



PRIOS 440

The planter that combines seven steps in a single pass

1 2 3 4 5 6 7

When every window of good weather counts and the foundations for the entire yield are being laid, you need a machine that can do more than just place the tuber in the furrow. Our PRIOS 440 combines all key steps in a single passage – precisely, in a controlled manner and perfectly coordinated.

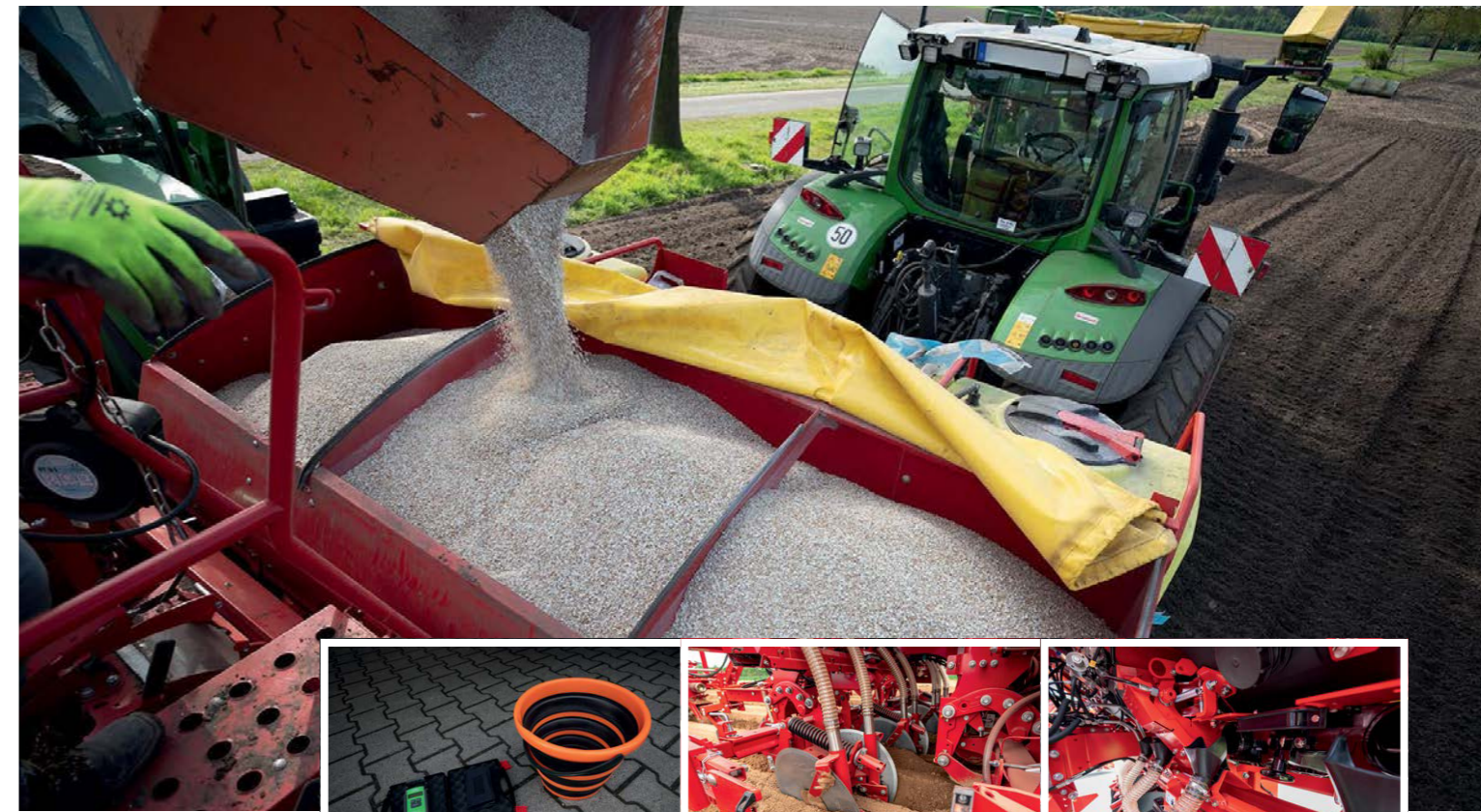
A machine for farmers that leave nothing to chance when it comes to planting.



