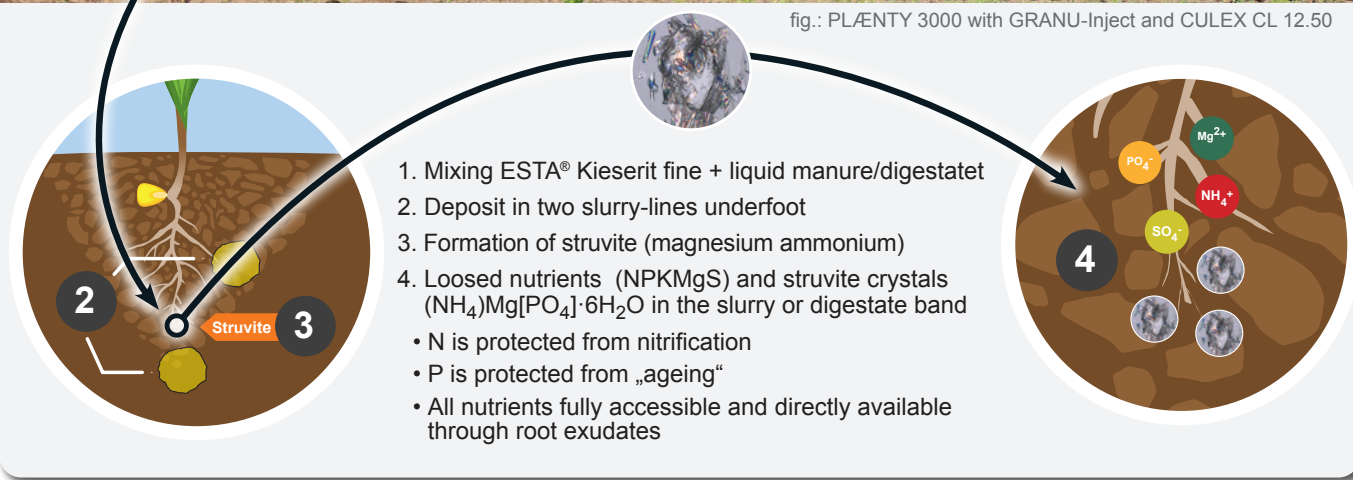




fig.: PLÆNTY 3000 with GRANU-Inject and CULEX CL 12.50



1. Mixing ESTA® Kieserit fine + liquid manure/digestate
2. Deposit in two slurry-lines underfoot
3. Formation of struvite (magnesium ammonium)
4. Loosed nutrients (NPKMgS) and struvite crystals (NH₄)Mg[PO₄]·6H₂O in the slurry or digestate band
 - N is protected from nitrification
 - P is protected from „ageing“
 - All nutrients fully accessible and directly available through root exudates

MAP-PRECIPIATION

The aim here is to use the magnesium from kieserite and the ammonium and phosphorus from the slurry to grow struvite crystals in the slurry lines.

Struvite has a sand-like structure with a typical nutrient composition of 5%N, 23%P O₂₂ and 12%MgO. Struvite is a magnesium ammonium phosphate (MAP), which has the efficiency-improving advantage that part of the nitrogen from the liquid manure is bound as ammonium in struvite and is protected from nitrification and washout losses. Furthermore, the phosphate from the liquid manure in the new Struvite compound has very good citric

acid solubility and thus plant availability via root exudates, equal with triple superphosphate. The phosphate is thus protected against ageing and remains readily available to plants. Due to its relatively high weight (bulk density 1,380 kg/m³), Kieserit fine is difficult to mix homogeneously into a 20 m³ slurry tanker, for example. The „just-in-time“ introduction of Kieserit fine into the distribution head has the advantage that an exact mixture can be produced and that crystallization only begins in the soil and no sand-like deposits can occur in the spreading vehicle. The media can no longer unmix until they enter the soil.

