SUMO DTS

DEEP TILLAGE SEEDER

3 YEAR WARRANTY*

T +44 (0) 1759 319900 www.sumo1.com

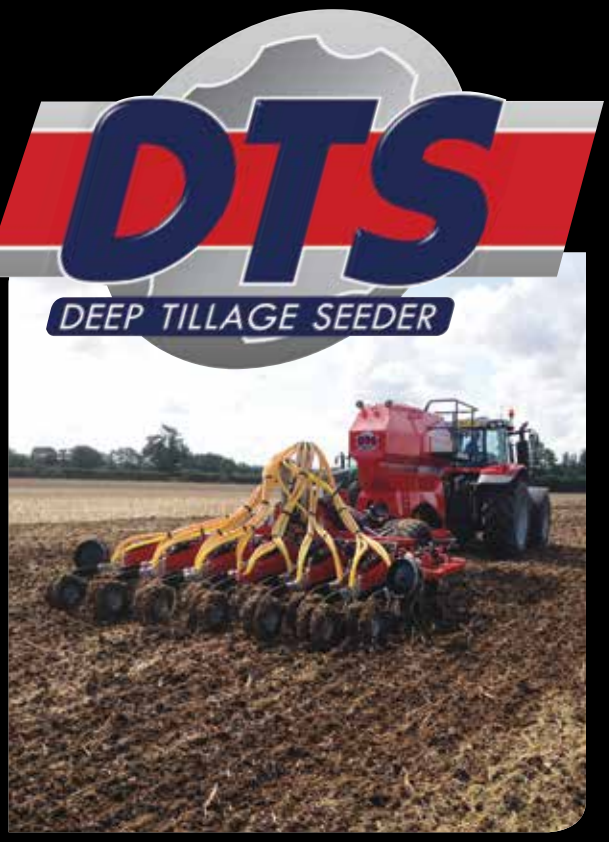
*Excludes Sumo none manufactured and wearing parts.

The DTS is designed to work directly into previous year's crop residues - and will also work equally well with a min-till or plough-based system

A one-pass drill that can work straight into previous crop residues and cover crops, as part of integrated conservation agriculture, benefitting the environment and also increasing margins.

The DTS (Deep Tillage Seeder) drill is based on a concept known as 'strip till drilling', a method of only loosening and preparing a band of soil where the seed is to be placed and leaving the soil in between undisturbed, and therefore not working ground unnecessarily.

There are many advantages to this process: it is quick, large areas can be drilled in one pass, soil structure improves (which means better drainage, less erosion and general well-being of the soil) and in most cases, the cost and time savings are huge.



Strip tillage with the DTS

Sowing crops in a wide spaced strip allows lower seed rates to be used. This allows plants to tiller and take advantage of better light and air infiltration between the rows, leading to healthier and stronger plants

Strip Tillage Facts:

- Only loosening the ground into which plant roots will grow reduces fuel consumption and steel wear, lowering establishment costs

  Leaving ground in between the rows undisturbed improves the soil carrying ability for following operations with sprayers, tractors and combines etc.
- In a dry period, strip tillage allows roots to develop quickly in the loosened tilth but does not allow the undisturbed ground in between the strips to dry out excessively
- In wetter conditions, the fissures created by the loosening tines encourages the infiltration and drainage of surface water
- Soil structure preservation using this method encourages increased levels of worms and beneficial soil fauna
- Strip till drilling into a cover or 'manure' crop is an ideal method of integrating your farm into conservation agriculture
- Reduces carbon release from the soil

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DTS DEEP TILLAGE SEEDER

There are many benefits of using the Sumo DTS to establish crops on both agronomic and economic levels. Here are a few figures to highlight possible cost savings that could be achieved by switching to a 'strip-till' system – CAN YOU AFFORD NOT TO LOOK!!

