

Forage wagon helps to reduce silage costs and boost quality

If you are looking at how to cut silage-making costs this season and improve all round efficiency, it could be worth considering a contractor with a forage wagon rather than a conventional forage harvester. British Dairying finds out why.



Contractors Gethin and Aled Morgan are finding increased demand for making silage with their forage wagon, due to high fuel costs and labour shortages

Increasing numbers of producers in west Wales are making better quality silage at considerably less cost using a forage wagon rather than a harvester. Given the high fuel costs and labour shortages, that's a useful discovery.

Gethin Morgan and his father, Aled, established their contracting business 12 years ago, based near Newcastle Emlyn, Ceredigion.

Growing customer base

"We've gradually been building up our customer base, with dairy farmers wishing to take three or four cuts over the April to October season, varying in area from 32ha to 104ha," says Gethin. "We've also got a few beef and sheep farmers who are focused on just one big cut.

"Customers are realising that the forage wagon requires only one tractor, which enables me to keep picking-up costs down," he adds. "We started contracting 12 years ago,

introduced one Strautmann Giga-Vitesse CFS 3602 wagon six seasons ago, and invested in a second last year.

"They are big, high-performance machines with a medium compressed grass capacity of 65m³ (the German standard of 34m³ DIN). However, each requires just 240hp to operate on what's usually undulating land, tracks and roads from field to clamp."

The team had been picking up, transporting and unloading up to 48ha/day, depending on the distance from field to clamp. However, since adding the second wagon to the fleet, they can keep the operation going.

"We can work around the weather, improve our efficiency, and clear up to 80ha/day," says Gethin. "We're flexible, able to offer just grass collection or the full service. However, most farmers request the latter, and we'll work through the night, if necessary.

"Yes, it is challenging to find good, skilled, staff, but we're essentially

family, experienced, and all over 30 years old. While Dad and myself do other contracting work throughout the winter, we can rely on four others to help out as and when we need them. When we're on long hauls, we have help from another contracting business which has a Strautmann wagon."

"The forage wagon requires only one tractor, which keeps costs down."

The Strautmann 2.25m camless pick-up, combined with its continuous flow system (CFS), is conducive to what farmers are looking for, says Gethin. "After an average 24-hour wilt, the CFS gently picks up and spreads the grass across the whole

width of the rotor. Consequently, the knife bank is kept evenly loaded, so a consistent 35mm theoretical chop is achieved with even wear on the cutting blades. The system requires less power to pull and less fuel.

Minimal downtime

"If the machine happens to hit a stone or a hard foreign object, then we like the way the knives have been designed to snap back and return to work."

Efficiency is also gained inside the forage box, he explains. "After the grass is fed inside, the transport floor chains enable it to be evenly distributed across the full width, rather than channelled down the centre.

"This enables up to 1.5 times more grass to be carried in each load compared to a same size conventional forage trailer. That's because the whole

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load space inside the wagon is filled to the same density rather than high density down the centre and low density at the side."

Time in the workshop is also kept to a minimum. "We grease every day and can flip over each of the 44 double-sided blades in about 30 minutes," says Gethin. "We have a spare set of blades for each machine and sharpen them every 16-40ha, depending on the crop's age."

"Yes, the wagons appear to be huge, but we've never had to turn any work away because of smaller fields, negotiating slopes or getting through gateways. Manoeuvrability hasn't been an issue thanks to the Strautmann's chassis with spring-loaded tandem axles, which makes for easy driving and towing, along with our own years of contracting experience," he adds.

"If we have any serious issues with the wagons which we're unable to sort ourselves, our dealership is just a phone call away."

Multi-cut farm system

Introducing a forage wagon to help achieve top quality multi-cut silage cost efficiently is proving an essential part of the dairy unit's management for Deian Evans, who runs a low input system near Newcastle Emlyn. His 200-cow crossbred grazing herd currently averages 6,000 litres at 5.2% butterfat and 3.7% protein, with 4,000 litres from forage.

"Since we have an autumn block calving herd, silage quality is critical, and can influence the difference between profit and loss," he says. "We're focused on taking three to four quality cuts, averaging a D-value of 70, with 11MJ/kg of metabolisable energy and 15% crude protein. "That amounts to 2,000t of clamped silage



Alded and Gethin Morgan harvested 30ha of Westerwolds for Llyr Griffiths (right) to stretch forage stocks in March

and, if necessary, topped up with big bales. And we've never looked back since transitioning seven years ago from forage harvester to forage wagon," he says. "Employing the Morgans has enabled us to reduce tractor and labour requirements from up to four units to just one, together with accompanying fuel," Deian adds.

"Another advantage is the chop length. We like to cut at the young leafy stage and the forage wagon cuts at an average of 35mm, whereas the self-propelled forage harvester was cutting what we considered was too short and contributing to frequent left displaced abomasums (LDAs).

"Since clamping a longer chop, we've seen an improvement in cow health; we believe the nutritional value has improved and LDA incidents have been virtually eliminated."

Deian, together with the Morgans, also recognises that during hot dry weather, the forage wagon's mode of action helps to maintain silage nutritional value. "The forage harvester, driven at 2,000rpm, smashes the dry grass, consequently the leafy protein and energy is blown away, leaving just the fibre. In contrast, the Strautmann CFS roller pulls wilted grass off the pick-up and into the rotor, through the knife bank and then straight into the loading space, keeping losses to a minimum.

"Nowadays, the entire silage-making operation requires fewer people and machines, and is a lot more relaxed, another huge bonus."

Zero grazing system

A forage wagon provided the sole solution for Llyr Griffiths when

it came to zero grazing 30ha of Westerwolds in mid-March to supplement dwindling silage stocks. The family's Newcastle Emlyn herd comprises 500 Holstein grazing cows, which average 8,500 litres.

"We sowed the Westerwolds after maize and had planned to cut and clamp it," says Llyr. "However, the weather conditions were against us and we wanted to stretch the silage, increase forage intakes and maintain yield."

The Morgans harvested the crop with just one pass; they attached one of their Claas Disco 3100 FC mowers to the front of their 240hp New Holland, towing the Strautmann Giga-Vitesse CFS 3602.

"Since clamping a longer chop, we've seen an improvement in cow health."

"It was going to be far too wet to pull out the forage harvester and trailers, so there was no alternative to zero grazing than one single pass to cut, rake, collect and cart," notes Llyr.

"The kit managed the crop without any field issues, and we gained an extra two litres per cow/day from feeding an average of 25kg fresh weight silage (5kg dry matter) per head/day.

"We're hoping for a second zero cut in April prior to cultivating and redrilling."



Deian Evans takes three to four cuts of silage, and has reduced labour requirements from four units to just one