



CLAYDON OPTI-TILL®
DEVELOPED BY FARMERS FOR FARMERS



CLAYDON OPTI-TILL® THE MACHINERY GUIDE



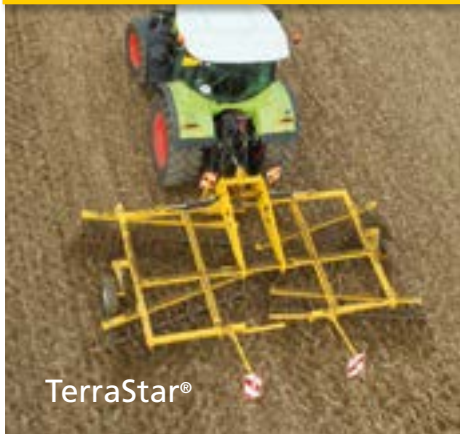
DESIGNED AND BUILT
IN GREAT BRITAIN



CLAYDON OPTI-TILL®

Fast, efficient, cost-effective. The optimum machinery mix for optimum crop establishment.

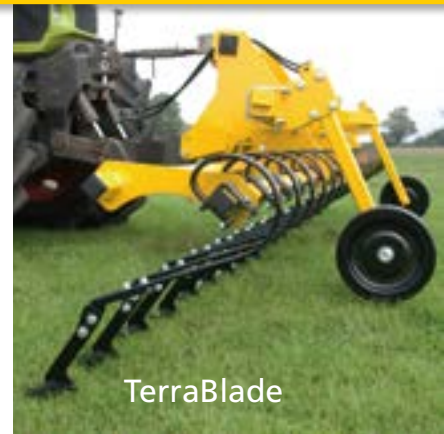
1 → Claydon Stubble & Weed Management



TerraStar®



Straw Harrow



TerraBlade

2 → Claydon Drills

The leading tine drill



3 → Claydon Rolls

Consolidation



THE HEART OF THE Opti-Till® SYSTEM

Patented leading tine technology*

Ground-breaking tine: standard set-up

The leading tine can be adjusted to a depth of between 0 for low disturbance and 15cm (6 inches) for deep rooting crops like oilseed rape. The second tine can be adjusted via the depth wheels to put the seed in as shallow or deep as necessary.



1. Centrally mounted depth wheels give very accurate seed placement as they run on undisturbed soil between the rows and do not run over or cap the seeded area.
 2. Stone-protected leading tines break through the ground lifting and aerating it whilst creating a drainage tract and space for the roots to grow deep and strong with ease.
 3. Robust, sprung seeding tines keep a highly accurate and constant seed depth, flowing through the soil lifted by the leading tines and cultivating it whilst only moving for a large stone.
 4. Levelling boards and tines leave a superbly level finish covering the seedlings in a perfect soil plant pot with drainage and space for root development.
- Fertiliser can be placed below the seed (front tine) or above the seed (rear tine) with the standard tine set up. With the twin tine option, fertiliser can be placed below the seed only (see page 20).

*for more information visit www.claydondrill.com: The Claydon System

CLAYDON TERRASTAR®



Moving a little more soil than the Claydon Straw Harrow, the TerraStar® plucks only divots from the top layer of soil leaving the structure intact and able to carry machines.

The 80x80mm divots are created by rotating “star” points fitted in a 200mm grid pattern to two knife bars each side of the machine. These star points create a fine tilth, encouraging volunteers and grass weeds to germinate. The tilth can then be moved by the Claydon Straw Harrow, breaking off germinating plants at the one-leaf stage, eliminating the need to spray while ground conditions allow harrowing.

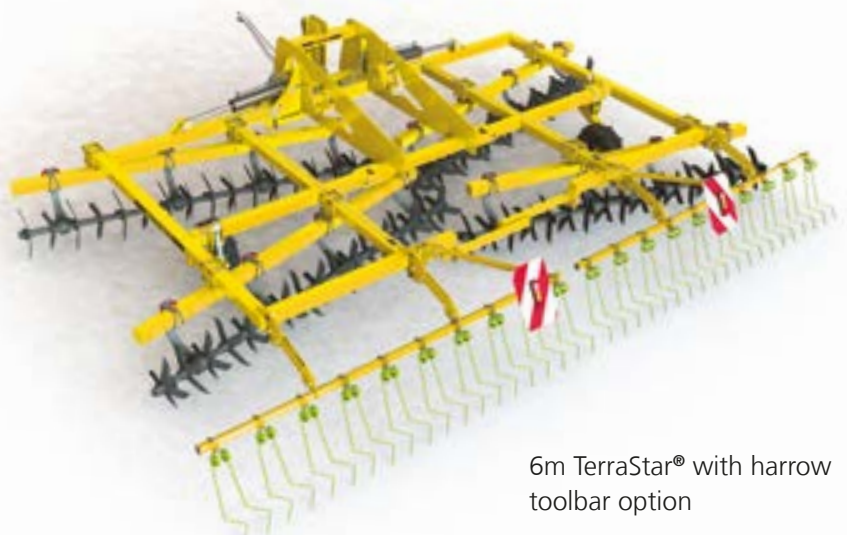
The TerraStar® helps the surface layer of soil to drain, and depth wheels ensure precise depth control for multiple passes. This versatile tool can be used as a mechanical weeder, reducing the need for glyphosate. It makes stubble management much easier and reduces slug populations.

The TerraStar® is ideal for mulching and incorporating crop or other residues. It can be used to produce more uniform seed beds, not only in unmoved soil, but behind any other cultivation equipment.

The TerraStar® is fast and effective and, like all the Claydon range, it incorporates a minimum of wearing parts, making for extremely low-cost operation.

		TerraStar®	w/toolbar
Hourly output*:	(ha/h)	7	7
Minimum power requirement*:	(hp)	150	150
Forward speed*:	(km/h)	15	15
Road transport width:	(m)	2.89	2.89
Road transport height:	(m)	3.32	3.32
Weight:	(kg)	1,750	1,970
Width:	(m)	6.40	6.40
Height:	(m)	1.33	1.33
Depth:	(m)	3.28	3.58
Star points:		68	68

*typical / suggested



6m TerraStar® with harrow toolbar option

CLAYDON TERRABLADE



The TerraBlade inter-row hoe is a low-cost, mechanical method of controlling weeds in combinable, band-sown crops. It is an additional weapon in the agricultural industry's weed control armoury at a time when the efficacy of some herbicides is decreasing whilst the cost of control is increasing.

Band sowing at 30cm leaves a 14-15cm-wide unseeded strip between the rows which can be hoed reliably and safely by the TerraBlade. By keeping the unseeded rows clear of weeds during the early stages of crop growth, competition for nutrients, light, air and water is reduced and the young plants can grow away strong and healthy.

The TerraBlade has the potential to improve crop yields, drastically lower the potential for carry-over of weed seeds and reduce the risk of more resistant types developing.

Designed for use on any tractor with a Cat II front linkage, the TerraBlade has a working speed of approximately 6 km/h and up to 30mm deep. It is manually steered and can be used whenever soil conditions allow, covering up

to 30ha a day with a 6m unit. The TerraBlade can also be fitted to rear linkage and used in conjunction with RTK steering.

