compact dimensions also contribute to easy and fast turning at headland.

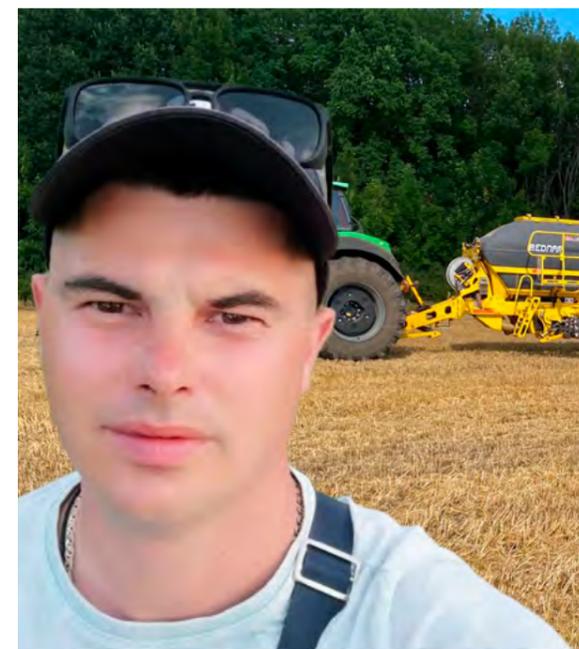
Basic Description



EFECTA CE

	CE 12000	
Working width	m	12
Transport width	m	3
Transport length*	m	7,8
Transport height	m	4
Drill coulter spacing	cm	12,5 16,7
Number of seeding coulters	pcs	96+2 72+2
Drill coulter down pressure	kg	100
Number of TURBO/PROFI coulters	pcs	96 74
Number of FERTI coulters	pcs	48 37
Coulters spacing	cm	12,5 16,7
Hopper capacity (ratio)	l	6000 (60:40)
Filling height	cm	300
Recommended output**	HP	300–450
Frame type		folding
Maximum axle load	kg	10000
Maximum hitch load	kg	3000
Hitch type		lug 51, 55, 62, 71, 73
Total weight*	kg	13000

* acc. to the equipment ** depends on soil conditions



“Definitely EFECTA CE is a successful investment for us. We got the perfect growth after it—both wheat and rapeseed. Previously we used the seed drills with a different concept—of larger row spacing for example, without any PSP system. Now we see that the difference is huge. We usually prepare soil before sowing—either with SWIFTERDISC disc or with separate packers. During the first season, we made with EFECTA CE 2,000 hectares. We plan to sow 5,000 hectares next year. We have a young tractor operator who says that the control and operating of the drill is intuitive and simple. A special advantage is the transport width of 3 m and the optimal height of the drill, as we have to move a lot between the fields.”

Vadim Yakovenko, zástupce jednatele

TOV „ZHYTNYTSYA SLOBOZHANSCHYNY“ | Ukraine
5000 ha

I did my best, for maximum Yield this year

Soil Cultivation



SWIFTERDISC
Disc Cultivators



ATLAS
Disc Cultivators



FENIX
Versatile Cultivators



VERSATILL
Versatile Cultivators



SWIFTER
Seedbed Cultivators



KATOR
Rotary Harrow



TERRALAND
Chisel Plough



ACTROS
Combined Cultivator



CADDY
Universal Carrier

Seeding and Fertilising



OMEGA
Seed Drills



ALFA DRILL
Seeding Unit



COMBO SYSTEM
Double-Chamber Storage



FERTI-BOX
Hopper for Fertiliser

Inter-row/Line Cultivation Mulching



ROW-MASTER
Inter-row Cultivator



STRIP-MASTER
Line cultivator



STRIEGEL-PRO
Harrows



MULCHER
Rotary Cutters

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