Cost

Time

Conventional Tillage	£/ha	Ha/hr	Hr/ha
Plough	60	0.8	1.25
Press	20	1.5	0.6
Power Harrow	37	1.25	0.8
Drill	30	3	0.3
Roll 8m	9	4	0.25
	156		**3.2**

Typical plough based establishment system

Min Till	£/ha	Ha/hr	Hr/ha
Min Till Cultivator 3m	40	2	0.5
Heavy Press 4.6m	18	4	0.25
Spraying	14	7.5	0.13
Tine Drill 4m	25	3	0.3
Roll 8m	9	4	0.25
	106		**1.43**

Typical min-till based establishment system

Strip-Till Drilling	£/ha	Ha/hr	Hr/ha
Straw Rake 6m	7.8	6	0.16
Spraying	14	7.5	0.13
DTS 4m Drill	41	3	0.33
Roll 8m	9	4	0.25
	71.8		**0.87**

Typical DTS strip-till drill establishment system

54% saving over conventional tillage

32% saving over min-till

73% saving over conventional tillage

39% saving over min-till

*all figures based on averages taken from across the UK

DTS
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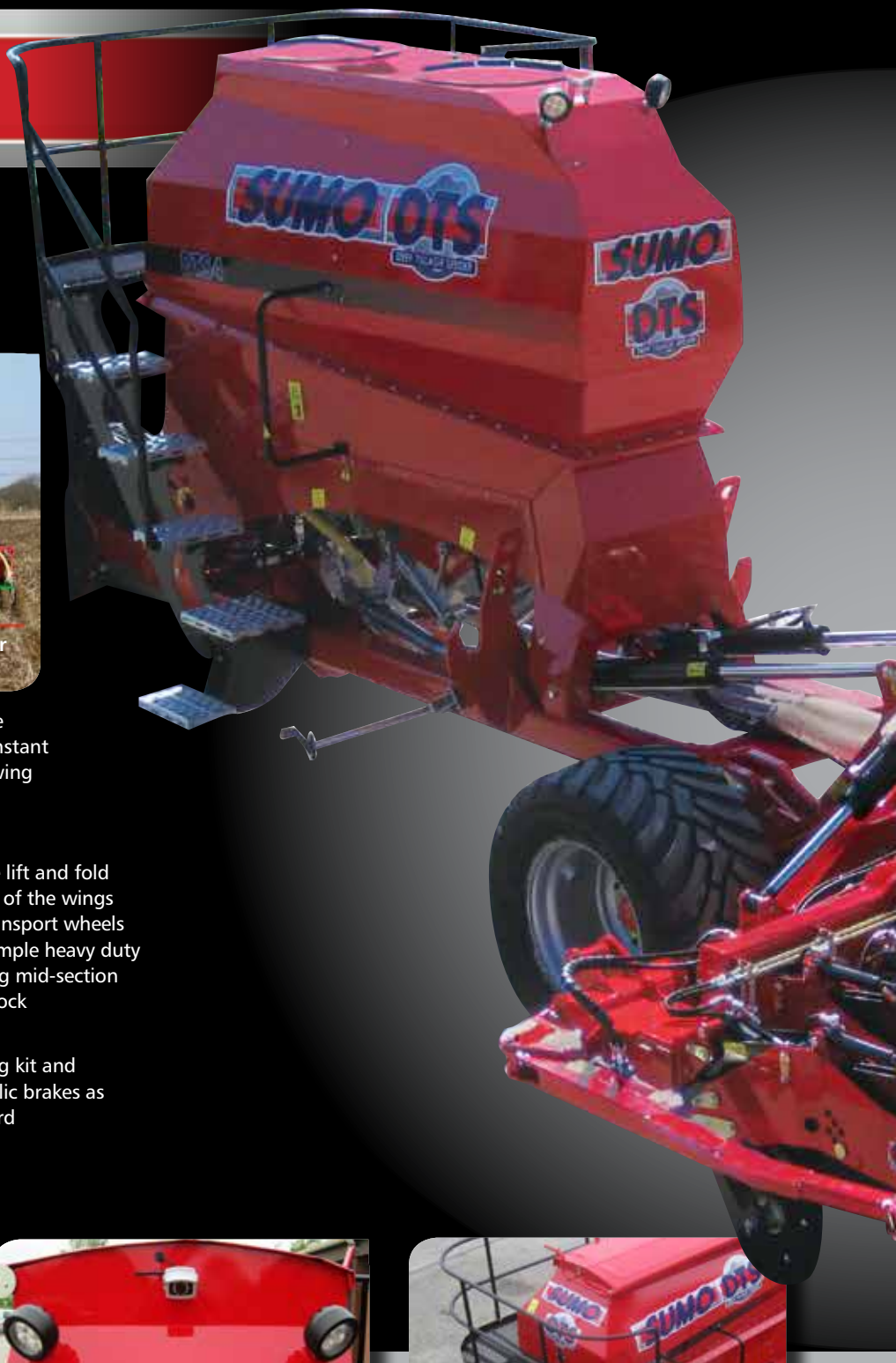
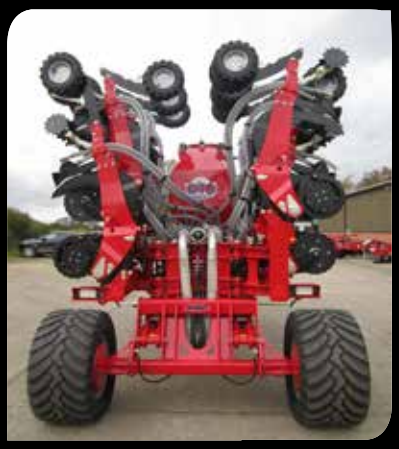


