



HARVESTERS
PRODUCT BROCHURE

PATRIOT RT 1700/B

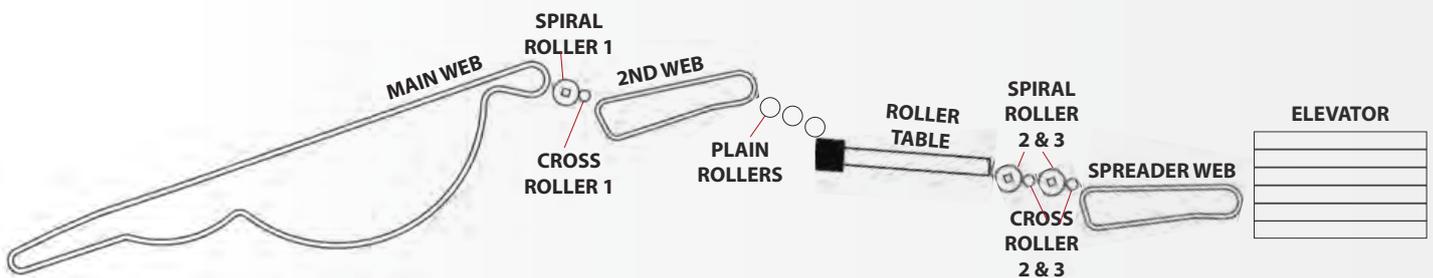
HARVESTER

ABOUT

The ScanStone Patriot RT 1700 is the largest harvester in the Patriot range. This machine comes with two webs, dahlman cleaning and segmented cross rollers as standard. It can be fitted with land drive and a two man picking table. The main part of the chassis is larger than other models in the range and it has an underslung axle which offers tremendous strength for the weight and capacity of the machine. This machine is designed to work effectively in all conditions, and in all varieties of crop.

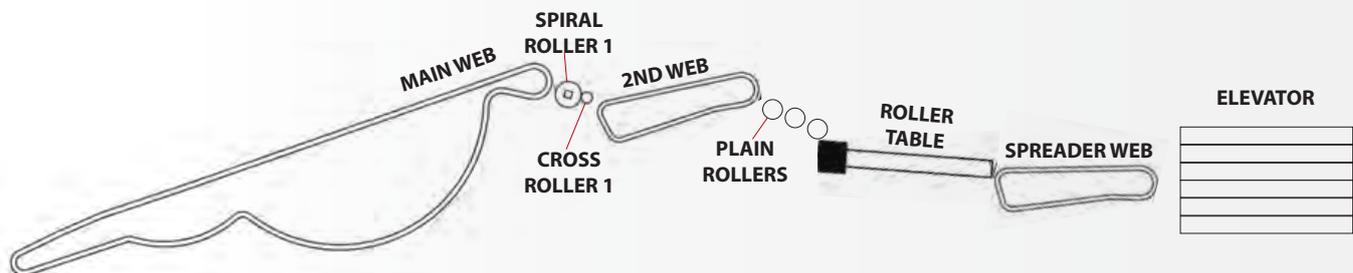
BASE PRICE

Patriot RT1700



BASE PRICE

Patriot RT1700B





8-9T



150-220 hp



3.2 m



1.8-2 m



BED MAKERS

BED TILLERS

DESTONERS

TOPPERS

WINDROWERS

HARVESTERS

STANDARD EQUIPMENT



PRESSURE SENSING DIABLOS

The ScanStone Patriot RT comes with the pressure sensing diablo. The machine comes with full or half diablo for different soil conditions and potato varieties. The diablo is completely adjustable across various row widths and assist with the feed in of the crop into the machine. They also are used to control the depth of the share, to minimise any cut potatoes.



DEPTH WHEELS

Positioned above the top of the row, the depth wheels are effective in heavy conditions where the soil does not need so much assistance into the front of the machine. Depth wheels have no compaction of the row at all, and are also used for controlling the depth of the share.



CLEANING ROLLERS

The cleaning rollers within the Patriot RT harvester are situated after the Dahlman table. There are two pairs of extraction rollers which can be rubber or steel, and they are used to finally clean the crop before presenting it onto the picking table or into the cart elevator. Each plain roller has a direct drive, so speed and direction adjustment can be done inside the tractor cab. The extraction rollers can also be adjusted to and from the spiral rollers. This is manual adjustment out-with the tractor controls.