On farms that drill early, crops may be sufficiently well developed in the autumn to start hoeing with the TerraBlade, and in the spring the operation can continue up to the stage where the crop might be compromised by further passes.

Although designed for the Claydon System, the TerraBlade can be used behind any band sowing system.



“98.5% blackgrass control” – Agrii

In an Agrii blackgrass trial, in an area where grassweeds had become problematic after years of conventional crop establishment, the Claydon stubble management programme, in combination with a spray programme, has achieved a very high level of grassweed control.

In the control area with no stubble management or herbicide programme, Agrii counted over 900 blackgrass seed heads/m.

Surrounding the control area, with a combination of herbicide spray treatments, Claydon Straw Harrow and Claydon TerraBlade passes, blackgrass was reduced to circa 13 heads/m, a massive 98.5% control in the field.

TerraBlade		3m	4m	4.8m	6m
Hourly output*:	(ha/h)	1.5	2	2.4	3
Working depth:	(mm)	30	30	30	30
Minimum power requirement*:	(hp)	30	40	48	60
Forward speed*:	(km/h)	6	6	6	6
Road transport width:	(m)	2.62	2.65	2.62	2.71
Road transport height:	(m)	1.76	2.05	2.47	3.15
Weight:	(kg)	450	475	500	550
Width:	(m)	3.64	4.16	4.99	6.37
Height:	(m)	1.09	1.09	1.09	1.09
Depth:	(m)	1.33	1.33	1.33	1.33
Blades:		10	14	16	20

*typical / suggested

CLAYDON STRAW HARROWS

Effective stubble management with huge output and low cost.

Claydon Straw Harrows create a micro tilth in the top 30mm of soil and use the retained moisture for a fast, even germination of weeds. They rake out and destroy weeds at the cotyledon and one-leaf stage, removing a food source for slugs. They break up slug nests and desiccate their eggs by mixing up and exposing damp chaff and straw to sunlight. At speeds of up to 25km/h, Claydon Straw Harrows are an effective stubble management tool. They shatter straw, breaking it up for faster decomposition, and can be used before or after cultivations to level soil and create a fine tilth. The robust Claydon Straw Harrow has been designed for fast action and maximum effect:

- Hydraulically adjustable tine angle creates optimum tilth
- Huge clearance for maximum flow of straw and reduced risk of blockage
- Turn on headlands with tines down in work to avoid trash build-up and straw-dumping
- 150mm square box section allows very high working speeds



- Flexible, robust 'wrap-around' long-life tines:
 - vibrate to create optimum tilth
 - no pressure points to snap
 - withstand high working speeds

Model		3m	7.5m	12.5m	15m
Hourly output (at 20 km/h)*:	(ha)	4	10	16	20
Minimum power requirement*:	(hp)	60	150	250	300
Forward speed*:	(km/h)	15-25	15-25	15-25	15-25
Fuel usage:	(l/ha)	1	1	1	1
Road transport width:	(m)	3.00	2.24	2.60	2.75
Road transport height:	(m)	1.18	3.22	2.73	3.00
Weight:	(kg)	590	1,500	3,870	4,075
Pairs of 14mm tines (16mm optional):		25	60	100	120
Hydraulically adjustable depth wheels:		No	No	Yes	Yes
Light boards & protection guards:		Yes	Yes	Yes	Yes
Tractor linkage:		CAT 2 Mounted	CAT 3 Mounted	Trailed	Trailed

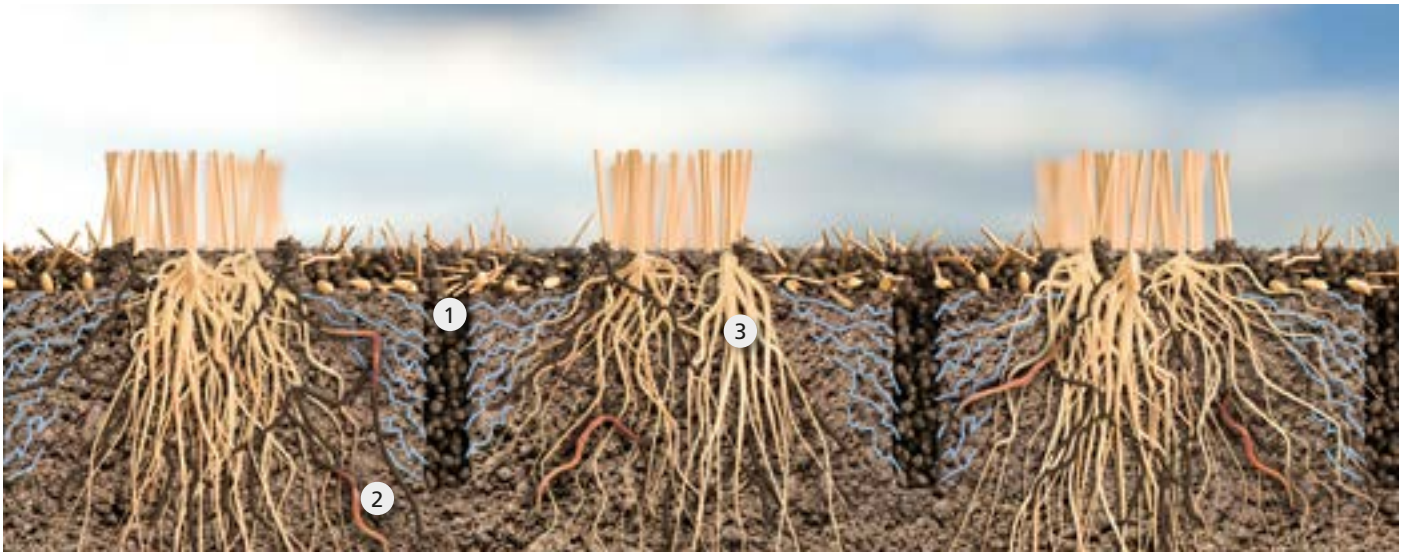
*typical / suggested



Robust wing pivot pin (440mm long, 80mm diameter)