Features

The contour-following ability of the coulter system is highlighted by the green line

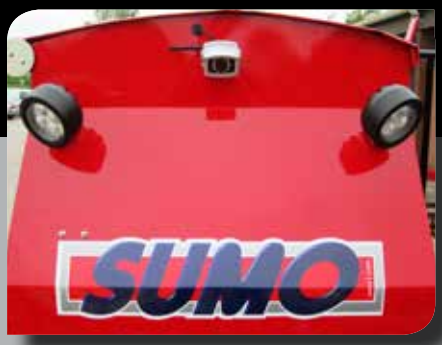
The individually mounted seeding units articulate with ground contours and are governed by a constant pressure hydraulic system, ensuring accurate sowing depth regardless of the drill width.



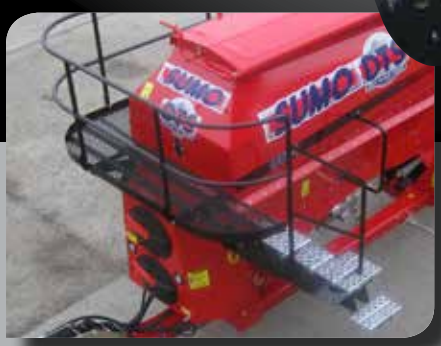
Unique lift and fold system of the wings and transport wheels on a simple heavy duty pivoting mid-section headstock

Lighting kit and hydraulic brakes as standard

Heavy duty axles, 2.8m transport width



Cameras and LED work and hopper lights as standard



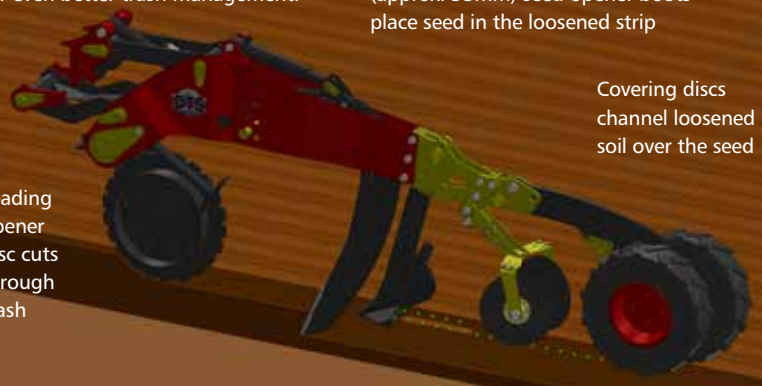
Sturdy access platform and steps, lockable toolbox

All 2016 models feature extra stagger for even better trash management.