RT1700 RT1700B



DAHLMAN ROLLER TABLE

The Patriot RT comes standard with a Dahlman cleaning table. This alternates between plain and spiral rollers and has an independent pump to power it. The angle of the Dahlman cleaning table is 0-7 degrees, which gives an excellent run off of the crop in dry conditions.



SECOND WEB

The second web is shorter than the main web on the ScanStone Patriot RT and is 4 band. It is driven by rubber drive shoes, and is driven mechanically from the main drive of the machine with rubber drives. The pitches come in 28, 32, 36, 40, 43, 45 and 50mm depending on soil conditions.



WHEEL DRIVE READY AXLE

This is an underslung axle which has two independent steering rams and runs straight through the lower chassis of the machine. This axle has space at the hubs for wheel drive should this be required.



ON BOARD HYDRAULICS

The machine is equipped with on board hydraulics and an on-board oil tank which powers the cleaning rollers.

STANDARD EQUIPMENT



ADJUSTABLE CENTRE SHARE

The centre share can be adjusted or completely removed depending on the variety of crop. The centre share can be pitched in to ensure that all potatoes are being harvested. This is done on the side of the machine with easy manual adjustment.



FRONT WEB ROCKER AGITATOR

Driven from the tractor hydraulics and adjusted from the tractor cab, the front web has a rocker agitator powered by a hydraulic motor. It gently throws the front web up and down to assist with soil separation.



HIGH FREQUENCY AGITATOR

This is a nest of rubber rollers which can be switched on or switched off to create a high frequency agitation.



2ND WEB KNOCK ROLLER AGITATOR

This is one triangular shaped rubber roller which can be manually switched on or off to assist with soil separation, out-with the tractor controls.



HYDRAULICALLY CONTROLLED SPREADER WEB

The spreader web evenly distributes the crop into the cart elevator. Looking from the back, the longer web is on the left hand side so there is not clashing of crop as the elevator conveys the crop to the right.



POSITIVE UNDERWEB DRIVE

The main web drive is primarily drum drive with rubber drive shoes. The positive underweb drive is an additional steel sprocket drive which completely eliminates web slip, in wet weather conditions.



CARBON FIBRE BELT DRIVE

There are no chains on any ScanStone products including the Patriot RT. We have superseded chains throughout the whole machine with carbon fibre tooth belt drive. This means quiet running and maintenance free.



8-9T



150-220 hp



3.2 m



1.8-2 m



LANE ADJUSTER RAM

When working on side hills, or when fine adjustment is needed to the front of the machine, the lane adjuster ram is very effective and can be operated from the tractor cab, to make sure that all potatoes are being harvested and no potatoes are being left or cut.



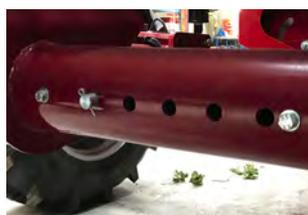
INDEPENDENT FLOATING END

The back of the Patriot RT will always remain level, whereas the front digger share will always float to maintain the contour of the ground. This means the left side or the right side of the share is always at the correct depth independently.



28" LAND WHEEL

As standard and sufficient to carry the machine through the soft ground. The under-wheel is 22.5" and wide to carry the machine as well through the soft beds.



VARIABLE TRACK WIDTH

Several track width options available from 68"-80" to suit user requirements and crop varieties.



SPRING LOADED INTAKE DISCS

Spring loaded intake discs follow the ground's contour to ensure a consistent feed into the machine. They protect the front of the machine should there be any stones where the discs are running, and ensure that the disc arms do not bend or break.



TRANSFER WEB CAMERA

The transfer web camera allows the operator to see exactly what the cleaning rollers are doing, so blockages can be either avoided or dealt with in good time.



LARGE CAPACITY CART ELEVATOR

A complete PVC canvas, with active crop fingers to help the crop stay in the elevator, conveys the crop up out of the machine and into the trailer. The elevator tucks back neatly for transport and folds out and down for discharging into the bottom of bulk trailers or potato boxes. The easily controlled gooseneck part of the elevator gives precision control when discharging. The drive motor and cog wheels are internal of the canvas to protect them from damage.