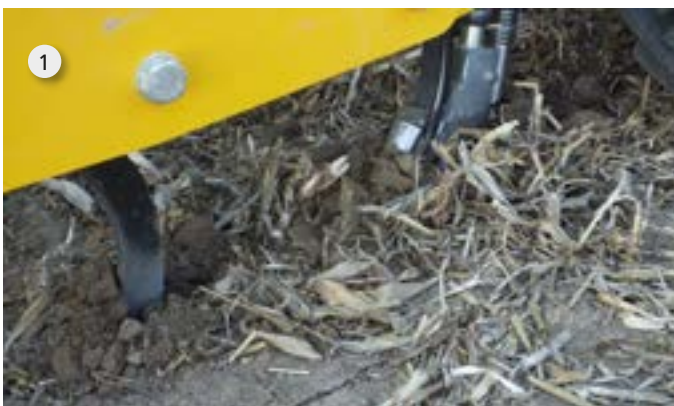


CLAYDON LEADING TINE TECH SIMPLY SO MANY BENEFITS

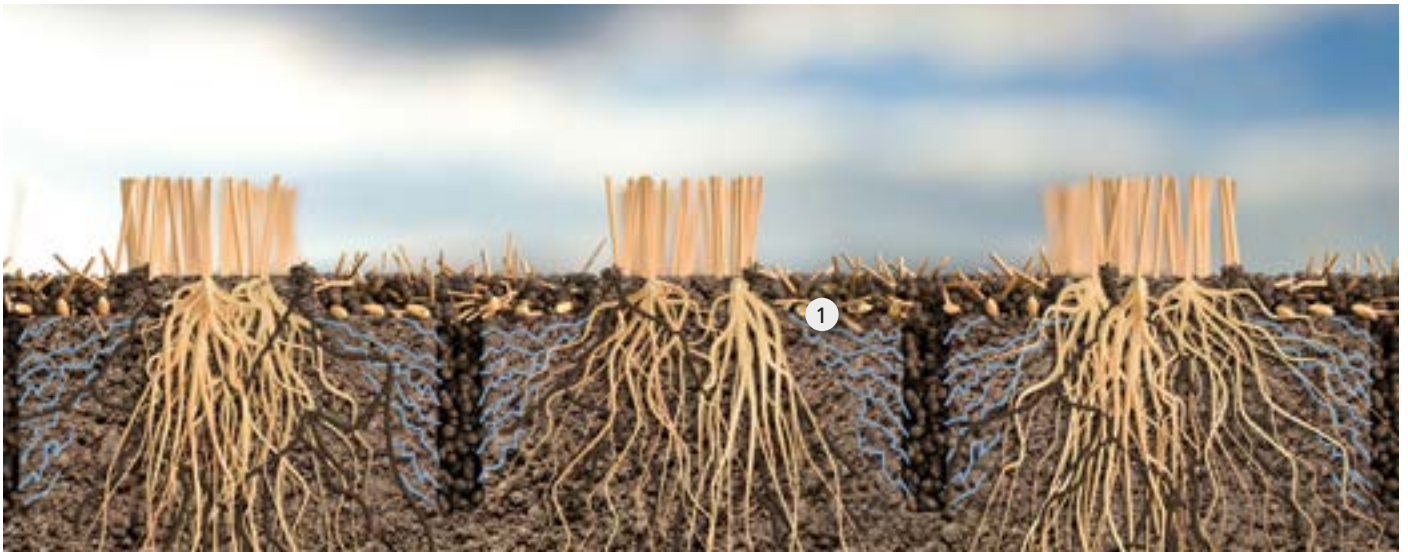


Zonal Cultivations

1. The leading tine cultivates zonally alleviating local compaction, aerating the soil and improving drainage.
2. The majority of worm burrows are left undisturbed safeguarding their numbers, aiding drainage.
3. Plant roots are left largely undisturbed adding to the soil biota improving soil structure.



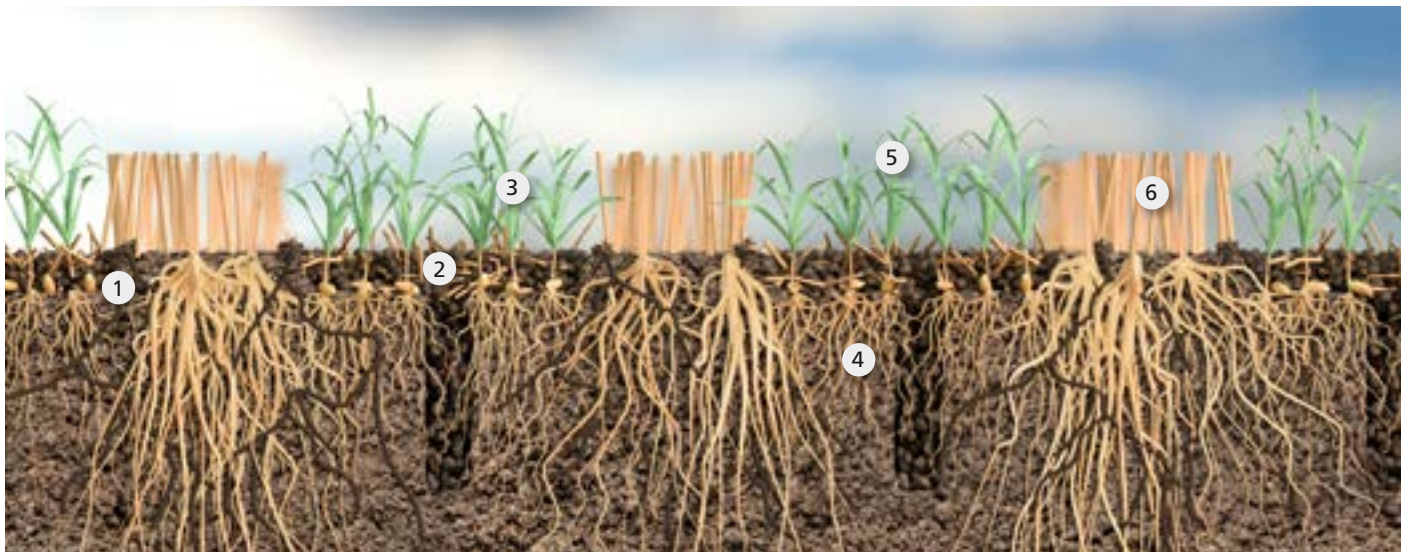
NOLOGY –



1. The leading tine creates fissures in the soil (shown in blue) creating the ideal environment for strong rooting.
2. Root development before the winter slow-down is key to yield optimisation on any given hectare.
3. Organic matter depletion is minimised due to nominal soil disturbance. Soil nitrogen is also preserved.

