

MICHAEL GRAY

MOAT HALL FARM



**MOAT HALL FARM**  
Parham, nr Woodbridge  
SUFFOLK

- 2000 Acres
- Wheat
- Oilseed Rape
- Winter Barley

## One man does the lot

Simba's Solo ST cultivator is living up to its name by reducing crop establishment costs on the 2,000 acres the Gray family farm in Suffolk to a 'one man job'.

Brothers Michael and Robin bought the Solo 330ST to replace the plough over much of their acreage, and instantly saw reductions in both the time and cost of seedbed preparation.

They own 500 acres at Moat Hall Farm, Parham, near Woodbridge, and contract farm a further 1,500, with cropping including 950 acres of wheat, 400 acres of oilseeds and 150 acres of winter barley, with land being let for potato and sugar beet production and their grassland supporting a beef suckler herd, finishing unit and flock of sheep.

Michael says the Solo ST has transformed cultivations and drilling into a 'one man job': "We used to be totally plough based, but last year we used the Solo ST for the first time and we are very pleased with the job it did. I reckon it might have saved £20/acre in terms of reduced time and fuel usage and made everyone's life a lot easier."

"Previously we would have ploughed, sometimes used a press and then power harrowed and drilled. In some seasons and conditions we needed to do more than one pass with the power harrow."



The Solo has now replaced the plough

"The Solo ST has cut at least one pass out of that system. Now we Solo, leave the seedbed to green up and spray it off, and then drill. We have some 1,500 acres to cover in the autumn. We are still busy, but it now takes about 30 days to do the lot".

When ploughing and power harrowing he reckons their daily output was only 25 to 30 acres a day, with further cultivation passes likely to be needed, whereas the Solo can cover between 40 and 50 acres/day, with no further work required:

"It is all left ready to drill. It has helped us make a huge saving on inputs, especially fuel, which is valuable considering the price of it now!", says Michael.

"We run it tight behind the combine and leave the seedbed for as long as possible to 'green up' so we get as good a kill of Black-grass as we can. This also gives the heavier soils the maximum time to weather down."

"It certainly helped hold onto the available moisture last season, whereas in a wet season it would make the difference between getting drilled up and not. The seedbed is also much more level which helped improve drilling speed, and also both spraying speed and accuracy".



The Grays now use less time and fuel when cultivating

"...I reckon it might have saved £20/acre in terms of reduced time and fuel usage and made everyone's life a lot easier..."

JOHNNY EDWARDS

COLDHARBOUR FARM



**COLDHARBOUR FARM**  
Crowmarsh, nr Wallingford,  
OXFORDSHIRE

- 1150 Acres
- Winter Wheat
- Winter Barley
- Oilseed Rape
- Spring Barley

## Step up to a Solo

Switching from an entirely plough based cultivation to a 'one pass' machine is a big step, which father and son Christopher and Johnny Edwards almost managed to make in one season last autumn.

Sadly they weakened just temporarily, and they ploughed a couple of fields. Now they wish they hadn't: "We only ploughed two fields last year, and they are the worst looking ones this year!", admits Johnny.

Happily the economics and the work rate of the Solo ST also look a lot better than the plough so it is now firmly established as the central element of their crop establishment system for the future.



Good daily output is a major asset of the Solo

They run 1,150 acres at Coldharbour Farm, Crowmarsh, near Wallingford, Oxfordshire, growing winter wheat and winter barley alongside spring barley, beans and oilseed rape, with much of the barley grain and straw being kept for a large outdoor pig enterprise.

Their previous cultivation system started with the plough, pressing and then working the seedbed down with a tined cultivator before establishing the crop with a cultivator drill:

"It was a bit of an old fashioned system which had not really changed for some years. The plough remained the primary cultivator for so long because we have a lot of pig muck to incorporate ahead of drilling spring barley, although the advantage is that the crop generally needed no further fertiliser", Johnny says.

"We are now looking at cutting our costs like anyone else. Several of our neighbours ran Solos with great success for a number of years and it seemed to work well for them".

They examined several other 'one-pass' machines and the Solo 380ST was chosen because they felt an ST model was best suited to their needs, especially for their shallow soils:

"We only used to plough to between five and six inches on some of them, so we could set the legs to around seven inches to remove any plough pan, but without pulling up any flints or stones from deeper in the profile, but we still have the option of dropping the legs in deeper on our other soils if required".