The elevator width is 1m.

BED MAKERS

BED TILLERS

DESTONERS

TOPPERS

WINDROWERS

HARVESTERS

OPTIONS



ADDITIONAL CAMERA

To give the operator a better vision of sight as to where the potatoes are going and to prevent any blockages.



MAIN WEB CLEANER

A cage roller can be fitted in place of the main web tensioner rollers to maintain the web pitch in sticky and wet conditions. Web pitches, as standard, 28, 32, 36, 40, 43, 45 and 50.



LAND DRIVE SYSTEM

The Patriot RT 1700 can be equipped with land drive motors to assist in wet and arduous conditions. This is powered through an additional pump, not through the tractor. This is controlled from the tractor cab.



SPOON HITCH

The 110mm Scharmuller spoon hitch improves comfort and safety when travelling both on the road and during work.



EASY GREASE SYSTEM

Grease banks are located throughout the machine to make maintenance user friendly. This makes the grease nipples accessible so bearings with grease points in awkward places can be greased easily.



SEGMENTED SPIRAL ROLLERS

There are various different types of spiral rollers which can be fitted into the cleaning rollers on the Patriot RT. There are 6mm pitch spirals, 10mm and 20mm, depending on soil and crop conditions. Each spiral has individual air pockets between the ribs. This allows self cleaning and also flexibility for when large pieces of clod or haulm need to pass through. All the spiral rollers interlock into each other and there are 10 per shaft.



EXTRACTION ROLLERS

Extraction rollers come in 65mm and either rubber or steel.



8-9T



150-220 hp



3.2 m



1.8-2 m



BED MAKERS

BED TILLERS

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HARVESTERS



TWO MAN PICKING TABLE

A rubber covered flighted web elevates the potatoes onto the picking facility. There is a trash can either side for pickers to throw away waste and an e-stop button should any danger occur. The picking table return web protects the crop because it has a spreader web and a low drop.



RESTRICTED ON-BOARD CONTROLS

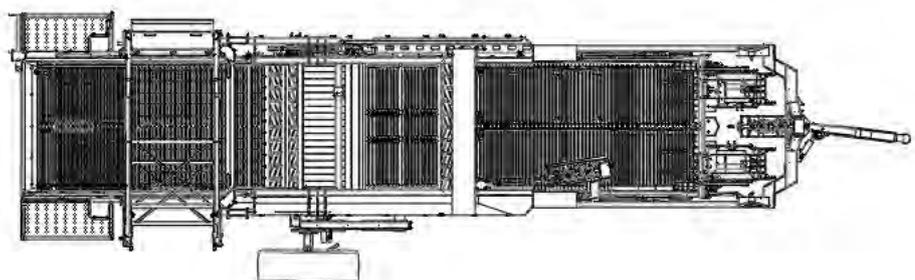
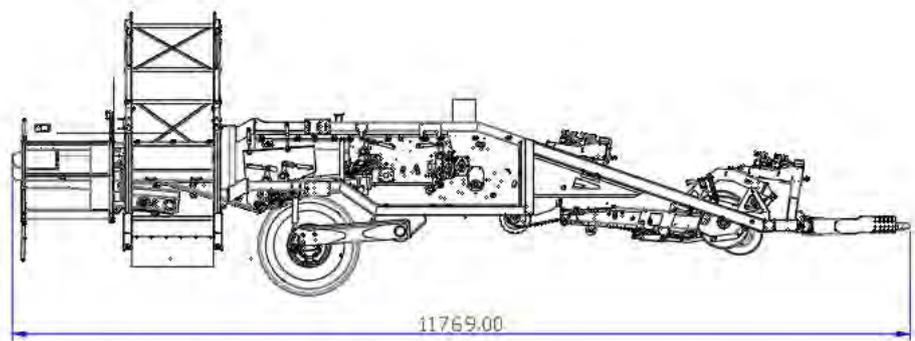
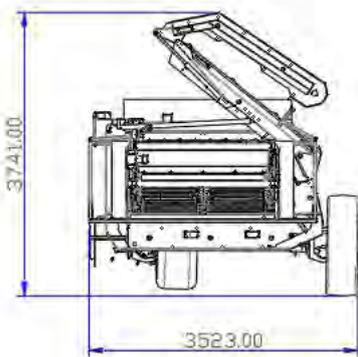
When in unlocked mode, persons on the picking table of the harvester can set various options of the machine, such as picking table belt speed, elevator speed and roller speeds from the machine. This is easily disabled by a single button from inside the cab once the machine is set.



