



BlackBird® helps dairy farm's multi-cut system

Case Study - Smalmstown Farm, United Kingdom



Problem

Inefficient grass silage system

Solution

Vogelsang trailing shoe system
BlackBird 12m

The customer and the problem

Smalmstown Farm near the English, Scottish border extends to 1400 acres of mixed forage and broad acre crops. A mixture of five- and two-year leys are complemented by winter wheat, winter barley and maize grown under film. A new slurry store was installed in 2019 providing the farm with 1.65-million-gallon slurry capacity for the herd of 1050 Holstein cows.

"We have brought as much work back on to the farm as possible and invested in a new Vogelsang 12 metre BlackBird trailing shoe to spread our slurry more efficiently," says farm owner Robin Fisher.

The solution

A move to a multi-cut silage system has increased grass yield at the farm by 20 percent. Mr Fisher is using the BlackBird to make better use of his slurry by stimulating grass growth to achieve five cuts per year. The new technology has enabled him to start spreading as early as March. This has increased the volume of slurry being spread and the nutrients being applied to the soil, which has reduced his need for bought in nitrogen.



Vogelsang trailing shoe system BlackBird 12m

More precise slurry application

His first cut silage had a dry matter percentage of 37.2 and protein of 14.5. "The quality of the silage is improving each year and we are learning how to make improvements. A big improvement has been the investment in the spreading technology. The new trailing shoe is much more accurate than our previous splash plate applicators. It parts the grass and puts the slurry beneath the canopy which is where we need it," he says. The BlackBird has Vogelsang's new more precise spreading applicator which has a skid shape to apply slurry more evenly. "We can see the difference in the field, the lines are uniform and there is no slurry left on top of the grass," he says.

Yields increased

Every aspect of the farm has benefitted from the new spreading technology. More slurry is applied to the soil rather than being applied with a splash plate on top of the grass or crop. This has improved the soil and stimulated growth leading to 20 percent increase in grass yield. "We can see the improvements in the quality of the grass too. ME is up to 12.1 MJ/kg and the D value is now at 75," he says. There are also environmental benefits associated with the new trailing shoe. "Put simply, it doesn't smell anything like the old splash plates used to and that means less ammonia is going in it to the atmosphere and more nutrients are going into the soil to be made available to the plant," he says.



Smalmstown Farm owner Robin Fisher



BlackBird

Operating is faster

Tractor operator Nathan Maughan is part of the Smalmstown team and is the main user of the BlackBird. He has found it easy to set up and use, but believes the real benefit is the consistency it offers. "It is neat, and I find it satisfying to see the lines the shoe leave as it parts the grass to apply the slurry. I travel at 5 km/h using a HiSpec 3500-gallon tanker with the applicator mounted on the back and the whole unit is steady and stable which enables more accurate application," he says. It is also faster at applying slurry than his previous splash plate. "It empties the tanker 30 percent faster than before and that has meant we can apply more and cut back on our nitrogen fertiliser applications by 10%," he says.

Better slurry application – better forage

The net benefit of more accurate and consistent slurry application is being seen in the quality of the forage. Mr Fisher's nutritionist has tested the silage and seen improvements in the values since the farm moved to multi-cut silage system. The mix of Italian rye grass for the two-year leys and perennial rye for the five-year leys is providing the farm with both quality and quantity. "I feel like we have the balance right and we are making best use of the natural fertiliser we have, which is reducing our requirement for bought in substitutes. This is driving farming efficiencies and also providing better forage for the cows," says Mr Fisher.

The new system results in more milk

The result is a herd that produces an average of 10,200 litres per cow, per year with 4.5 percent butter fat and 3.45 protein. "What you put in you get out. We have invested in making sure that the naturally produced nutrients are stored and applied as effectively as possible and this has translated into better quality forage and more milk," he concludes.

Advantages of the BlackBird®

- Liquid manure spreading below the crop with up to 12 kg coulter pressure for optimum nutrient utilization
- Unique placement of the liquid manure due to flow-optimized trailing shoe for minimum contamination
- Outstanding distribution accuracy due to perfectly matched components [DLG test report 7030]
- Liquid manure at all outlets within 2 seconds [DLG test report 7030]
- Better penetration into the soil due to new trailing shoe shape for lowest nutrient losses and long service life

Mentioned Vogelsang products

[BlackBird: The complete solution among trailing shoes](#)



Mentioned Vogelsang products

[ExaCut ECQ: Heavy Duty macerator with best accuracy](#)



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