With the pig unit due to close at the end of the year, that imperative is removed, so the Solo ST will be working everything in the future. It certainly has the capacity, says Johnny, who says it can cover 100 acres a day.

It is a very simple machine to operate, says tractor driver Dave Clark: "It is very easy to work in the field. There is nothing complicated about it. It is very easy to set the discs to the desired working depth. Once you have got it set you should aim to maintain a constant working speed and it will leave a very even and level seedbed".



Johnny Edwards with his father

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CASE STUDIES

## SOLO ST 330, 380 & 450



The SOLO was first introduced in 1999 and allowed farmers to combine four operations, into one pass.

The introduction of the Solo STs in 2005 saw a radical change in the machine design, so much so that a name change was considered by SIMBA as it was completely different to the original Solo. Here 4 farmers from all over the country give their views on the Solo ST.



www.simba.co.uk



Simba International Ltd, Woodbridge Road, Sleaford, Lincolnshire. NG34 7EW. England  
Tel: 01529 304654 • Website: www.simba.co.uk  
Email: simba.international@simba.co.uk • Fax: 01529 413468

PROFIT THROUGH INNOVATION



Solo 380 ST working on stubble

Solo ST cultivators meet the needs of modern arable farming for a highly effective, one-pass cultivator that can transform stubble into a seedbed, with drainage restored, and leave a level, fine finish which is often suitable for drilling. All this is achieved with the added benefit of a significant reduction in draught.

They feature two gangs of discs, between which are set the fully adjustable loosening legs that can be set to remove compaction below the seedbed depth (typically between 15 and 25 cm).

While the original Solos excel in heavier soils and situations where deeper loosening is required, the ST range is rapidly becoming the one-pass machine of choice on lighter and shallower soils. In addition the ST range is appropriate on heavier soils following 3-5 seasons of reduced cultivations when organic matter has been incorporated.

The Solo ST features a revised tool bar, fitted with a larger number of low draught Simba Horsch TerraGrip legs with a trip force of around half a tonne. Six depth settings and a choice of knock on points enable the cultivation effect to be matched to the soil type and condition.

Wide sweeps, for example, ensure that all the soil profile is moved even at shallow depth. You therefore have a very versatile machine capable of working effectively at a variety of depths.

Disc spacings of 25cms (10") are the same on the front and rear gangs which helps leave a fine, level finish. A Simba DD rear roller with an optional following harrow means that the finer finish can be tailored to individual

requirements. A finer finish for immediate drilling or a corrugated finish (with the following harrow raised for a weather proof finish) are both possible. Matched disc spacings also ensure that a level finish is achieved irrespective of forward speed, making the Solo ST an easy tool to field set.

Many purchasers have mounted rape applicators on the rear of the machine and successfully broadcast rape onto the seedbed behind of the final roller to achieve a highly cost effective establishment system.



When comparing different types of one pass cultivators, it is vital that the machine retains a distinction between surface cultivations via disc (mix, chop, incorporate 10-15cms) and sub surface loosening (down to 25cms) via tines. In doing this you avoid bringing clods and or stones from the sub surface onto the surface which destroys the quality of seedbed as much of the fines are inverted to depth. Highly aggressive tines working deep will make this unavoidable, and as a result consolidation will be poor behind this type of machine (as shown in the picture) when compared to a DD finish on the left hand side.



Power requirements of the Solo ST are significantly less than the original Solos, opening up a 170 hp market.

The revised power requirements are:

330ST (3.3m, 7 tines)	170-200 hp
380ST (3.8m, 9 tines)	220-250 hp
450ST (4.5m, 11 tines)	270-320 hp
600ST (6m, 15 tines)	400 hp +

The smaller Solo ST's (330/380) have the option of a rear drawbar so that following presses can be fitted if required. This again increases the flexibility and versatility of the machine and this gives the users the option of leaving an open seedbed (without the press) suitable for over wintering or a finer finish (with a press) suitable for immediate drilling.

## COLIN MCGREGOR

COLDSTREAM MAINS



Coldstream Mains,  
COLDSTREAM

- 4,000+ Acres
- Winter wheat
- Winter/spring barley
- Oilseed Rape
- Vining Peas
- Potatoes

“...the fact that it produced a well-cultivated, well-consolidated seedbed in just one pass was really important as it helped conserve moisture...”