SOFT BUT DURABLE PINTLES

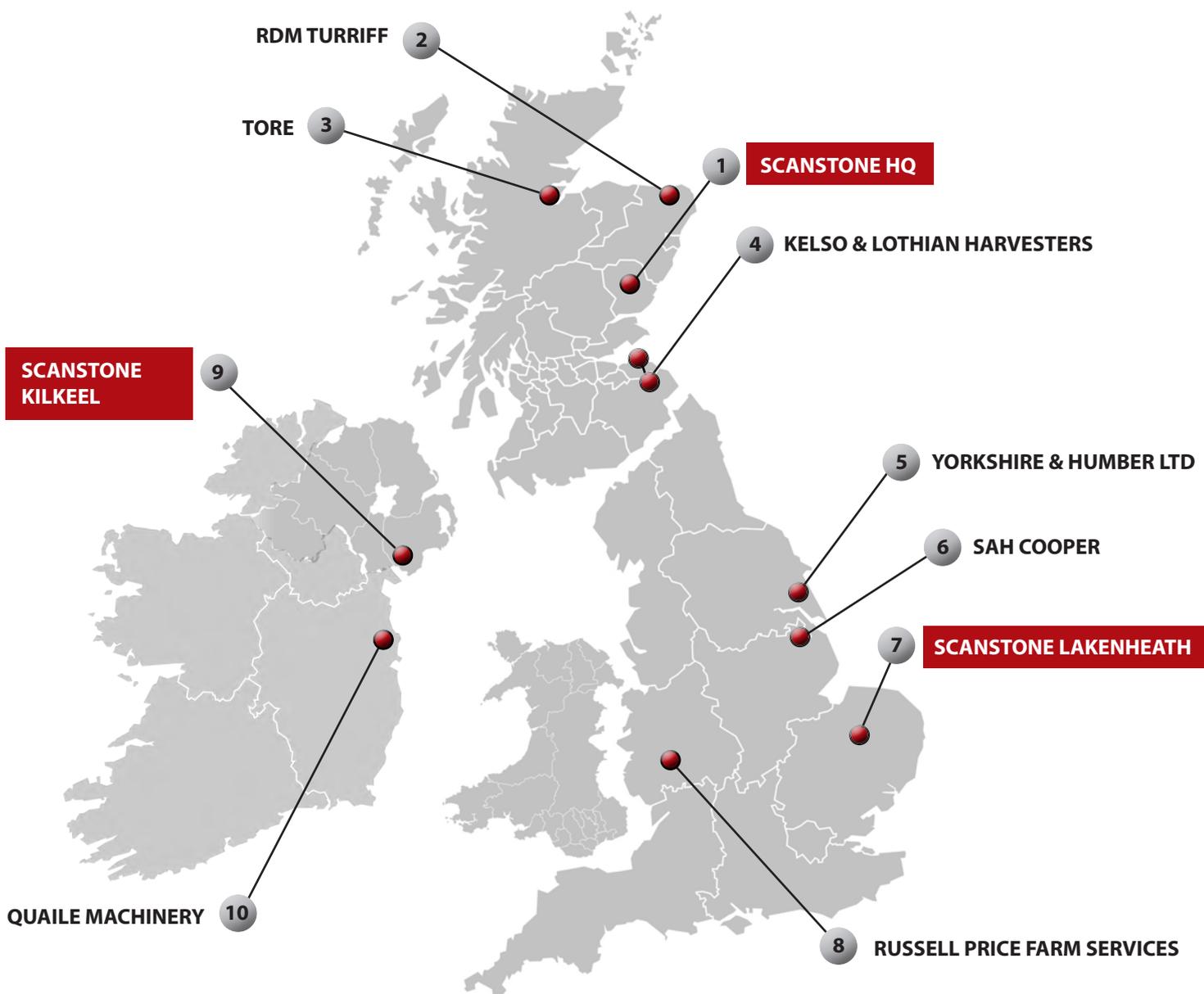
Every seventh bar, there is a row of pintles which are 20mm high to assist the crop up the web. These are very gentle.

