

A COST-EFFECTIVE LINK



Planting oilseed rape with the Shakaerator and seedbox. Seed is placed at the optimum depth 10mm behind each cultivator leg.

A one-pass seedbed combination created from linking two types of powered cultivator is paying dividends on farms in Herefordshire and the West Midlands

"A little ingenuity goes a long way in agriculture and a practical solution for a combined cultivation and drilling cycle could reap significant rewards for enterprising contractors and farmers." That is the view of Herefordshire arable and beef farmer Jonathon Goodwin who believes that by not better utilising machines and equipment they could already have, many farmers may be missing an opportunity to create better soil growing conditions, prompting an increase in yields while saving considerable sums on new machinery.

In Mr Goodwin's case, it is the use of a standard 3m, 7-leg McConnell Shakaerator-power harrow combination, which he started using five years ago for seedbed preparation for the 400 acres of cereals they grow on their 815-acre farm near Hereford. Up till then seedbed creation was primarily plough-based, with compaction taken out with a subsoiler before sowing with a power harrow drill combination. Explaining the change in regime, he says: "We had seen good results from the Shakaerator-power harrow system on a visit to a farm in Essex. We

already had the two machines on the farm and were able to put them together when we learnt that McConnell had a three-point linkage package for the cultivator."

Now the establishment system comprises a pass with a Terradisc to create a stale seedbed, followed by a pass with the Shakaerator-power harrow to create the tilth in front of the drill. The combination is also used in the autumn and spring to take the ridges and compaction out of the potato ground.

No increase in horsepower was needed for the combination, which works comfortably behind the farm's 160hp tractor at a forward speed of 8.0 to 10kph. "It is doing a better job as we aren't relying on forward speed and we're getting an output of 40 to 50 acres a day depending on ground conditions," Mr Goodwin says.

The designs may not be state of the art or the concept revolutionary, but it is a cost-effective retro-fit that is delivering results in the fields and in the books on the farm, where it has reduced man hours and increased average oilseed rape yields to 1.6t/acre. And, Mr Goodwin emphasises, at far less cost than other one-pass systems

they considered. "The ability to create the optimum seedbed environment for tap roots such as rape drastically reduced the time and cost involved in carrying out another pass, which, at a conservative calculation, is £10 to £12/acre," he says.

"And it's a practical solution that makes sense from every perspective. We looked at other options, but they required a very high horsepower tractor, from 160 to 200hp. Then there was the investment



John Goodwin with the farm's Shakaerator-power harrow combination, which, he believes, "provides both a practical and intelligent solution in the creation of an ideal seedbed in one pass for farmers constantly wrestling to stretch finances and make best use of time and resources".

in the new cultivations equipment, which was colossal ranging from £11,000 to £14,000 for a standard implement. Frankly, in our position, we just couldn't justify it."

In a further development Mr Goodwin has fitted the Shakaerator with an oilseed rape applicator. "The addition of the seed box was just another natural development and it works with a great level of accuracy and control, in what has been a successful system," he says.

"When you look at the results achieved with the Shakaerator-power harrow, it's even more pleasing. I think it's definitely as good as anything else I've seen, but at a fraction of the cost. These days, when expensive new machinery is not an option, you've just got to get on with it and use what you have in the yard."

Versatile platform

In the West Midlands, three years ago Baker Farms' changed its establishment regime for a proportion of the winter wheat and oilseed rape it grows on the 1000 acres it farms on three holdings in the Wolverhampton area. Before that, the system comprised a pass into stubble with a 3m Shakaerator, followed by two runs with a tine-disc combination cultivator

before sowing with a power harrow/drill. Then the Shakaerator was fitted with a set of linkage arms – uncovered in a hedge by a local dealer – which were coupled to a 20 year-old 3m power harrow. "We'd wanted to introduce min-till into the cultivations mix but still wanted a sub-soiler," explains Rupert Bennett, who jointly operates the equipment and manages the farms with owner, Paul Baker.

During the past three years the combination has been used to establish some 700 acres of winter wheat and oilseed rape, predominantly on the heavy land, with one less pass with the tine-disc cultivator. Last autumn the number of cultivations passes was reduced even further; with the late harvest there was no time to get a good chit and the Shakaerator-power harrow was put straight into the stubbles, working in a 'min-till mode' at 10cm deep. "It produced a good tilth and we were able to go straight in with the drill," Mr Bennett says.