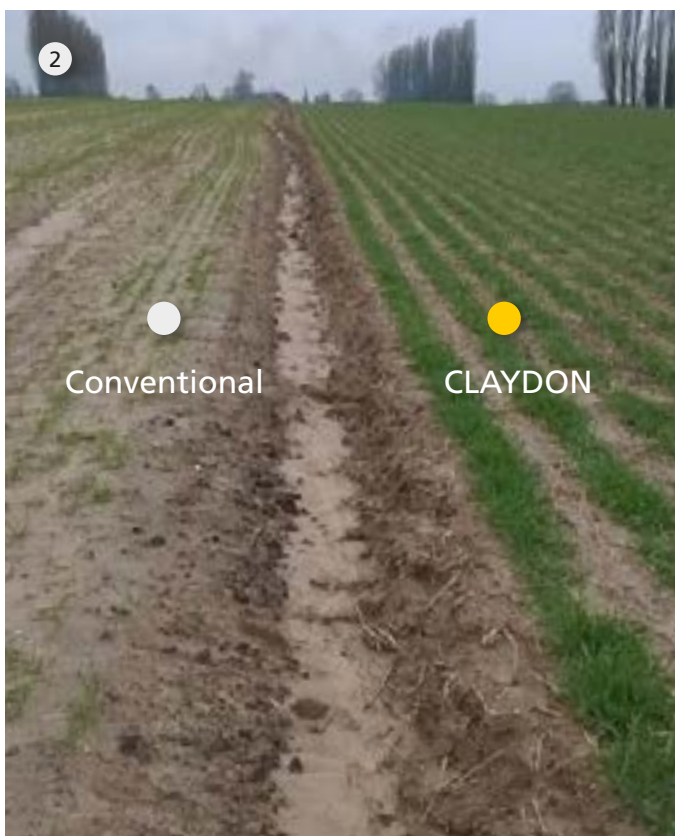


CLAYDON LEADING TINE TECH SIMPLY SO MANY BENEFITS

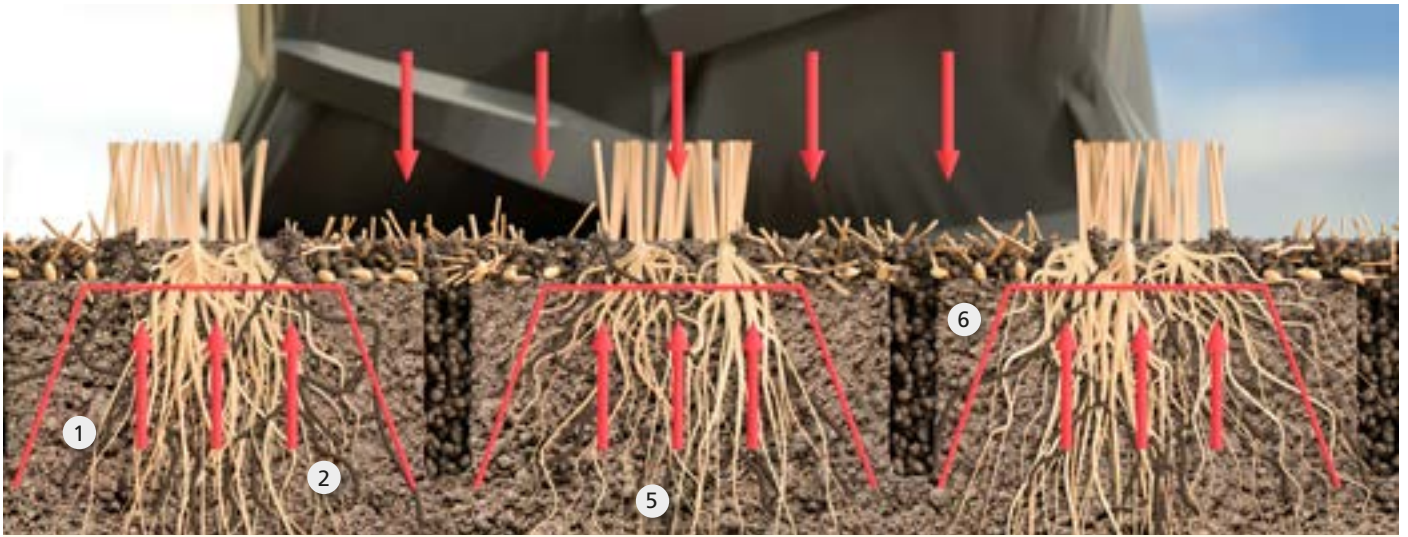


1. Friable tilth allows fast, strong rooting. Roots can quickly harvest nutrients and moisture.
2. Emergence is unhindered due to excellent soil structure. The soil can absorb heavy rainfall without capping.
3. Early vigour is ensured providing strong establishment.
4. The seed is sown in bands so crops utilise more of the growing area, maximising their moisture and nutrient take-up.

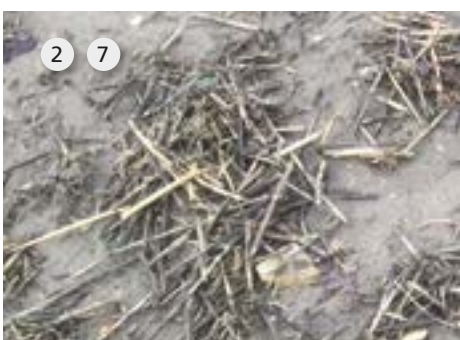
5. The seed is spread across the working area of the seeding share, allowing more air and light into the crop improving photosynthesis as the plant grows.
6. Stubble helps keep snow in place and settled on the seeded area. This helps insulate the crop. As temperature rises snow melts and drains easily through the soil profile. This area warms quicker due to the darker colour of the soil.



NOLOGY –



- 1. Targeted cultivation ensures soil density is retained over at least 50% of the field. This supports following field traffic.
- 2. Roots and worm burrows are left undisturbed providing drainage and aeration.
- 3. Tramline depths are kept to a minimum.
- 4. Fields are left level due to the design of the Hybrid drill.
- 5. Soil density is consistent over large areas of the soil.
- 6. Capillaries are left intact facilitating water movement through the soil throughout the growing season.
- 7. Drilling in bands provides an ideal environment for worms to thrive. Their action benefits soil health in many ways.



CLAYDON HYBRID M – MOUNT

The Claydon Drill combines the best from different crop establishment methods to offer the most versatile and reliable of machines. It is the focal part of the Claydon Opti-Till® system. The Claydon Drill's leading tine breaks the soil, but only the optimum amount, enough to create a moist, aerated tilth for fast germination. It creates a drainage channel so seeds don't become waterlogged and rot. The soil is only disturbed where necessary – in the seeding and rooting strip – which encourages plants to grow strong, deep roots whilst tapping into the moisture in the undisturbed banks of soil. The Claydon Drill improves soil structure and fertility; and it does this consistently, year after year, whatever your soil type, wherever in the world you farm.

- Simple, solid design
- Highly manoeuvrable
- Minimal wearing parts
- Low horsepower and fuel use
- Quick wearing metal replacement
- Long-life tungsten carbide leading tine
- Easy calibration and intuitive controls
- Huge horizontal/vertical trash clearance
- Exact seed placement as wheels run on undisturbed ground
- Constant seed depth from stiff sprung steel seeding tines
- No capping – wheels run in front of leading tines
- Grades soils and follows contours with self-levelling chassis

DRILL TYPE		3m FERT	3m	4m	4.8m	6m
Daily output*:	(ha)	20	20	30	35	40
Minimum power requirement*:	(hp)	150	150	200	250	300
Road transport width:	(m)	3.00	3.00	2.90	2.90	3.00
Weight:	(kg)	1,920	1,890	2,600	2,840	3,500
Height:	(m)	2.45	2.75	2.75	2.75	2.75
Depth:	(m)	3.40	3.40	3.40	3.40	3.40
Hopper capacity:	(l)	2,100 seed only (50:50 seed:fert)	1,750	1,750	1,750	1,750
Seeding tines:		9	9	13	15	19
Fan:		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Artemis metering control:		Standard	Standard	Standard	Standard	Standard
Tramlining:		Standard	Standard	Standard	Standard	Standard
Variable seed rate:		Standard	Standard	Standard	Standard	Standard
GPS variable seed rate:		Optional	Optional	Optional	Optional	Optional
Pre-emergence markers:		Optional	Optional	Optional	Optional	Optional
Marker arms:		Optional	Optional	Optional	Optional	Optional
Lightboards		Standard	Standard	Standard	Standard	Standard
Front tines and 7" A shares:		Standard	Standard	Standard	Standard	Standard
Double rear toolbar:		Standard with options	Standard with options	Standard with options	Standard with options	Standard with options
Stone protection:		Optional	Optional	Optional	Optional	Optional
Micro fertiliser (Artemis driver):		Optional	Optional	Optional	Optional	Optional
Twin tine kit:		Optional	Optional	Optional	Optional	Optional
Slug pellet applicator (Artemis driver):		Optional	Optional	Optional	Optional	Optional
Blockage sensors:		Optional	Optional	Optional	Optional	Optional
Additional depth wheels:		Optional	Optional	-	-	-