Wide band (approx. 150mm) or narrow (approx. 35mm) seed opener boots place seed in the loosened strip

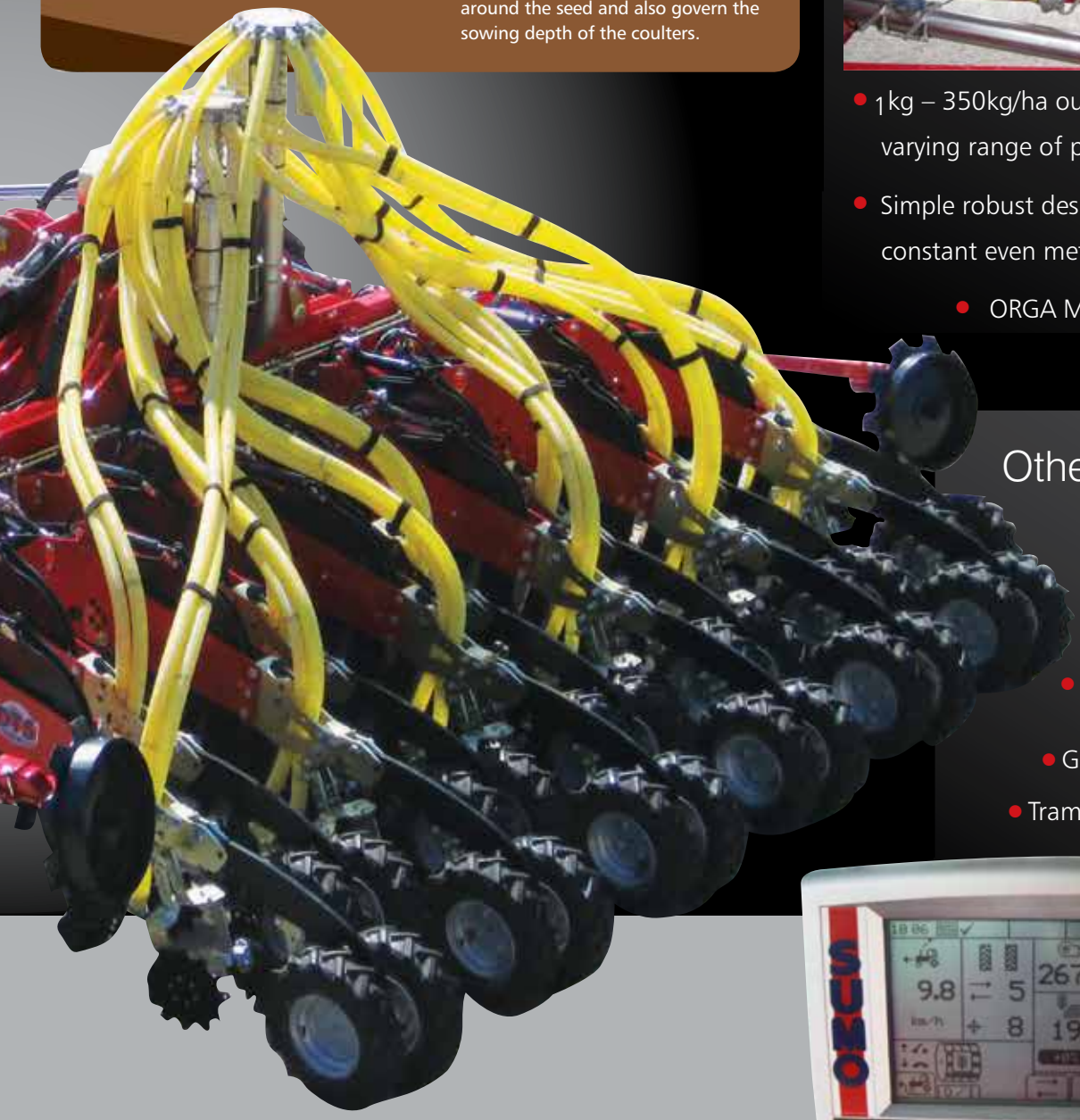
Covering discs channel loosened soil over the seed

Leading opener disc cuts through trash



Single tungsten-edged deep loosening auto-reset leg capable of a maximum working depth of 250mm

Foam filled press wheels firm the soil around the seed and also govern the sowing depth of the coulters.