Output is "easily 40 acres/day, even accounting for small field sizes". And the combination works behind a 165hp tractor, "155hp will handle it but the extra horsepower gives us a fuel saving as it's well on top of the job", comments Mr

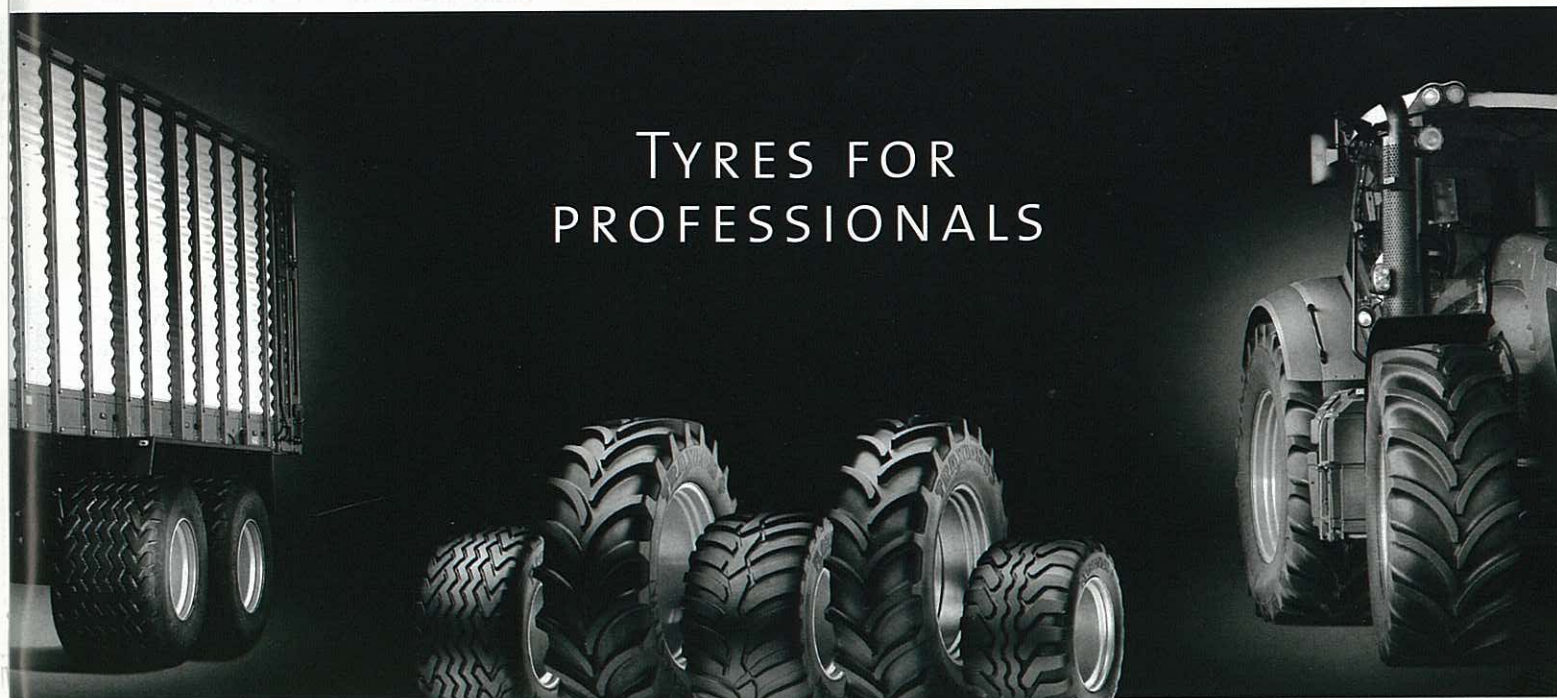
Bennett, who adds that the combination is not used for all primary cultivations; Baker Farms still ploughs. "No one item of equipment is perfect," he says. "But the beauty of the Shakaerator and linkage arms is that it gives us a versatile platform that enables us to use the cultivations system most appropriate to suit the soil type and conditions.

"It allows us to min-till and do the best job the first time over to reduce costs and conserve seedbed moisture. And, although it slows the operation, we can go deeper if sub-soiling is needed. We can also separate the machines and use them individually. It makes a better job as a one-pass stubble-to-seedbed cultivator and is a lot less expensive than the specialist implements we have trialled, which are only in use for two months of the year; a complete rebuild of the power harrow cost only £400. Establishment costs have been reduced and as we have reduced the traffic, the ground is less compacted and better drained, with the result that germination is more even.

"I honestly think that by not promoting the availability of the link arms for the Shakaerator, McConnell is missing an opportunity to increase the sales of the machine." ●

User Views

TYRES FOR PROFESSIONALS



FLOTATION PRO TRAXION+ FLOTATION TRAC TRAXION 85 FLOTATION+

HIGH QUALITY, WIDE RANGE, PREMIUM IMAGE, EXCELLENT PERFORMANCE, LONG-LIFE SPAN.

SEE YOUR COLLEAGUES ON SCREEN AT VREDESTAIN THE MOVIE



WWW.VREDESTAIN.COM/THEMOVIE