*typical / suggested

ED DRILLS



3m Hybrid



4m Hybrid

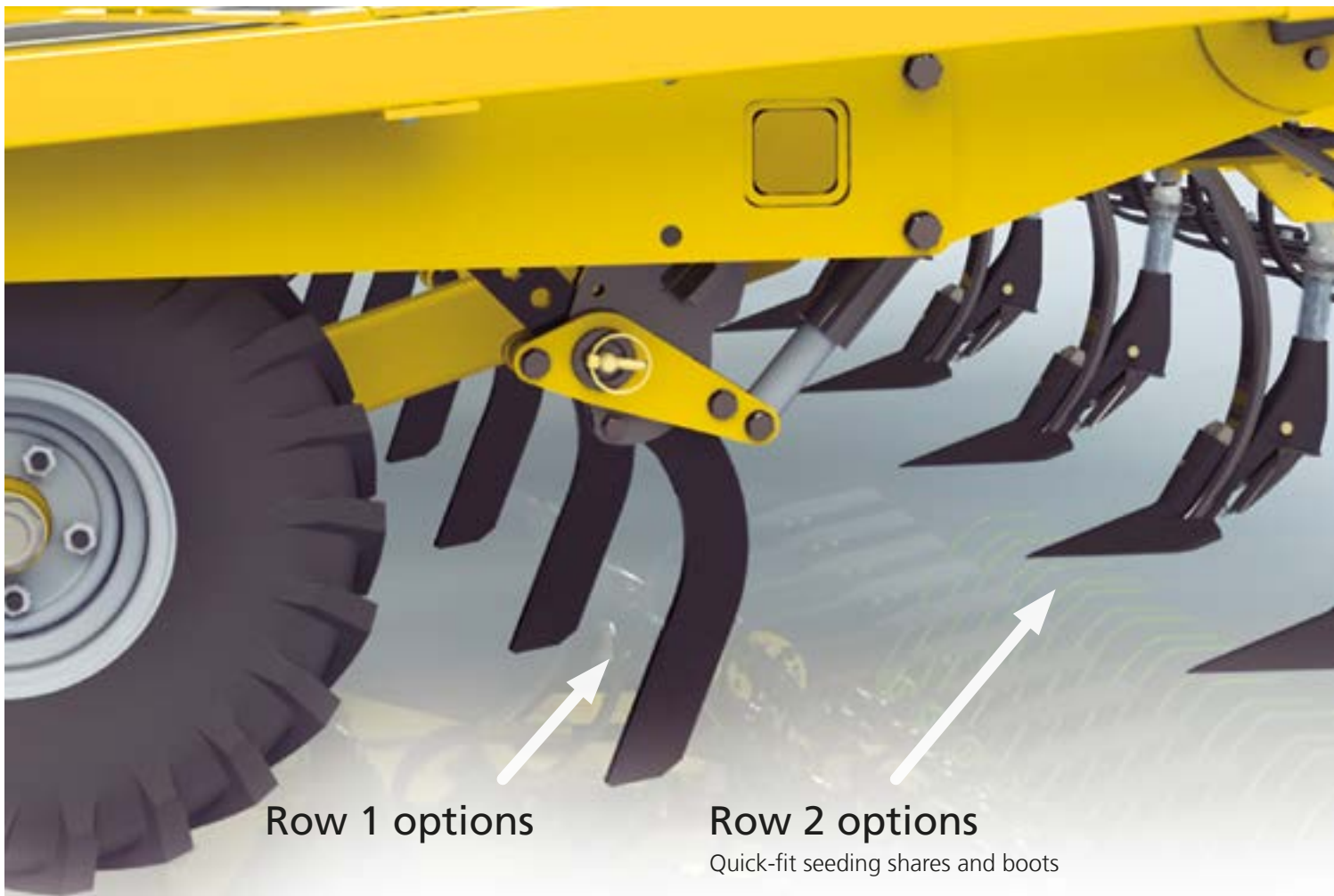


4.8m Hybrid



6m Hybrid

CLAYDON HYBRID M – MOUNT



Row 1 options

Row 2 options

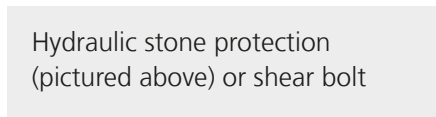
Quick-fit seeding shares and boots



Front ground-breaking
tine with tungsten
carbide facing
(standard)



Cutting disc



Hydraulic stone protection
(pictured above) or shear bolt



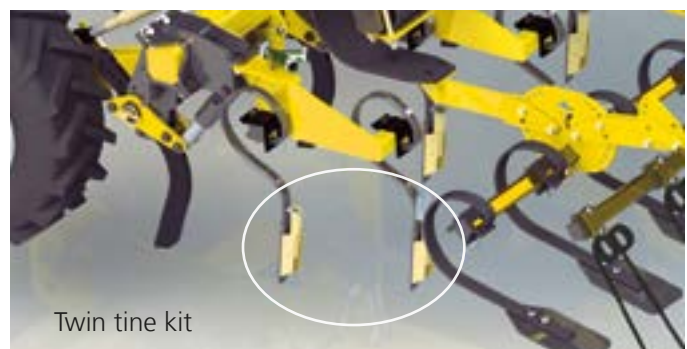
Small seeds
(oilseed rape)



Medium seeds
(cereals)

