

Slurry separation proves to have financial benefits

Austrian slurry and irrigation equipment specialist Bauer is forging ahead with its range of tankers and separators which now includes a machine producing 'green bedding'. FarmWeek's **Chris McCullough** travelled to Voitsberg to see the machines in action.



■ **COMFORT:** Green bedding has increased cow comfort and reduced hock damage. Defra continues to allow the use of green bedding but only on the same farm it was produced.

A NEW wave of interest in slurry separators is currently travelling around Northern Ireland as more farmers discover the benefits of the process.

Austrian slurry equipment manufacturer Bauer has been around since 1930 starting off producing simple pumps to carry slurry from lowland Austrian farms to those up the hills.

Its founder, Rudolph Bauer, then went on to develop a range of pipe couplings and the company quickly grew. In 2003 a management buy out took over Bauer which now exports to 90 countries worldwide and has ancillary companies based in 17 countries.

Slurry separators have been manufactured by the company for a number of years but now Bauer has gone one step further and has produced a separator specialising in making green bedding.

The technology from FAN Separator GmbH, a Bauer Group company, has been scaled to provide dairy enterprises with around 500 cows with new options for storage and utilisation.

The new BRU Compact has been developed from the proven BRU 1000 and BRU 2000 processing systems, which cater for large herds of around 1,000 and 2,000 cows. It mirrors the slurry and solids processing technology used in these systems but scaled to a size that makes it an attractive, cost-effective option for dairy farms with fewer cows.

"Our Green Bedding system, which produces a high dry matter material that must be used on the day it is produced, is ideal for herds typically of 100-500 cows," said Klaus Ferik, area sales manager at Bauer Group.

"The BRU is a continuous system, producing dried material with about 42 per cent dry matter that can be stored under cover for several days, and this provides the added cubicle bed management flexibility that very large dairy herds need."

The BRU (Bedding Recovery Unit) system operates in two stages: first, liquid is extracted from the solids contained in farm slurry using one of the heavy-duty, high throughput screw presses from the FAN Separator range. The liquid is pumped to a storage lagoon for application when appropriate by field tanker or a dirty water irrigation system.

Solids are extruded from the separator with a dry matter content of 36-38 per cent and then spend approximately 20 hours passing

through a composting drum, where a temperature of 65-70 degrees Celsius is maintained naturally. There is no external heat source so running costs are limited to the electricity consumed driving the separator and drum, and any ancillary equipment such as a pump.

The active aerobic composting process thoroughly dries the material and kills any bacteria that would

otherwise multiply during storage. It can then be used in generous quantities in cubicles to provide the ultimate in comfort for high-yielding cows.

All BRU processing equipment is

housed in shipping containers, which are delivered ready to be plumbed into the farm's slurry handling system.

The two largest systems have two containers – a 20ft unit for the sepa-

erator and control system and a 40ft version housing the composting drum. But the new BRU Compact has a shorter composting drum, so the entire system is housed in one 40ft container.

With more than 50 Green Bedding systems and a BRU 1000 installed on farms in Great Britain, Bauer has more experience of on-farm cubicle bedding production than any supplier of slurry management equipment.

Adrian Tindall, Bauer UK and Ireland sales manager, told FarmWeek: "We've installed Green Bedding separators on farms with just 120 cows and almost 1,700 cows, with a herd size of 200-400 cows being the most common."

"Users are delighted with the technique; they report increased cow lying times, which can translate into increased milk yield, and fewer ailments such as hock abrasions. They also like the way cows bedded on this material come into the parlour cleaner."

"Other big attractions are the cost savings and the lack of sourcing and delivery hassle that results from switching from bought-in bedding materials."

Defra says it will continue to permit the use of 'recycled manure solids' for dairy cattle provided farmers comply with certain conditions and follow best practice management criteria, which are being defined by industry stakeholders.

Bauer has also developed a compact separator with an output of around 5cu m per hour for cattle slurry and 7-10cu m for pig slurry and can be run at night on cheap-rate electricity to separate slurry into its liquid and solid fractions.

"We already have a comprehensive range of separators but the new Compact is a cost-effective option for dairy herds of up to 150 cows or so," said Adrian.

"Slurry separation is an established technique that eases storage demands and makes better use of slurry as a resource but it hasn't been available to smaller farms; the new Compact changes that."

The small size of the Compact – it weighs 420kg and measures just 1.3m in length by 0.7m wide and stands 1m high – means it is easier to install as part of a waste management system.



■ **RANGE:** Bauer is now supplying its poly-tank slurry and biogas digestate spreaders direct in the UK and Ireland. The Bauer poly-tank spreader range provides capacities from 10,500-litres to 24,000-litres with running gear, pump and applicator options to suit different applications. (FW24-100CM)

PICTURE:
Chris McCullough

Relaunch for popular Bauer slurry tankers

DUE to increased interest in its range of high specification slurry tankers Bauer is now offering direct sales to farmers and contractors.

The company says the tankers can be offered at more favourable prices but with service and parts support still available nationwide through Bauer dealers.

Bauer's range of tankers with their handmade polyester tanks provide a unique selling advantage in the UK and Ireland over competitors, an advantage that has already sealed a number of orders for customers in Northern Ireland. Each tanker is built to exact customer specifications, therefore providing an added benefit in choosing Bauer. Tankers with the steel tanks are also available in Northern Ireland.

With an increasing number of energy plants being built on-farm in Northern Ireland, plant operators are looking to Bauer tankers to transport the plant digestate as the poly tank is impervious to corrosion.

Adrian Tindall, Bauer UK and Ireland sales manager, told FarmWeek: "The market for large tankers with specialist application equipment is very competitive with a number of players involved."

"Dealing direct with the professional operators most likely to use our machines will enable us to ensure we provide the right features and specification for their needs, at prices competitive with other high-quality products."

Bauer tankers are available in sizes from 10,500

litres to 24,000 litres and are unique in the UK and Ireland for having a hand-made polyester tank mounted on a galvanised steel chassis.

The heart-shaped tank cross section results in a low centre of gravity for good stability in hilly fields and on the road, while indents provide ample space for wide and large diameter flotation tyres to minimise soil compaction.

Using polyester rather than steel saves a significant amount of weight over a quality-spec steel tanker, as much as three tonnes with the 24,000 litres model.

The tankers are available with Bauer spiral or centrifugal high capacity pumps giving fast filling and spreading rates. A front-mounted filling arm is available for quick turnarounds at the slurry store and a cleaner working experience for the operator.

Application options include a double nozzle spray boom for surface spreading up to 27m wide, and a dribble hose applicator in widths from 9m to 30m with a macerating distributor, hydraulic drip stop and hydraulic folding.

A drag shoe applicator with working widths of 5.3m to 21m provides in-crop application of slurry or digestate directly on to the ground; a disc injector in 5.2m to 8m widths places liquid beneath the surface for minimum losses through evaporation and quick resumption of pasture grazing; and a spring tine cultivator injector is available for incorporating slurry or digestate into seedbeds.