



“Investing in technology allows you to be more efficient.”

# Investment unlocks efficiency

## Machinery Masterclass

**Grimme’s CleanLoader is claimed to be a jack of all trades — it cleans, it sorts, and it loads. But does it live up to its reputation? CPM visits one in Norfolk to get an insight into what the kit does, and to see if it’s worth the investment.**

*By Charlotte Cunningham*

**The mercury hits 26°C near Kings Lynn, Norfolk as a Grimme Varitron harvester begins making its way through a crop of new season Daisy potatoes — with the dust flying reminiscent of a wild western film.**

“This is the driest start to September we’ve had in a long while,” notes grower, Nick Glasspoole, as the crop flows into the accompanying trailer.

From here, the trailer will make its way to the yard, less than a mile away, where it’ll be unloaded into a Grimme CleanLoader before filling the awaiting lorry.

Blackwater Potatoes — headed up by Nick and his wife, Sam — grows more than

405ha of potatoes a year across the county. “I’m not from farming heritage, but I’ve worked in the industry since I was 21,” explains Nick. “And Blackwater Potatoes was born in 2017.”

### Invest and expand

“In our first year, we grew 16ha of Lady Valora — a crisping variety. However, we’ve invested heavily — both in terms of land and machinery — and as a result have been able to expand our growing area significantly.”

All the land is rented and stretches from Kings Lynn to Hunstanton, and all the way over to Holt in north Norfolk.

With a tiny team behind an arguably complex operation, Nick stresses that technology has been instrumental in facilitating this expansion — and most recently, the purchase of the CleanLoader. “When we first started, we were using a subcontractor who used incredibly archaic kit. It wasn’t fit for purpose — I think there’s still bills for demurrage flying around now from where hauliers were just waiting around,” he sighs. “Some days we’d get our contracted eight loads out and it’d be a miracle — other days, it would be a load and a half, and our customers were getting as frustrated as us.

“At the time, chemicals for desiccation were changing too — which all together put us in a bit of a ‘sink or swim’ situation.

So 18 months ago we bit the bullet and purchased our own CleanLoader, a GT elevator harvester and KS 600 triple toppers. We then also purchased a box filler to go on the end of the CleanLoader.”

As it alludes to in the name, the CleanLoader is designed to reduce trash content in crops including potatoes, carrots, onions and other similar produce, explains Grimme’s Ed Hodson. “In a nutshell, the CleanLoader is a field-based — or yard-based — mobile loader designed to aid the sorting, cleaning and loading of produce into lorries. The ethos behind it is based around the fact that, depending on harvesting conditions, a single trailer of potatoes can contain up to 20% soil/trash — potentially equating to 10t/ha.” ▶



*Everything is designed around quality handling, explains Ed Hodson.*

# A LONG WAY TOGETHER



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# Machinery Masterclass



*The business invested in a CleanLoader, as well as other equipment last year, and say it has helped them become more efficient.*



*The ethos behind the CleanLoader is based around the fact that, depending on harvesting conditions, a single trailer of potatoes can contain up to 20% soil/trash.*



*The CleanLoader is fully road legal and features four large wheels on a tandem brakes and sprung axle.*

► Nick notes that he first came across the product from a fellow, trusted farmer. “I’ve known Gavin Janaway of Whitewater Potatoes since I’ve been in the industry, and he showed me some footage of the CleanLoader working — loading Lady Claire into bulkers in just 20 minutes. It was a real ‘penny drop’ moment.”

Discussions started in the spring last year and the new CleanLoader arrived in the last week of July — just days before the 2020 harvest started. “The harvester and the grader came and the next thing we knew we were pulling potatoes out of the ground,” laughs Nick. “It was quite overwhelming — but the investments proved to be brilliant.”

Last season, the weather turned from very dry to very wet rather quickly — giving the CleanLoader an opportunity to demonstrate its flexibility, he adds. “Where the CleanLoader really made us last year

was in our Fontanne and Taurus — the long-term storage crops.

“We had some incredibly dry fields on very light land. However, the handling system on the machine is so thorough, yet so gentle, that the crops came out as clean as a whistle and with no bruising at all. We’re supplying customers who expect a high-level of diligence and so it really assists with this.”

## Dealing with extremities

The business also had the other extreme with two very wet fields, which could only be described like the Battle of the Somme, chuckles Nick, but adds that the CleanLoader dealt with them with ease. “These fields were harvested on 7 October last year — just after the rain — and it was all a bit of a mess, to put it lightly. However, this was probably the standout moment for me last season, where I was incredibly grateful and reassured that I’d made the right decision in purchasing the CleanLoader.

“When you can send 2000t of potatoes without a blemish on them, despite challenging conditions, you know you’re doing something right.”

With land spread out across Norfolk, the CleanLoader’s ability to fold up and be towed easily is another plus point, he adds. “When we start to think about costs, it’s much more efficient than running multiple tractors and trailers,” says Nick. “And then there’s also the environmental side of operations — reduced fuel and power is undoubtedly better from a carbon footprint perspective.