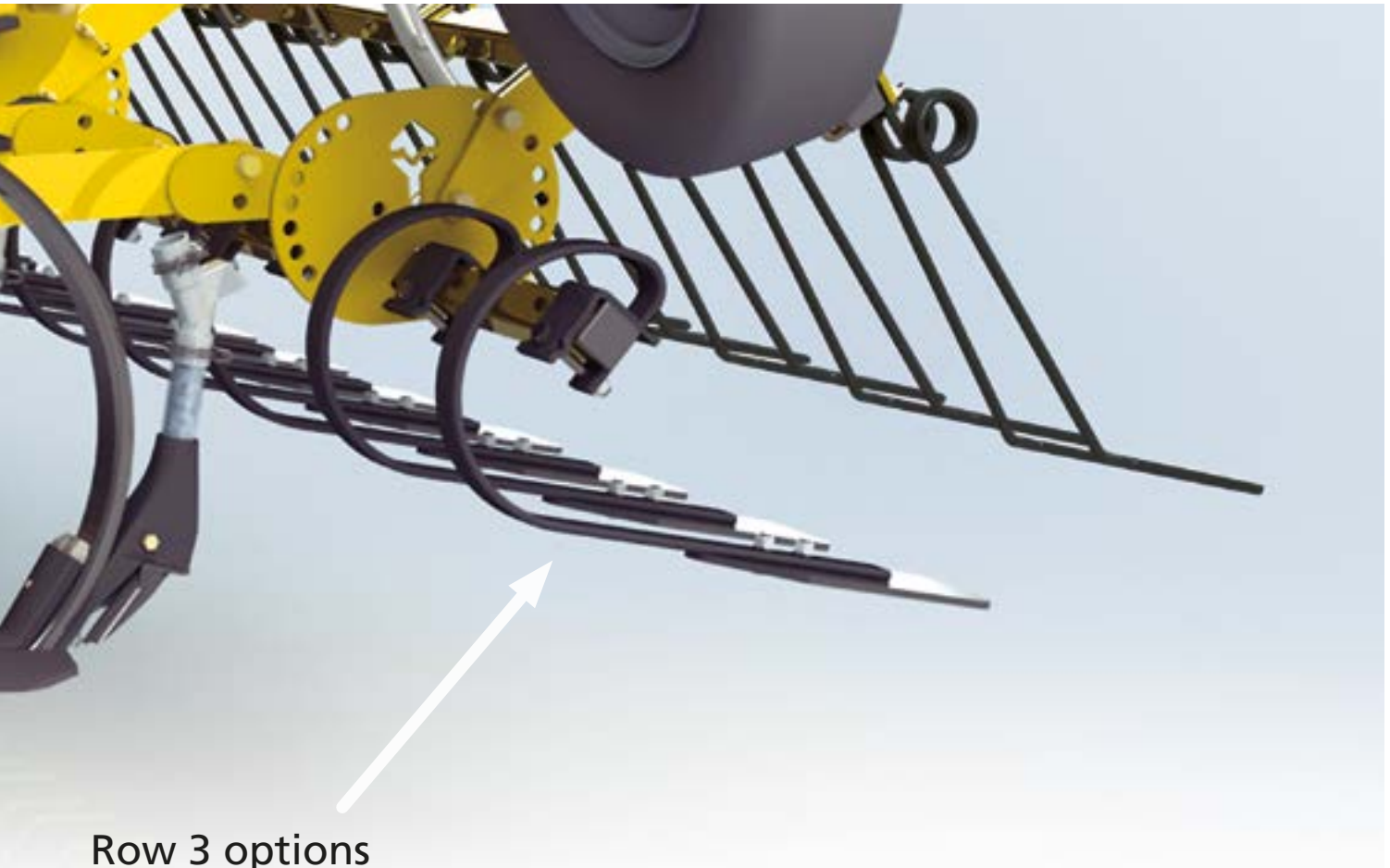


Large seeds
(pulses)



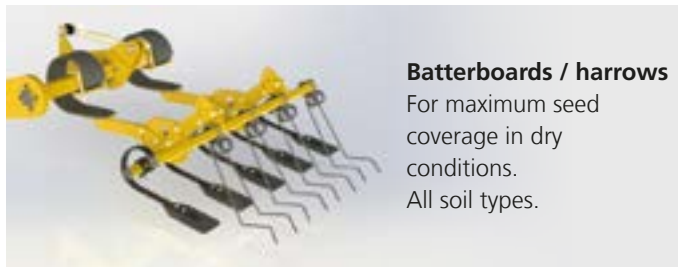
Twin tine kit

MOUNTED DRILL CONFIGURATION



Row 3 options

Levelling rear toolbar



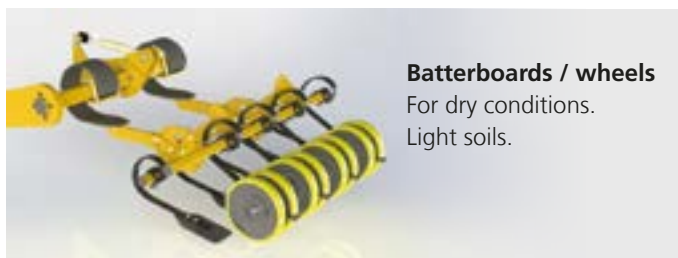
Batterboards / harrows

For maximum seed coverage in dry conditions.
All soil types.



Harrows / wheels

For dry conditions.
Light soils.



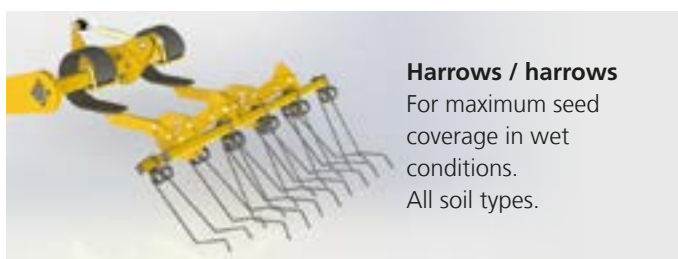
Batterboards / wheels

For dry conditions.
Light soils.



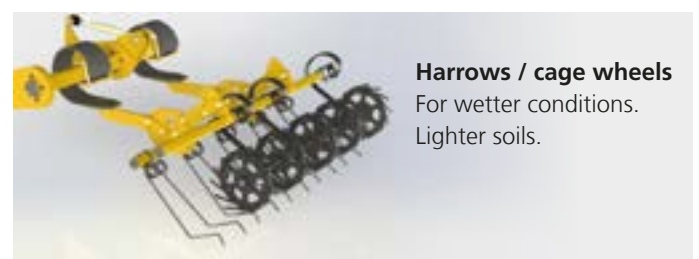
Batterboards / cage wheels

For dry conditions.
Lighter soils.



Harrows / harrows

For maximum seed coverage in wet conditions.
All soil types.



Harrows / cage wheels

For wetter conditions.
Lighter soils.

CLAYDON HYBRID T – TRAILED

Using the same leading tine technology as the mounted drills, trailed Claydon Drills have all the same benefits, while catering for the requirements of larger-scale farmers:

- Simple, solid design
- Highly manoeuvrable
- Minimal wearing parts
- Low horsepower and fuel use
- Quick wearing metal replacement
- Long-life tungsten carbide leading tine
- High grip (up to 50% weight transfer to tractor)
- Hydraulically adjustable depth control
- Easy calibration and intuitive controls
- Huge horizontal/vertical trash clearance
- Exact seed placement (wheels run on undisturbed ground)
- Constant seed depth from robust sprung seeding tines
- No capping (wheels run in front of leading tine)
- Grades soils and follows contours with self-levelling chassis
- Follows contours with centrally mounted depth wheels
- Light and smooth on headlands (lifts on depth wheels)
- Floating seeding chassis independent of hopper