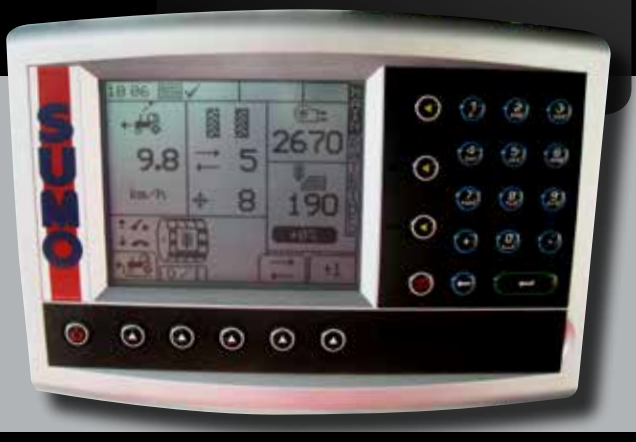


SUMO ORGA™ METERING

- 1kg – 350kg/ha output for a varying range of products and seeds
- Simple robust design ensures constant even metering
- ORGA Metering as standard

Other features

- RDS Artemis variable rate drilling
- One touch calibration
- Half width shut off on 6m and above
- GPS compatible
- Tramline function



DTS Seed and Fertiliser

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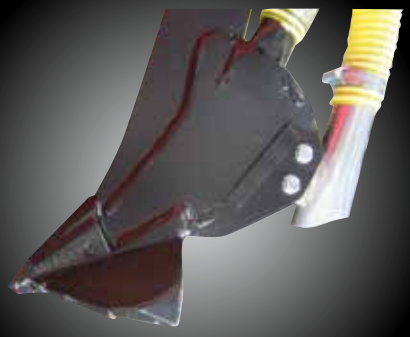
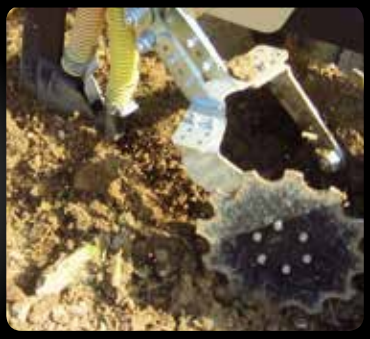
The DTS also has the capability to apply granular fertiliser as well as seed.

The targeted application of fertiliser into the rooting zone means a potential reduction in product applied as nutrients are more readily available to the plant roots reducing the potential for nutrient leaching and wastage. Dual products drilled and applied in one pass greatly reduces input costs and time especially in a tight drilling season.



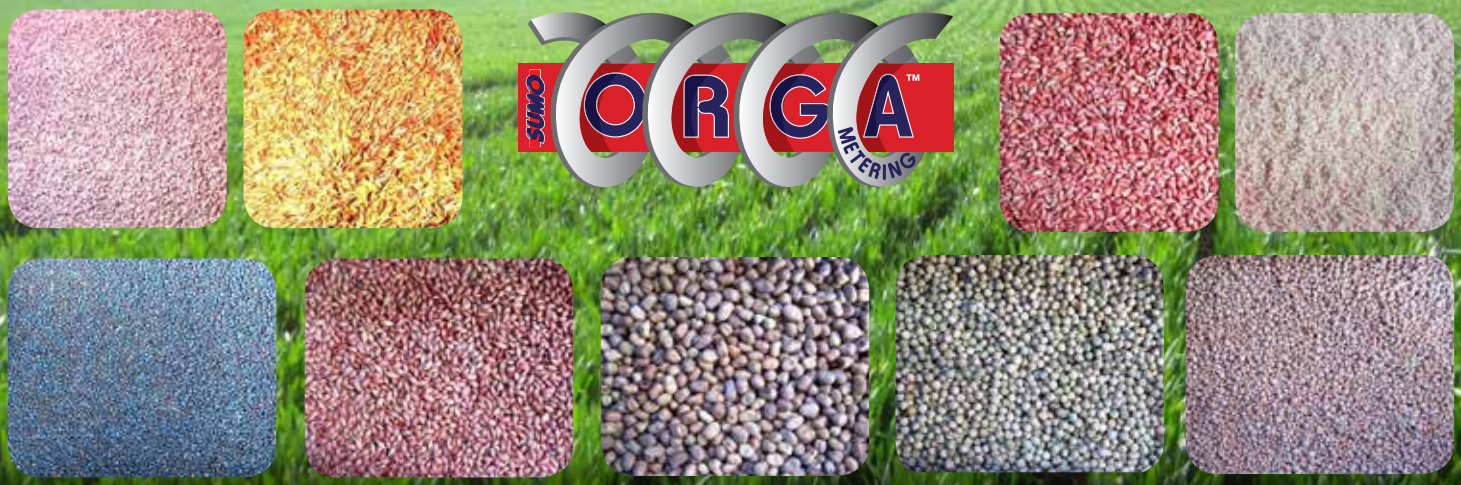


Localising the fertiliser to the correct area dramatically improves germination and establishment and also gives the growing crop a strong and healthy start especially in difficult wetter conditions later in Autumn or in the Spring time.

