

FARM MACHINERY

JOURNAL

July 2020 // Issue 75 // £4.20

www.farmmachineryjournal.co.uk

FIELD TEST

Electric Fendts

It's coming, but is the battery-powered e100 Vario really the future?

FARM SECURITY

HOW TO KEEP GUIDANCE KIT SAFE FROM THIEVES

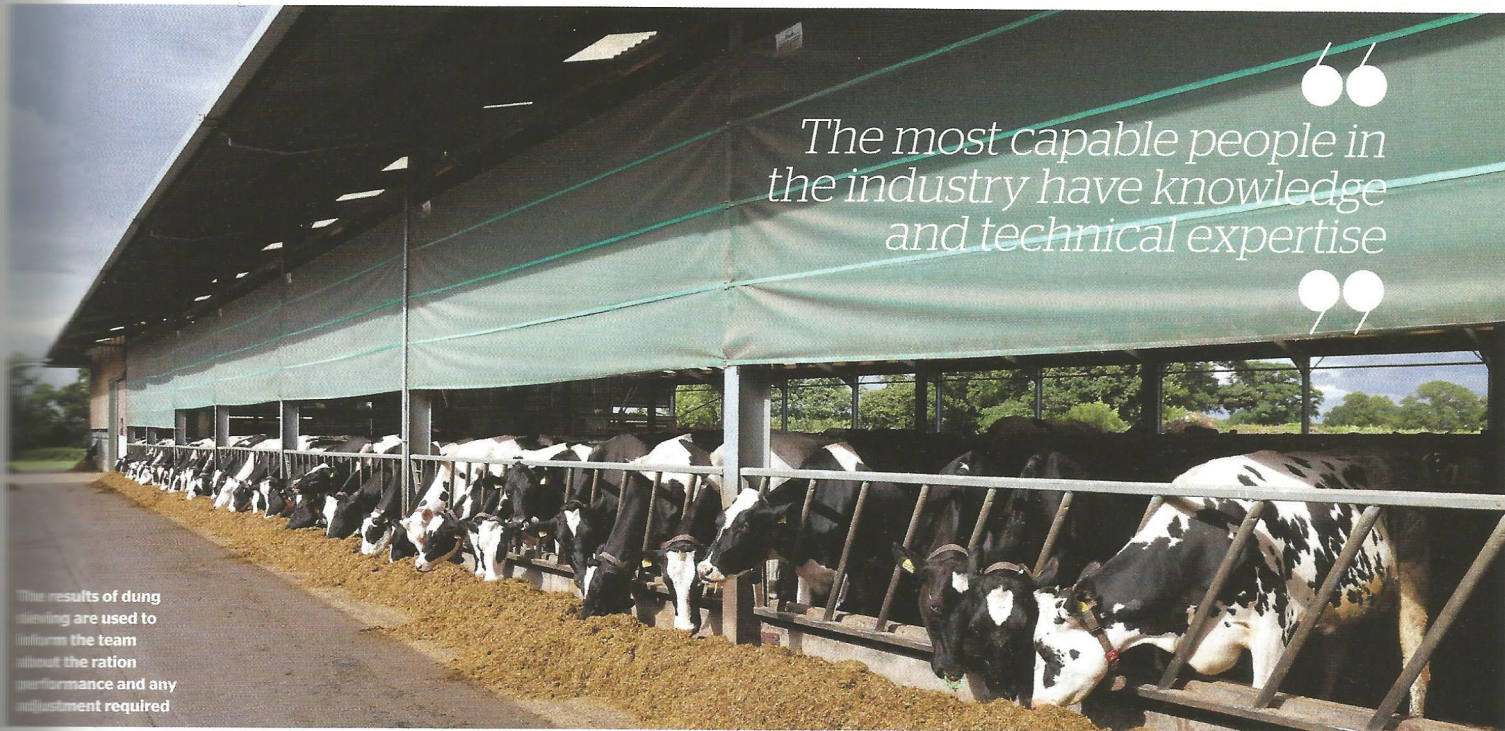


BEYOND CHEMICALS
CAN CASE IH'S ELECTRIC WEEDER
REPLACE THE ROLE OF HERBICIDES?