DRILL TYPE		Hybrid T3	Hybrid T4	Hybrid T4.8	Hybrid T6c	Hybrid T6	Hybrid T8**
Daily output*:	(ha)		30	35	40	45	60
Minimum power requirement*:	(hp)		200	250	300	300	400
Road transport width:	(m)		2.90	2.90	2.90	2.90	2.90
Weight:	(kg)		6,000	6,200	7,957	9,185	11,185
Height:	(m)		3.20	3.30	3.33	3.80	4.35
Depth:	(m)		8.16	8.16	8.16	9.51	9.51
Hopper capacity:	(l)		3,500 seed only (60:40 seed:fert)	3,500 seed only (60:40 seed:fert)	3,500 seed only (60:40 seed:fert)	5,500 seed only (60:40 seed:fert)	5,500 seed only (60:40 seed:fert)
Seeding tines:			13	15	19	19	25
Fan:			Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Artemis metering control:			Standard	Standard	Standard	Standard	Standard
Tramlining:			Standard	Standard	Standard	Standard	Standard
Variable seed rate:			Standard	Standard	Standard	Standard	Standard
GPS variable seed rate:			Optional	Optional	Optional	Optional	Optional
Pre-emergence markers:			Optional	Optional	Optional	Optional	Optional
Marker arms:			Optional	Optional	Optional	Optional	Not available
Vision kit (work lights & cameras):			Optional	Optional	Optional	Optional	Optional
Front tines and 7" A shares:			Standard	Standard	Standard	Standard	Standard
Double rear toolbar:			Standard with options	Standard with options	Standard with options	Standard with options	Standard with options
Stone release:			Optional	Optional	Optional	Optional	Optional
Split fert/seed hopper:			Optional	Optional	Optional	Optional	Optional
Fertiliser placement with seed or below:			Optional	Optional	Optional	Optional	Optional
Front tool bar:			Standard with options	Standard with options	Standard with options	Standard with options	Standard with options
Blockage sensors:			Optional	Optional	Optional	Optional	Optional
Brakes:			Optional	Optional	Optional	Optional	Optional

Please see specifications on page 12. NB: vision kit and brakes are not available on T3. The front toolbar on the T3 has cutting discs as standard or optional press wheels.

*typical / suggested

**can also be shipped broken down, with dimensions as for T6 plus separate crate: length 4.14m x width 1.87m x height 1.86m

DRILLS



The Hybrid T3 is configured by adding a trailing kit to the mounted 3m Hybrid.



Hybrid T4



Hybrid T4.8



Hybrid T6c



Hybrid T6



Hybrid T8

CLAYDON HYBRID T – TRAILED



Row 1 options

Row 2 options

Row 3 options

Quick-fit seeding shares and boots



Shouldered discs (standard)



Front ground-breaking tine with tungsten carbide facing (standard)



Front press wheels



Hydraulic stone protection (pictured above) or shear bolt



Small seeds (oilseed rape)

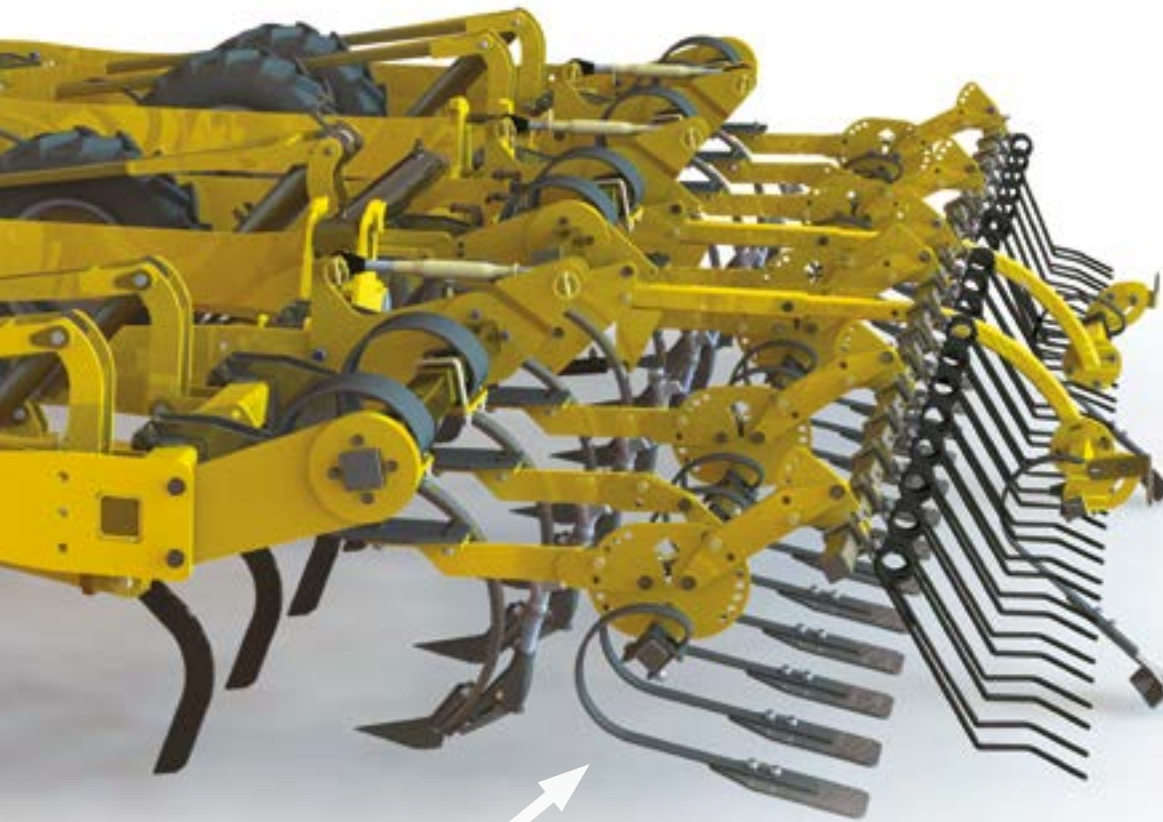


Medium seeds (cereals)




Large seeds (pulses)

DRILLS CONFIGURATION



Row 4 options


Levelling rear toolbar



Batterboards / harrows
For maximum seed coverage in dry conditions.
All soil types.



Harrows / wheels
For dry conditions.
Light soils.




Batterboards / wheels
For dry conditions.
Light soils.



Batterboards / cage wheels
For dry conditions.
Lighter soils.



Harrows / harrows
For maximum seed coverage in wet conditions.
All soil types.



Harrows / cage wheels
For wetter conditions.
Lighter soils.

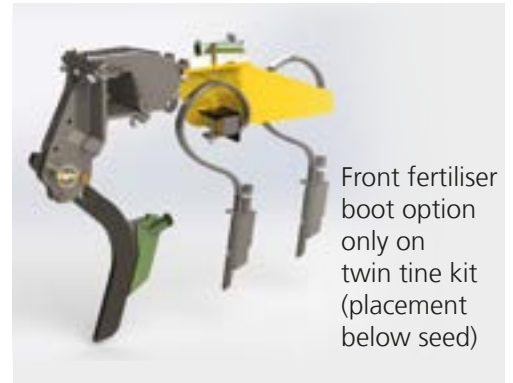
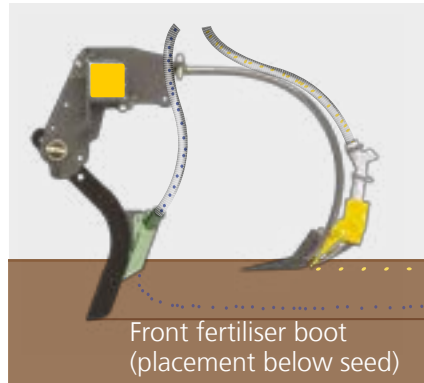
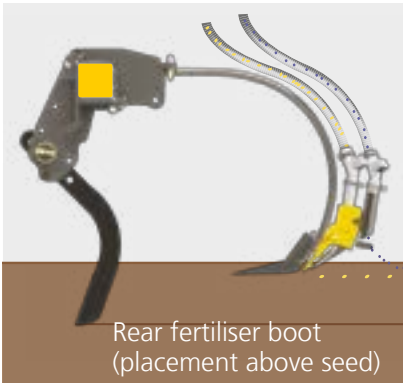
CLAYDON TARGETED FERTILISER

Integrated fertiliser options

Claydon Hybrid fertiliser technology is offered as a complete unit in the 3m mounted and 3-8m trailed machines.