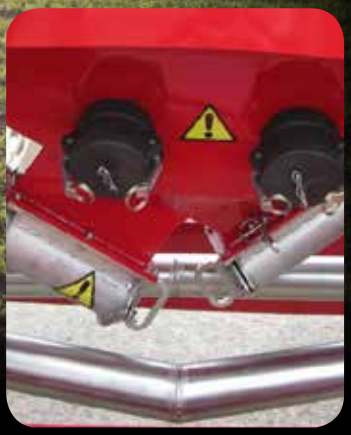
The option of seed and fertiliser is available on all trailed drills.

The fertiliser kit includes a 50/50 split seed hopper (totalling 3000ltrs for 4 & 4.8m models, 3600ltrs for 6m – 9m models), separate stainless steel ORGA metering unit, transfer pipes, upstack, metering head and application nozzles.

The hopper consists of a removable baffle to utilize both hoppers when only applying one product, emptying slides for quick emptying of product, low level sensors, lights and a remote camera in both front and back hoppers as standard.



Metering for both seed and fertiliser is taken care of by the Sumo ORGA (patent applied for) metering units that are simple to adjust, calibrate, maintain and clean, and provides a uniform even feed over a wide range of application rates and volumes, all controlled by the RDS Artemis variable rate system controller.



An agitator can also be engaged for light and difficult to run products to prevent bridging and present an even flow to the ORGA system. Also included is a heat exchanger in the airflow to provide dry air to the system to keep things dry and reduce product build up, even in damp drilling conditions.

Air balancing valves in the air lines allow you to tailor the airflow when dual products are being applied with different volumes and application rates.

Working into previous crop residues …

The leading opener disc allows the DTS coulter system to work without the need to incorporate or bury existing crop residues. It opens a clean slot for the loosening leg to work into which in turn creates a loosened trash-free strip of tilled soil for seed to be placed into.

Only loosening a band of soil...

By only loosening the rooting zone of the soil strip, the ground between the rows retains its integrity and structure, therefore aiding drainage and weight carrying capacity.

Improving soil structure...

By using non-inversion techniques like strip-till drilling, beneficial organisms such as worms and bacterial fauna flourish, which in turn improves the mineral balances and general wellbeing of your soil.

Using alongside other machinery ...

Although the DTS is designed to be used as a one pass establishment system, there is no reason why it cannot be used very successfully in a min-till, on top of ploughing, or on a fully prepared seedbed if required.

"With commodity prices remaining low, we examined our crop establishment costs, and I calculated that during cultivations and drilling we were moving 7.5m tonnes of soil over our 580ha of land, costing us a lot in time, diesel and wearing metal. As we wanted to reduce the horsepower and the fuel needed to establish our crops, as well as minimise soil movement, the narrow tines on the DTS were appealing. Calibration and coulter checking is also much easier with the machine. The DTS offered better value for money, contour-following and depth control than any other machines. The coulter units are individual and under constant pressure and so follow ground contours much more accurately, ensuring seed depth is consistent. In short, it looked like a machine designed by someone who had actually been drilling."

Brian Barker, Suffolk.

Specifications

Model	DTS 3	DTS 4	DTS 4.8	DTS 5	DTS 6	DTS 8	DTS 9
Working width (m)	3	4	4.8	5	6	8	9
Transport width (m)	3.0	2.8	2.8	2.8	2.8	2.9	2.9
Hopper capacity (litres)	1600	3000	3000	3000	3600	3600	3600
Row spacing (cm)	33.3	33.3	32.0	33.3	33.3	33.3	34.6
Number of rows	9	12	15	15	18	24	26
Half width shut-off	No	No	No	No	Yes	Yes	Yes
Minimum hp. requirement	130	200	220	230	250	300	350
Format	Mounted	Trailed	Trailed	Trailed	Trailed	Trailed	Trailed

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