“While it’s not something being specifically requested by our customers at the moment, producing food with a smaller footprint is no doubt going to be the direction of travel across the industry — so it’s good to be ahead of the curve.

“We’re custodians of the land we’re hiring, and we have a duty of care to farm in a way which results in as minimal damage as possible.”

Today, the operation runs with just one man on the four-row Varitron, three trailer drivers and three other members of staff on inspection/grading — who are primarily looking out for golf balls, which interestingly slice and fry in the same way as potatoes, laughs Nick. “Investing in technology allows you to be more efficient. Within 15 minutes, the CleanLoader can be folded up and on its way to the next place.

“It takes some guts to do — but the benefits speak for themselves. At a time where long-term labour resources are under

threat, on top of rising running costs, technology can allow you to cut your labour bills dramatically. A business has to make money, after all, and this is just one of the ways to be more efficient.

“We actually timed how quickly the CleanLoader works last year on a crop of Daisy and it was able to fill a bulker up in just 22 minutes.”

Nick also uses it in a fairly unique way, running a box filler straight off the back of the CleanLoader — helping that overall business efficiency.

In terms of ballpark figures, growers would be looking at around £260,000 for a new CleanLoader. “It’s probably worth stressing here that this cost doesn’t just buy you a piece of kit — it buys brilliant service, and the backup I’ve had from Grimme has gone above and beyond.

“For example, I had an issue with the belt — problems are bound to arise when you’re working with mechanisation — however, I had a new machine on farm within 12 hours. You can’t ask for more than that.”

As the trailer laden with potatoes arrives back at the nearby yard, a bit of skill is displayed as the driver reverses cautiously up to the CleanLoader and unloads its contents.

Walking from front to back of the rather commanding machine, everything is designed around quality handling with minimal damage to crops, explains Ed.

“There’s a receiving hopper at the front end of the CleanLoader and from here, the potatoes are elevated up over a series of sorting coils. The first set of coils provides intense soil separation, while the second coil unit can be used either for additional separation or pre-grading of the crop depending upon conditions.

“The coils are fully adjustable — both in terms of height and spacing — meaning they can be tailored to the requirement of the customer. This can be useful for removing loose clods of soil or for sizing — with potato customers, in particular, often wanting to remove small potatoes or stones at this stage.”

From here, produce moves to a picking/inspection table equipped with built in trash conveyors and it’s large enough to facilitate four people working in this area, adds Ed. “One of the big benefits here is the width of the hopper floor, which stays at 2.4m for the whole way to the elevator to enable maximum throughput and no bottle necks or pinch points.

“Two angled hedgehog belts aid the transfer the crop from the picking table onto the 1.2m wide cart elevator.

"The elevator has a 25° (or 6.5m) pivot range, removing the need to constantly reposition trailers during filling, and with a 7m overloading length it's possible to leave the trailer out of the field completely, discharging over any small hedges and ditches.

"The swan neck design of the cart elevator also allows for positioning the crop deep inside the trailer minimising bruising potential, while maintaining its maximum unloading height of 6m."

The CleanLoader is fully road legal and features four large wheels on a tandem air braked and sprung axle designed to keep ground pressure to a minimum while ensuring a smooth ride during road transport, he explains. "What's more, it's fully independent, requiring no external power source to operate due to an on-board 55KW/74hp, four-cylinder Hatz air-cooled diesel engine. What's more, we believe it also provides great fuel economy, using as little as 50-litres of fuel over a 12-hour period.

"Trials I've carried out myself with two machines assessed over a week-long period found the fuel consumption to be 3.2 litres/hr."

And what about output? Though this will vary from farm-to-farm, Ed says the CleanLoader has the capability to deliver an

output of 120t/hour — depending on soil type, crop, and conditions.

Further advantages include the integration of Grimme's popular VC50 control unit, which provides full touch screen control of all major hydraulic and electric functions, as well as the integrated cross conveyors which are extendable from both sides eliminating the need for additional conveyors, he concludes.

As the lorry leaves the yard, Nick looks almost proud as he admires the machinery stood in front of him. "The cleanliness of the potatoes you've seen get loaded up — and at the speed it did so — is just testament to Grimme's technology. As I said, it often takes guts to invest a lot of money in technology — but in my view, the benefits speak for themselves.

"What this has done for our business



*The CleanLoader has the capability to deliver an output of up to 120t/hour depending on soil type, crop, and conditions.*

in both the short and long-term will really help us future-proof our operations and be more efficient in how we do so." ■

## Machinery Masterclass

Technology is advancing fast, and the capabilities of equipment found on farm far outstrips what was available just five years ago.

For growers who embrace the change, the potential to cut cost, refine production systems and boost output is immense. But how can you make an informed choice about whether an innovation will deliver the refinements you seek if you've not operated it before?

This is where Machinery Masterclass comes in. In this article, sponsored by Grimme, CPM has worked with the manufacturer to get a true user experience and an insight into the technology advances it has introduced.

We hope this will bring you a 'try before you buy' feel for specific features found on this item of machinery and help you remain at the forefront of progression in crop production.

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