DIMENSIONS



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TESTIMONIALS ●

WHAT THE FARMERS SAY

William and Alison Skea from ScanStone visited Fairlie Fresh, to see James Fairlie and his father Ian, and find out how they got on with their 2 new 5 Webber destoners after an uninterrupted season.

James and Ian Fairlie, who run the farm at Kirkton of Monikie were very impressed with the performance of the 5 Webbers, and Rab and Ian praised the machine, giving in-depth and constructive feedback which is invaluable to the R&D department at ScanStone's base in Angus.

Coming away from 3 machines, Fairlie Fresh said they were able to make a saving while still achieving the same output in the same number of acres planted.

Rab and Ian commented that the machines were easy to pull with their 2 John Deere 6215R tractors, and there was no boost required throughout the season.

They were able to work both uphill and downhill and commented that they could cover area with the new 5 Webbers that they could not with their previous machines.



COMING AWAY FROM **3 MACHINES** WE WERE ABLE TO MAKE A **CONSIDERABLE SAVING** WHILE STILL ACHIEVING THE **SAME OUTPUT**

Ian Fairlie mentioned that having the extra 5th drop meant that a lot of areas did not need to be bed tilled, unlike the previous year, offering more flexibility and less cost. He said that they were able to rely on the performance of the destoners, regardless of soil conditions, and said that in a wetter year, the 5 Webbers would really be worth the investment.

Rab and Ian were very impressed with the new Chateau Bed Formers that they had on demo earlier in the season. They mentioned that the destoner followed the Chateau ridges perfectly, and the intake disks of the destoner were exactly where they needed to be to pick up all the soil, while missing any stone. The wheels of the destoner also fitted well into the ridges and prevented the destoner wandering unintentionally. The flatter bed was advantageous in a dry year like this season, as it kept in as much moisture as possible, while

also offering an even intake and even wear across the width of the destoner, they said. The wider steeper bed left by the chateau ploughs meant that the destoner could work less deep and achieve a more than adequate amount of soil behind the bed, Ian remarked.

James said that he had never planted in headlands like it.

Comparing the machines to their predecessors, James commented on the soft drive which acted as a shock absorber on the road and reduced strain on both the tractor and machine. Rab and Ian both commented that it was more comfortable when roading the machines from their farm at Kirkton of Monikie, up to Aberdeenshire where they also plant potatoes. The upgraded 8-stud commercial-style axle on the new 5 Webbers meant that road travel was safer, easier and with no maintenance issues.



On their first journey to land 60 miles away, Rab and Ian mentioned that they stopped 3 times to check the temperature of the wheel hubs, but everything was as normal.

Ian Fairlie remarked that the bigger 405 R24 wheels seem to fit perfectly in the rows, and their wider width meant less compaction, while being able to flatten the stones in the bed. The 8-stud upgraded drawbar with pick-up hook, meant hitching to and from the tractor was effortless. Rab mentioned that there was a better clearance at the front of the machine as well.

Working with a longer machine, James was initially unsure about the ease of turning on the headland, however with the increased steering

angle on the new 5 Webber compared to his older machines, the extra length did not pose any issue to manoeuvrability.

When asked if the slight dip in the beds formed by his ScanStone destoner made any impact planting behind with his 6 Row planter, James said that it didn't make a difference to him because the front of the planter had a share to part the soil anyway, and there was always plenty of soil to plant into.

The new control system on the ScanStone is entirely designed, programmed and built in-house meaning that extra functions that drivers find useful can be added without much hassle. Rab and Ian found the control box in the tractor cab easy to

work with, and there were a lot more options for automating processes if desired. For example, within the automatic Headland Management System, Rab and Ian were able to lower the share to the pre-set depth, lower the discs, start up the scrubber web at the pre-set speed, start the cross conveyor in the appropriate direction and centre the wheels under one single button. This meant more attention could be given to adjusting the position of the cross-conveyor frame, ensuring that the stones were always placed precisely between the beds. Rab and Ian both had ideas on how to further improve the control box, which has been taken back to the R&D department at ScanStone's base in Forfar.