TWIN TRACKS
NEW CLAAS JAGUAR 960
& 990 TTs LAUNCHED

RUNNING REPORTS

JOHN DEERE 1534 RALEY & NH T5060 AT WORK



The most capable people in the industry have knowledge and technical expertise

The results of dung sampling are used to inform the team about the ration performance and any adjustment required

With modern feed manufacturing facilities and a new visiting Dairy Tech service that provides nutritional and farm-based feed supplement advice, Davidsons Animal Feeds is transforming its livestock operation, as *FMJ* discovered



Headquartered in Shotts, central Scotland, Davidsons has been producing animal feeds since 1977. Its founder and current chairman, Billy Davidson, started out working for a Glasgow grain merchant. However, in 1969 he founded the Davidsons business as grain merchants and haulage contractors.

Feeding frenzy

WORDS AND IMAGES DAVID WYLIE

It was said the feed trade during the seventies was controlled by multi-nationals and Billy saw an opportunity to offer a more local and personal service. His emphasis on customer service was central to the business from the start, and still is today.

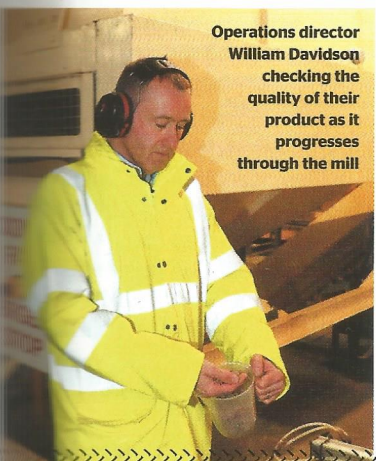
Their feed mill started as a small, simple manufacturing facility with a single manually operated production line. Over the years it has developed into one of the most modern feed manufacturing facilities in Europe and several acquisitions have resulted in Davidsons being the largest manufacturer of feed in Scotland. The company continues to grow with Billy's son and operations director William Davidson now at the helm.

Today, the chairman still has the same passionate drive for customer service as he started out with five decades ago, and his son William has been in the business from 16 years old. This family business success and growth is simply down to putting customer service first, providing high quality products and excellent service.

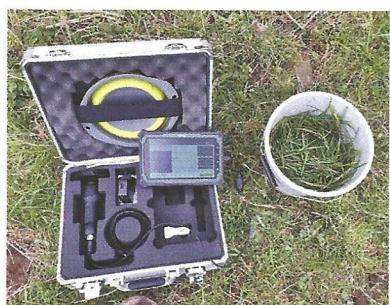
Their aim with the new Dairy Tech team is to provide a unique and innovative service for sustainable and profitable dairying.

Exciting innovation

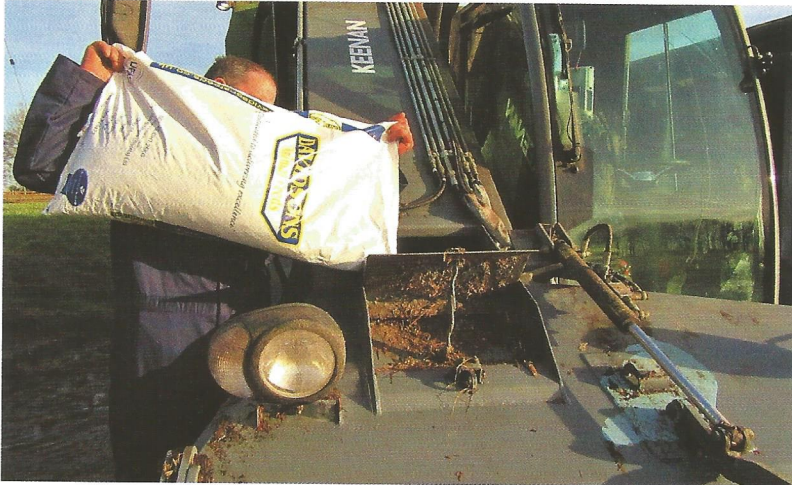
The Dairy Tech Team (DTT) is a new and exciting innovation for the company. After months of careful planning and intensive training, the company is