## Solo, alone in ‘measuring up’

Colin McGregor admits he set machinery suppliers a tough task when he was looking for a new cultivator for the 4,000 plus acres he farms from Coldstream Mains, Coldstream on the English/Scottish border.

His soils run from light, gravelly sand right through to heavy clay types. Yet in the Simba Solo ST he feels he has found a machine that meets his needs, with the additional benefit that it works in both wet and dry conditions which is so important in the Borders.

He now uses a Solo 450ST as the primary cultivator, which enables him to cover up to 100 acres a day, a useful increase on the 70 acres a day that his previous 330 model could cover – and enables him to run a very ‘slimline’ system: “One operator and tractor now does all the cultivating and drilling. The Solo ST is the main tool, but we still plough a limited acreage within the rotation.



The DD Ring ensures a very effective consolidation

“We originally adopted reduced cultivations to save money and time. This land benefits from being worked with a tine to aid drainage and we previously used discs and a Flatliner to do the job, so the Solo was a logical investment. Several friends who farm in the South used them and it fits into our system very well.

For the past two years they have fitted a Variocast system to the Solo. Last year it helped achieve average yields of 33cwt/acre, below the 40 cwt/acre they aim for, but in a year when many yields dipped to 30cwt/acre locally, one with which they were happy.



The McGregor's Solo at work

His first Solo was a conventional 330 model, which proved its worth in the dry conditions of autumn 2003, and was also totally at home in 2004 when things turned wet after harvest and posed a very different test:

“In 2003 the fact that it produced a well-cultivated, well-consolidated seedbed in just one pass was really important as it helped conserve moisture. In 2004 just cultivating the land once rather than more often was a huge benefit and avoided causing compaction and other problems”.

“This year’s crops all look well”, he says, and they include 500 acres of oilseeds sown using the broadcaster, a further 350 acres of oilseeds sown with a drill after the Solo, and also some 250 acres of cover crops sown on set aside with the Variocast on the Solo ST.



Broadcasting oilseeds is working well

## TOM MORRELL & RICHARD SMITH

DANUM FARMING



DANUM FARMING  
High Melton, Nr. Doncaster  
SOUTH YORKSHIRE

- 2,200 Acres
- Winter Wheat
- Oilseed Rape
- Sugar Beet
- Potatoes/Peas

“...we can drop the ST in deeper where soils allow, but pull them right up to disc level where we do not need that deeper cultivation...”



Simba Solo 380 ST

## Robust kit with high output

Many farmers working medium acreages are combining forces with neighbours to achieve economies of scale, and such a move is paying off for neighbours Tom Morrell and Richard Smith, who now run their 2,200 acres near Doncaster under the name Danum Farming.

Crucially the move has enabled them to move from plough based cultivations towards reduced cultivations, with a Solo 380ST replacing the plough as their primary cultivator last autumn.

Tom had already used Simba discs on his farm, so was aware of the company’s reputation for building robust kit with high output, and they chose the Solo ST because they felt it would be best suited to the thin soils overlying limestone found on both farms:

“Our soils vary from heavy clays through to lighter types overlying limestone. Topsoils can be anything from a metre to just six inches deep. If you work too deep on the thinner parts all you do is bring up stones”, he says.

“We chose the Solo ST because we felt it would enable us to cultivate this range of soils effectively, with the advantage that we can drop the ST in deeper where soils allow, but pull them right up to disc level where we do not need that deeper cultivation”.



Auto-reset Solo ST tines

“The break-back function means that we can use it on stony soils, whereas if we use a machine with shear-bolt protected legs we would spend a lot of time off the tractor replacing them”.

Richard confirms this view: “If we work too deep on my soils especially with an aggressive tine we would just bring up a boat load of stones. You can still un-earth a good number if you are working relatively shallow, but no where near as many”.

As a result of the switch the partners now run both farms with just two employees, despite a rotation which includes winter wheat and oilseed rape, along with peas, potatoes and sugar beet.

The plough will continue to have an important place on the farm because of these root crops, but the Solo ST established itself as the main primary cultivator in its first season last autumn, when it covered 1,200 acres. He expects it to do progressively more in the future:

“We started it off on barley stubbles and it did an excellent job. In the future it will usually start by working land coming out of set-aside in late July, and then move onto oilseed rape stubbles. It is now paired with a Simba Horsch CO6 drill in what the pair hope will be a three pass system, Solo ST, sprayer to clear up re-growth and volunteers and drill.