HAVING THE **5TH DROP** MEANT THAT A LOT OF AREAS DID NOT NEED TO BE BED TILLED, UNLIKE THE PREVIOUS YEAR, OFFERING **MORE FLEXIBILITY** AND **LESS COST**

James & Ian Fairlie
Fairlie Fresh, Scotland



ScanStone
POTATO SYSTEMS

PARTS

DEALERS

TESTIMONIALS

GALLERY

THE QUICK CHANGE BLADES STOOD THE TEST OF SUCH **“ STONY & ARDUOUS ”** CONDITIONS

Shaun Smith, from Wellsden Farm purchased a ScanStone 5.4m Bed Tiller which went to work in the Spring of 2020. After a successful trial and demo of the machine, he decided it met his needs and could be driven comfortably by the tractor he already had, an MF 7260.

With the somewhat arduous conditions experienced in the Mearns area, Sean Smith opted for auto reset ploughs on the rear of the bed tiller. A unique feature of the ScanStone.

The quick-change blades were also suitable and stood the test of the stony condition and with such an abrasive year that we have just had, blade changing was being done more often than usual.

The ScanStone 5.4m Bed Tiller covered approximately 270 acres for Wellsden, mainly cultivating carrot ground but also some other contracted bed tilling.

This machine is the 3rd machine to join Wellsden Farm in as many years, with a ScanStone 4 Webber, front mounted tiller and now a 5.4m rear mounted folding unit and ploughs.

The machine is equipped with reduction gearboxes to mitigate the strain on the main cross shaft, this in turn slows the rotor down but keeps a highspeed shaft, limiting the torque strain. Sean also particularly liked the achievable depth of the bed tiller; this was a very important feature for preparing ground for carrot sowing.

Shaun Smith
Wellsden Farm, Scotland



IMPROVED RUNNING COSTS OVER THE LAST 3 YEARS

Whitewater Potatoes, at Derachie Farm, Angus took delivery of a new ScanStone destoner in 2017. The machine has now completed 3 seasons with farm manager, Graham Scrimgeour.

Moving from a different brand of destoner in the past, it is fair to say that Graham is delighted with the machine and especially the improved running costs over the last 3 years.

The machine is a ScanStone 4 Webber destoner which has 3 equal length webs and a long rear web complete with a hydraulically driven scrubber web. Growing 300 acres of both seed and ware potatoes, the 4 Webber was extremely versatile for the conditions at Derachie farm. The machine coupled together with his Fendt tractor covered an average of 15 acres per day.

Under Graham's management of Derachie farm, the ScanStone machine, and all machines are all very well maintained out of season, but on the occasion of an in season break down the "parts department up at the ScanStone factory couldn't have been more helpful and there was always plenty of spare parts available" commented Graham Scrimgeour. He went on to add that this was "the beauty of buying locally made products, all the spares you could ever need were always available".

The team at ScanStone were very grateful recipients of a couple of bags of potatoes courtesy of Whitewater Potatoes which was very welcome given the recent COVID-19 restrictions on food shopping.

Graham also runs a ScanStone 1.8m bed tiller as part of his potato planting operation. This has quick change blades.

Graham Scrimgeour

Whitewater Potatoes, Derachie Farm



TESTIMONIALS ●

WHAT THE FARMERS SAY

INCREDIBLY LOW REPAIR COSTS ”

'Separating 500 acres a season with the ScanStone 5 Webber resulted in incredibly low repair costs; After 2 seasons and 1000 acres with the machine, the only repairs were a couple of joining rods, the odd joining kit and one digger web. Downtime was kept to a minimum as well which delivered maximum output during the busy spring season.'

RJ Beever
Woodhall Spa, Lincolnshire



RUNNING COSTS SECOND TO NONE ”

Alan Bartlett & Sons purchased 3 new ScanStone 5 Webber S machines in 2018; Together they have covered 600 acres in a season. Field manager Neil Cotsworth remarked:

'We opted for the ScanStone 5 Webber S because we had to be sure to extract all the small stones prior to sewing Chantenay carrots. Also we found the web machines far easier for operators to drive and maintain than star machines. I found the running costs were second to none.'

Neil Cotsworth
Alan Bartlett & Sons



HARVESTING COSTS **DOWN PER ACRE** ”

‘Harvesting 840 acres with a windrower and harvester reflects a similar output but with less tractors, trailers and men; making trailers run more efficiently and never waiting in the field.