Placement options for integrated fertiliser



Micro fertiliser and slug peller tanks



A microfert tank can be fitted to the rear of any mounted Hybrid drill.

- Stocks Fanjet 65 litre
- electronically driven
- rotary feed
- spinning disc
- variable rates of application on the move
- fertiliser delivered with seed

A slug peller can also be fitted to the rear of any mounted Hybrid drill.

- Stocks Fanjet 65 litre
- electronically driven
- rotary feed
- spinning disc
- variable rates of application on the move

CONTROL BOX FOR DRILLS



Claydon Hybrid drills are fitted with an easy-to-use, intuitive control box with an ISOCAN / ISOBUS terminal fitted as standard.

RDS Artemis control box

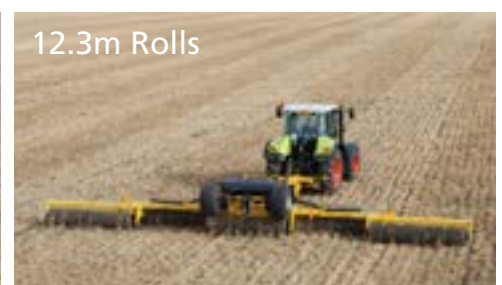
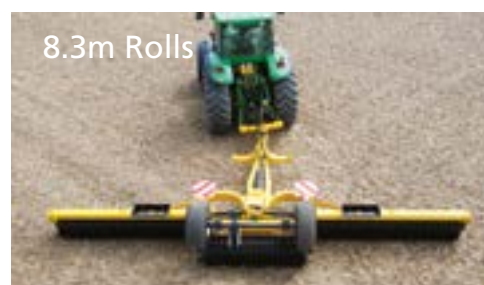
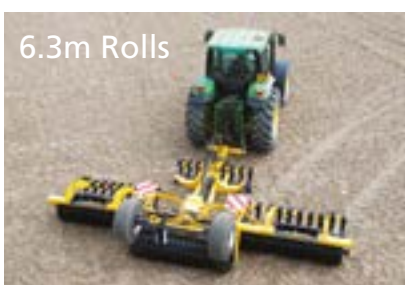
- 4 channels (controlling seed, granular fertiliser, micro granular fertiliser, slug pelleter)
- ISOBUS compatible
- integrated blockage sensors (available)
- touch screen control
- fully programmable
- + / – seed rates on the move
- radar/GPS-driven
- electric drive
- easy calibration

CLAYDON ROLLS

Thorough soil consolidation in the seeding zone is required to achieve effective crop establishment. A well-timed pass with a heavy set of Cambridge Rolls not only improves 'soil to seed' contact, it also helps to retain moisture, reduce erosion, improve chemical spray contact and decrease slug activities. This gives crops an uncompromised start. Machine set-up is simple and is done from the tractor seat. The load transfer system ensures the rolls deliver uniform consolidation across the whole working width of the machine.

Model		6.3m	8.3m	12.3m
Output per hour*:	(ha)	3.75	5	7.5
Horsepower*:	(hp)	90	110	140
Forward speed*:	(km/h)	7	7	7
Transport width:	(m)	2.42	2.50	2.95
Weight:	(kg/m)	714	601	683
Weight:	(kg)	4,500	4,990	8,400
Axle diameter:	(mm)	60	60	60
Ring diameter:	(mm)	600	600	600
Breaker rings:		Standard	Standard	Standard
Brakes (hydraulic or air):		Optional	Optional	Optional
Levelling boards:		Optional	Optional	N/A
LED lights/warning plates:		Standard	Standard	Standard
Stone box:		Optional	Optional	Optional
Tractor connection:		2-point linkage	2-point linkage	2-point linkage or pick-up

*typical / suggested



6 REASONS TO BUY CLAYDON

1. Reduce costs

Claydon Opti-Till® minimises the number of passes you need to establish crops, dramatically reducing your costs and saving you time. Wearing and moving parts are minimal so costs can be kept low.

2. Maximise yields

The Claydon front tine stimulates soil only where required, in the seeding and rooting zone. It creates a fine tilth and encourages roots to grow deep and strong. Plants take up moisture which is conserved in the unmoved soil. Crops are healthy and thrive on increased soil organic matter and improved soil structure.

3. Improve soil structure

The Claydon front tine moves soil only in the seeding and rooting area to drain water away from the seed and loosen compacted ground. The soil in unseeded rows is left intact, making it strong and able to support machinery throughout the year.

4. Increase soil fertility

Residue from previous crops decomposes into nutrient-rich organic matter. Worms break down the organic matter and produce casts which are also rich in nutrients.

5. Benefit the environment

Carbon is kept in the soil, increasing soil organic matter. Soil erosion, water run-off and chemical leaching reduces. Worm and bird populations thrive. Opti-Till® is used by organic farmers as a mechanical method of controlling weeds.

6. It's the most versatile crop establishment option on the market

No matter what the soil type, no matter where the farm, Claydon is now achieving fantastic results for farmers in over 30 countries across the world.



BY FARMERS FOR FARMERS



“Our primary focus is producing high yielding crops at the lowest possible establishment cost.”

Jeff Claydon
Farmer and CEO

In 2002, when grain prices fell to levels which made production uneconomic, Suffolk farmer Jeff Claydon was forced to challenge long-established ways of producing crops. Unable to buy the machine he needed, Jeff developed the Claydon Drill.

This leading tine drill makes it much more cost-effective, faster and reliable to establish crops directly into stubble, min-tilled or fully-cultivated soils.

Each year the Claydon family establish 400ha of combinable crops on their own heavy-land farm. They use a 6m Claydon Hybrid drill pulled by a 300hp tractor which clocks just 100 hours to cover the area. With everything in the ground in good time, the spare capacity allows them to drill another 1,250ha on contract.

Since inception, Claydon have added stubble and weed management machines and rolls to the product range to provide the optimum crop establishment system – called Opti-Till®. Opti-Till® creates the optimum amount of tillage for optimum soil and crop health. It has the added benefit of dramatically reducing input costs and the time taken to establish crops.

What makes Claydon products unique is the fact that they are developed on a working farm, by a working farmer. Proven on farms in over 30 countries worldwide, working on all types of soil and in all conditions, Claydon Opti-Till® is sustainable farming for the future.

Visit our website for more details on products and customer testimonials:



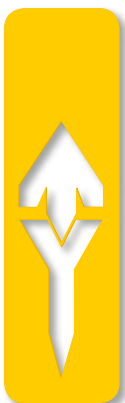
www.claydondrill.com



The Claydon factory at the family's 400 ha farm



Our dealer and agency network spans across the whole of Europe. For demonstrations, quotations and after-sales service, please visit our website to find your nearest Claydon dealer: www.claydondrill.com/dealers



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E&OE cld474 02/19