CONCLUSIONS:

- Close nutrient gaps in organic farm manure for Mg and S
- Improvement of N and P efficiency through the struvite effect
- More root growth, more vital plants and better grain filling



PLÆNTY
Fertilizer/Seed Wagon
PLÆNTY 3000



GRANU-Inject
Fertilizer Injection
GRANU-Inject



GRANU-Inject Mini
Fertilizer Injection
GRANU-Inject Mini 600



autoFLOAT ISOBUS
Controller
autoFLOAT ISOBUS



DOMAX
Distribution Head
DOMAX



Fertilizer/Seed Wagon **PLÆNTY 3000** with **GRANU-Inject**



VOLMER AGRITEC GmbH
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48429 Rheine
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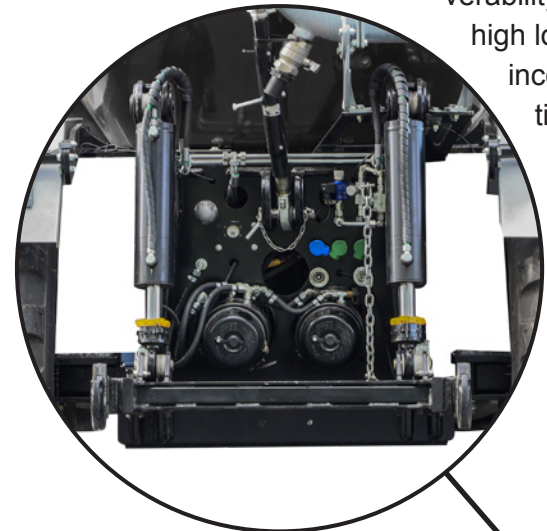
Phone. +49 59 71 94 63 2-0
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info@volmer-agritec.de

PLÆNTY



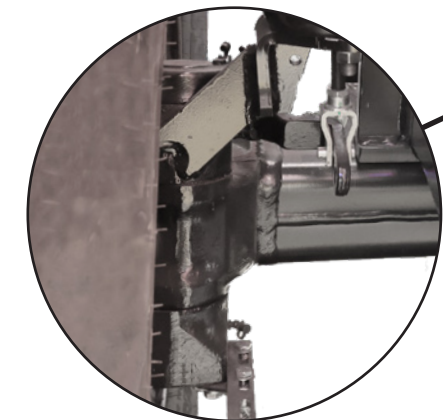
Fertilizer/Seed Wagon PLÆNTY 3000 with GRANU-Inject

The PLÆNTY 3000 fertilizer/seeder wagon is designed for spreading large quantities of seed or fertilizer. The compact design enables maximum maneuverability with a high load capacity. The drawbar and tires are designed for high loads, even behind self-propelled vehicles. All Attachments for slurry incorporation are possible: Strip-Till, cultivators, short disk harrows, slitting implements, etc.



8. Lifting Gear

- On the lifting gear of the PLÆNTY 3000 category III lower link hooks with category III width are installed.
- The linkage is operated via a tractor control unit as standard.
- Mechanically adjustable lifting and lowering limiter, locking-block as well as electrically switched floating position are factory-fitted.



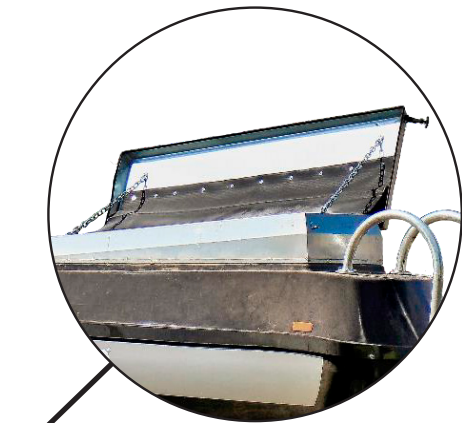
7. Axis

- A GPS-controlled steering axle can be fitted as an option.
- Drifting can be corrected on slopes.
- The wagon follows the tractor track exactly at the headland.