After damage tests, the Windrower displayed very gentle handling of crop. A fuller harvester protects the crop more in a dry season.

In previous years with 2 harvesters, trailers were waiting in the field which was less efficient.’

James Brunton,
Brunton Farms, Cuthlie



TESTIMONIALS

WHAT THE FARMERS SAY

“
**HARVESTING
MORE**

**WITH
LESS**
”

Robert Doig of Old Fargie Farm used the ScanStone windrower as an addition to his potato harvest in the 2017 lifting season. This resulted in 540 boxes of seed potatoes a day with a windrower and self-propelled harvester.

‘We have not paid any price in damage and the machine has been a huge help to harvest, reducing the overall lifting time by 10 days. Running the potatoes over the Windrower incurred no extra damage.

With having some steep fields, there was a lot of one way digging up the hill; the windrower was good for this, and with the machine being nimble, there was a massive productivity gain on points / headlands.

Managing to harvest over 20 acres a day, I can't see our operation going back to not windrowing.

With additional harvesters comes additional trailer and tractor costs.

With the concept of windrowing, this cost cut tractor hire by £50 per day and meant there was 2 less waiting trailers this year, harvesting more with less.

The reason we chose the ScanStone machine was because it has the right amount of cleaning and gets rid of the haulm. Also double discharge and being drawbar mounted helps keep the share in the ground over undulating ground.’

Robert Doig mentioned the service being “exemplary” and the concept of windrowing “transformed how we work”

‘A windrower and self-propelled harvester is an easy match for 2 trailed harvesters’

Robert JS Doig Ltd
Old Fargie, Perthshire





SAFETY IN VOLUME



Alan Twatt Potatoes in Fraserborough harvested on average 280 boxes per day with a best day of 346 with a ScanStone Windrower and Grimme GTS.

This was a 60% - 70% increase in harvesting capacity with a windrower. With the dry conditions of 2017 there was no damage to the potatoes, satisfying our Egyptian market. We would have to double the trailer fleet and picking squads if we had another harvester. We found with a full harvester, the overall damage results were reduced considerably; safety in volume.'

Graham Twatt

Alan Twatt Potatoes Ltd, Aberdeenshire

INCREASED OUR COST EFFICIENCY BY UP TO 70%



'We farm 550 acres of seed in some areas of Kincardineshire, some of the most testing land; The ScanStone Windrower has been a great addition to our harvesting operation. In the right conditions, the machine will increase our harvest cost efficiency by up to 70%. Boosting intake to as much as 50 tonnes an hour, we run the ScanStone windrower alongside a Grimme GT170 with a full 4 person picking squad seeing minimal reduction in pace from the harvester, being sure to keep the box content above 90% potatoes.

Great care must be taken to keep the windrower close to the harvester in order to keep the exposed potatoes moist, thus reducing damage.

In testing conditions, or land with a one way lift, the manoeuvrable ScanStone allows us to cut the travelling of the harvester and trailers by half which I find ultimately most time consuming.

In these testing times I believe we need to take every opportunity to improve efficiency in which I would vouch for the ScanStone Windrower.'

John Fotheringham

John I Forbes & Partner, Slains Park



TESTIMONIALS

WHAT THE FARMERS SAY

ABSOLUTELY NO ISSUES WITH **RELIABILITY**



Stewarts of Tayside have purchased a 3rd machine for their 1800 acre turnip planting operation which commences in Jan / Feb each year. With a problem free run with the ScanStone triple bed tillers, Liam Stewart was pleased to make remarks on the machine.



SAVING **114 LITRES** OF FUEL PER DAY

The Quick change blade system is by far the best system for maintaining the tiller blades. Previous years have seen us having to have an extra bed tiller purely to act as a backup machine for when the other ones are being re-bladed.

We have never lost a blade. Horse power and fuel requirements are far less. From 350hp required with our last bed tiller, the ScanStone only requires around 250hp. This in turn saved 114 litres of fuel per day, which amounts to around an £80/day saving from 2 machines and also allows us to work 1km/h faster across the land.