Configure your
new PRIOS 440
now.

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GRIMME



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1. Soil cultivation

Flexible soil cultivation – regardless of the planting depth.

Thanks to its unique design featuring a **gooseneck drawbar**, the PRIOS 440 is ideally suited for combining various **actively driven soil cultivation implements**, such as a rotary tiller or a rotary harrow, with the planter. The use of passive soil cultivation implements, such as subsoilers, is also an option. The gooseneck drawbar **extends by 1,100 mm** and can be adjusted in 100 mm increments. This allows the machine combination to be optimised and improves manoeuvrability at the headland.

Another main advantage: The depth control for the soil preparation is independent of the potato planter. This ensures that the set working depth is reliably maintained – regardless of uneven ground or machine movements. The result is a uniformly prepared soil surface, providing ideal conditions for planting of the tubers and all subsequent steps.

To ensure stable handling in the field, the PRIOS 440 is equipped with **hydraulic axle steering**: On the model designed for bed cultivation (PRIOS-BEET), the steering angle is up to $\pm 30^\circ$; on the PRIOS-PRO, it is up to $\pm 20^\circ$ in both directions. This reduces slipping on slopes, improves directional stability and makes it easier to perform precise turning manoeuvres.

For farms looking to flexibly integrate a machine for active soil cultivation, maintain a constant working depth and remain manoeuvrable at headlands, the PRIOS 440 is the ideal machine.

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2. Under-root fertilisation

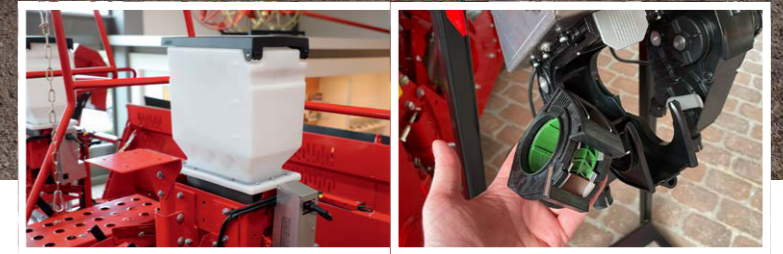
Precise under-root fertilisation with a consistent application depth.

The PRIOS 440's integrated fertiliser box has a capacity for **two BigBags (1700 litres)** and enables high application rates without the need for frequent refilling. The application rate ranges from **around 100 kg/ha to over 1,500 kg/ha**.

The fertiliser is deposited via injection discs with a diameter of 570 mm, precisely to the right and left of the tuber. The vertical distance can be adjusted to up to 10 cm below the seed tubers. This ensures that the nutrients are available in the root zone at an early stage – without coming into direct contact with the tuber.

To ensure better cleanliness and user safety, the fertiliser box can be **completely emptied**. Each outlet can be closed individually; there is also a cleaning and residual emptying mode, which can be conveniently activated via the terminal. The built-in **calibration test** menu allows for simple and repeatable adjustment of the application rate.

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3. Application of liquid chemicals

The PRIOS 440 can be fitted with a **barrel system** for applying liquid seed dressings or furrow treatments. All functions are controlled centrally via **ISOBUS**. An 800-litre spray tank, **officially tested by the German Julius Kühn Institute (JKI)**, is used to ensure safe and clean application. In addition, a 95-litre rinse water tank and an 18-litre hand wash tank are built in.

The switching between different applications and the distribution of the liquid chemicals are carried out via defined **Camlock connection** points. These connection points allow for clear identification of the tubes and a quick, tool-free changeover. Depending on the configuration, the operator can switch between tuber and furrow treatment.