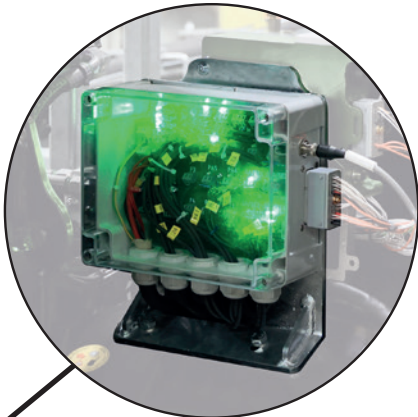
6. Tires

- Single tires: 750/45R26,5
800/45R26,5
- Dual tires: 270/95 R36
- Steering axle: 750/45R26,5



1. Filling Opening

- The PLÆNTY fertilizer seed wagon can be filled via a 2,050 mm x 800 mm opening. The top cover also forms the rear boundary when filling with a telescopic or front loader.
- A sieve holds back larger lumps.



2. Control System

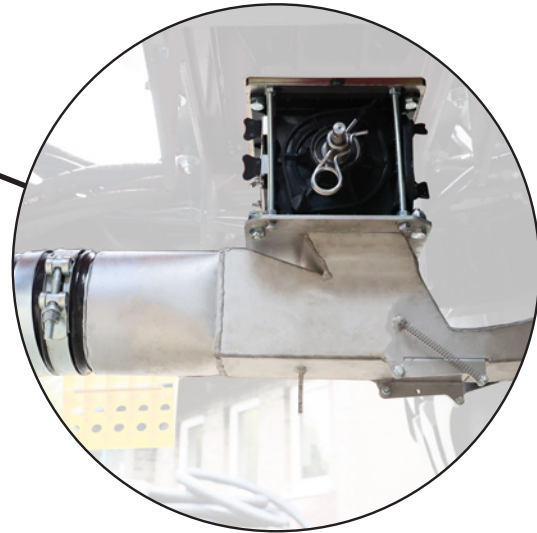
- The PLÆNTY is supplied with an ISOBUS control system as standard.
- The application and sowing quantities can be regulated via application maps.
- When using the GRANU-Inject the ingredient measurement of the slurry or fermentation substrate is not affected, as the fertiliser is added downstream of the NIR sensor.



3. Drawbar

- The PLÆNTY 3000 is driven in the lower links as standard. The pivot point is offset to the rear, making the trailer extremely maneuverable.
- The top cylinder fitted as standard on the drawbar ensures sufficient drawbar load on the towing vehicle, even with heavy attachments.

fig.: PLÆNTY 3000 with GRANU-Inject



5. Dosing Unit

- The metering drive is ISOBUS-controlled, which means that the target admixture quantity can also be controlled via application cards.
- Media from 0 - 600 kg per hectare can be applied.

4. Data

	Unit of measurement	PLÆNTY 3000
Container volume	litre	3.000
Empty weight	kg	3.600
Permissible total weight	kg	14.000
Lifting force three-point	kg	6.500
Maximum speed	km/h	40
Length	m	4,68
Height	m	2,90
Transport width	m	3,00
Dosing system	pcs.	1
Air brake system		Series
Steering axle		optional

Weights and dimensions are approximate and non-binding. Subject to change without notice.

PLÆNTY 3000 - Use as a Fertilizer/Seeding Wagon:



- Single Grain Drill
 - Seeding Rail
 - Disc harrow/spring tine
 - Hydraulically driven fertilizer spreader
 - Hoeing at row crops
 - Strip-Till
 - Harrow
- Maize/rape/beet/sunflowers and other row crops
Cereals/grass/intercrope with sowing bar for Intertillage more volume for larger agriculture crop land
Applying fertilizer mineral fertilizer depot
Grass reseeding

Additional use with GRANU-Inject for granulated fertilizers:

By additionally injecting fine and granulated fertilizers, nutrient gaps in organic farm manure can be closed!



- e.g.:
- Addition of ESTA® Kieserit fine (magnesium + sulphur)
 - Addition of nitrogen fertilizers such as urea
 - Addition of potassium fertilizers
 - Addition of fertilizers with micronutrients
 - Addition of phosphorus fertilizers

Most positive effects are achieved when correctly placed fertilizer deposits are created in root crops.

How GRANU-Inject works