Liam Stewart
Stewarts of Tayside



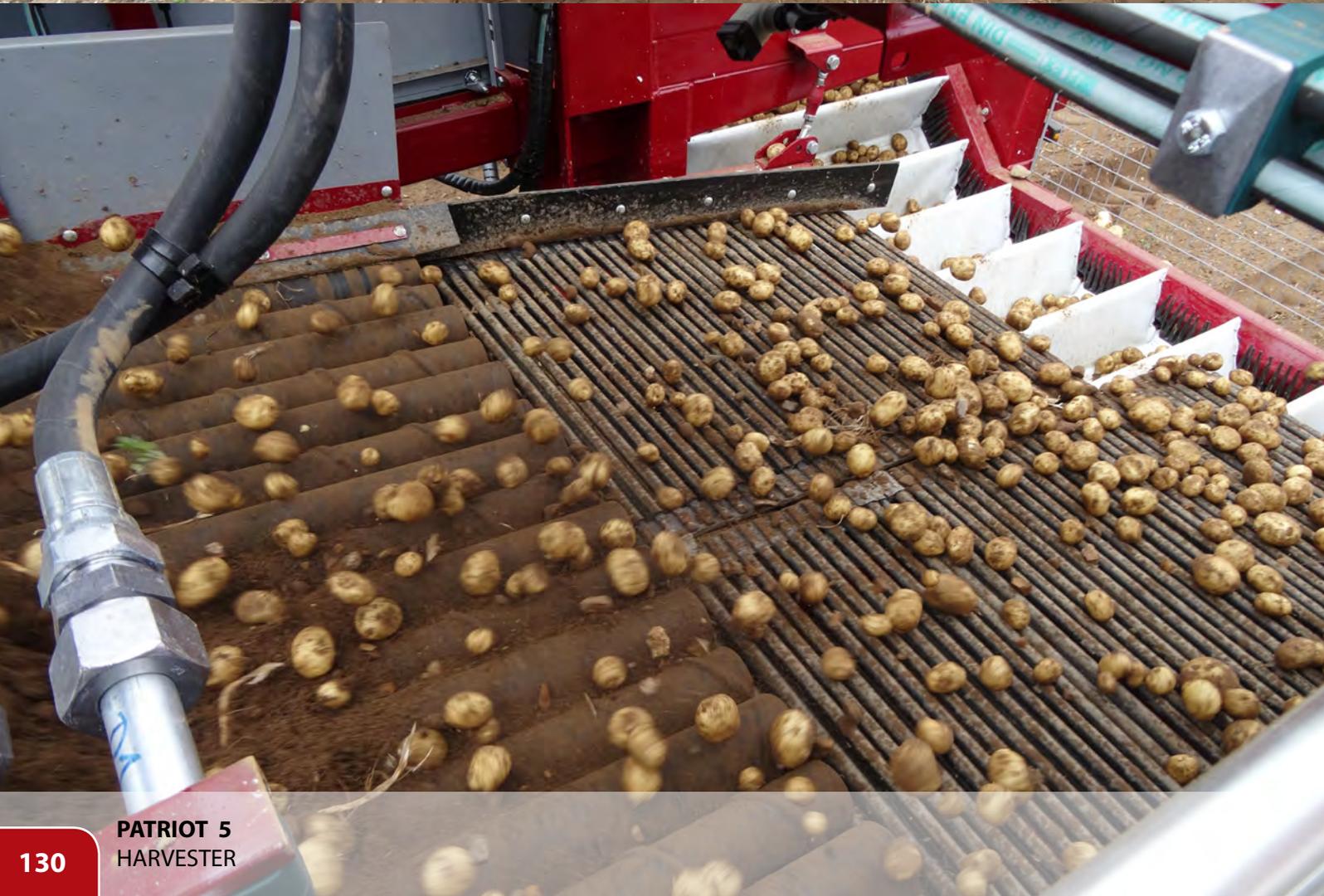
CHANGING BLADES **IN THE FIELD**



Being able to change the blades in the field is a huge saving to our operation.'

GALLERY 33

HARVESTERS



PATRIOT 5
HARVESTER

GALLERY 34

HARVESTERS



PATRIOT 5
HARVESTER

PARTS

DEALERS

TESTIMONIALS

GALLERY

GALLERY 35

HARVESTERS



PATRIOT EVO
HARVESTER

GALLERY 36

HARVESTERS



PATRIOT EVO
HARVESTER

PARTS

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GALLERY