The entire design has been deliberately kept simple and straightforward. Connecting to the tank system and changing the application can be done without any complicated conversion procedures. This ensures that the handling remains clearly structured and practical even when implementing more complex crop protection strategies – whilst offering a high degree of flexibility under changing conditions.

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4. Micro granulate

Precise application of microgranules and furrow treatment agents.

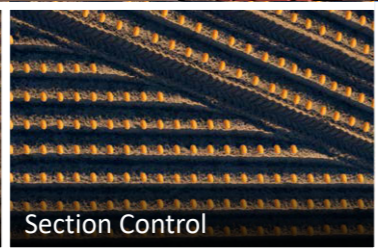
The microgranule spreader on the PRIOS 440 has been thoroughly refined. The new system has a hopper capacity of **40 litres** and covers an application rate range of **3 to 100 kg/ha**. This provides a significantly wider range than previous systems (available from 2027).

Application is speed-dependent, compatible to Variable Rate Control (VRC) and fully integrated into the GRIMME user interface. The granulate spreader has also been **approved by the German Julius Kühn Institute (JKI)**.

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Clever Planting



Section Control



Variable Rate Control



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5. Planting

Precise planting of each tuber at a constant depth.

The planting depth is controlled mechanically via feeler wheels or hydraulically via an automatic depth control system, depending on the equipment. Even under varying soil and ridge conditions, the planting depth remains constant across all four rows.

The planting elements are designed for easy maintenance: Elevator belts can be tensioned and slackened without tools, and **drop pipe inserts** can be adjusted without tools. The **electric intensive agitators** can be adjusted in rows. The machine is emptied using a central lever on the side of the machine.

Planting distances of 10 to 60 cm, working speeds of up to 10 km/h and a hopper capacity of 3,500 kg to 4,000 kg enable high-performance and precise planting of the tubers.

For farms seeking consistent planting depth, reliable tuber guidance and high acreage output, the PRIOS 440 provides the ideal foundation for uniform planting.

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6. Ridge shaping unit

Stable ridges thanks to a combined "Hybrid" ridge shaping unit

The PRIOS 440's ridge shaping unit is integrated directly into the planting process and is **hydraulically depth-controlled**. It operates independently of the chassis and adapts to changing conditions – ensuring that **tuber coverage and ridge profile remain consistent even on uneven terrain**.

Immediately after tuber placement, serrated, individually spring loaded **covering discs (Ø 510 mm)** begin pre-forming of the ridges and ensure a smooth flow of soil. The soil volume is controlled hydraulically, allowing the volume of soil to be precisely adjusted to suit the soil structure and moisture content.

A range of different tools are available for shaping the ridges: ridging bodies made of PE for stable ridge flanks, ridge-crown plates for smooth crowns, and **cage rollers for an open-pored, crumbly ridge structure**. In the configuration for hybrid-ridge shaping the machine is equipped with ridge-crown plates AND cage rollers – **ensuring stable ridge flanks whilst maintaining an open-pored crown**. Adjustment can be carried out in the field without the need for tools.

An **automatic hydraulic pressure control system** continuously adjusts the ridge pressure, thereby ensuring a **consistent, reproducible ridge shaping**.

For farmers who need maximum flexibility in ridge shaping and want to respond quickly to **changing soil and weather conditions**, the PRIOS 440 offers the ideal solution.

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7. Protection against erosion (by TerraProtect)

Active protection against soil erosion – particularly on slopes.

TerraProtect is an optional erosion protection system that constructs "dykes" at specified intervals. This slows down surface water runoff, reduces the risk of erosion and, at the same time, improves water absorption (infiltration) – particularly during heavy rainfall and on slopes.

In the **TerraProtect PRO version**, the frequency of the dykes is **controlled according to the planting speed**, ensuring that the spacing of the dykes remains consistent even when the speed varies. In addition, individual rows can be switched off as required, for example for spraying tracks.

For farmers who want to reduce erosion on slopes and actively support the water balance in the ridges, TerraProtect / TerraProtect PRO offers clear added value.

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