Operations director William Davidson checking the quality of their product as it progresses through the mill



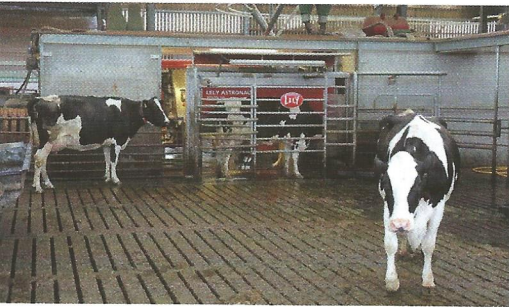
Above: NIR Technology being used to analyse the nutrient quality of fresh grass and other forages



Left: Heifer Rearing Nuts are tipped into the feeder, a product that carries the nutritional capacity to transform young calves into growing dairy heifers

Above: Bespoke ground meal being loaded into a mixer wagon as part of a total mixed ration

Below: Sam Hodgson (left) and James Bandle are just two of the team of technically qualified and experienced Dairy Tech Team members



confident it has assembled the most capable people in the industry who have the knowledge and technical expertise to offer an informed and holistic approach. Davidsons is said to be unique as an animal feed company in providing such a valuable service.

The DTT service offers a range of on-farm and remote services that are specifically tailored to increase cow, farm and business efficiency. The team has been developed to deliver excellent nutritional and farm-based advice, which will be relevant to individual farms and specific needs.

The team members are also said to be young technical advisors with a passion for all things dairy. They have spent over a year looking at different aspects of the day-to-day successful management of dairy farms, with intensive training in all milking technologies, feeding, herd health, housing, silage analysis, costings, transition management systems, metabolic profiling - this included working closely with Edinburgh University staff to optimise the service.

This new service provides back-up

Above: Pellet samples can be taken and checked at each stage to help ensure the highest quality

Above left: The Dairy Tech Team have the knowledge and expertise to offer informed technical support for the modern dairy sector

on farms as the team are all fully conversant with the latest farm technology and data packages, such as robot systems and interfaces allowing them to understand and interpret on-farm data to identify potential issues and where improvements can be made.

Their on-farm analysis is designed to provide constant monitoring of rations and cows through the technology available on the farm. Davidsons' own portable Near Infrared (NIR) technology test kits and the team's nutritional knowledge will help to deliver desired results.

On one farm the Dairy Tech team was tasked with improving feed efficiency across the herd, improve milk from forage and reduce overall concentrate fed through the robots. An assessment of the current nutrition of the

herd was conducted and as a result over a period of six to seven weeks alterations to the total mixed ration (TMR) and robot feed curves were made, with a 3kg reduction in average concentrate consumed in the robots, improved milk constituents, body condition score of cows and culling rates across the herd. The savings

across the herd are in the region of £4500 per month.

The team was also brought in and tasked with improving milk yields across another herd after poor performance following depressed yields over a two-month period. The team assessed the nutritional requirements of the herd, assessed data and cow signals information to build a clear picture of where improvements could be made to reach the farm targets.

Changes were made to the base ration and complemented with a high-specification Davidsons compound for feeding through the robots, which improved the number of visits to the robot, rumination levels and reduced fetch cows. As a result of changes

We have taken a great step forward by providing this unique service for profitable dairying



Left: The latest and biggest high-performance raw materials mixer unit installed in the mill. The older, smaller unit can be seen on the right

Feed mix is delivered by diet feeder to supply a total mixed ration efficiently to cattle



made, yields have risen from a low of nearly 30 litres to now sit at a herd average of 35.9 litres over an eight-week period. The improvements for the herd are generating additional monthly income in the region of £9700.

Modern facilities

Davidsons Animal Feeds is said to have some of the most modern technical manufacturing facilities in Europe. As William Davidson explained during our tour of the mill, this is down to continuous investment to improve the mill, which is completely automated and managed by just two experienced staff to ensure all feeds are mixed correctly and exactly to 'spec' of what was ordered. Constant monitoring of raw materials is undertaken, and samples taken from every load that is received, which is then analysed on-site as part of their strict quality control.

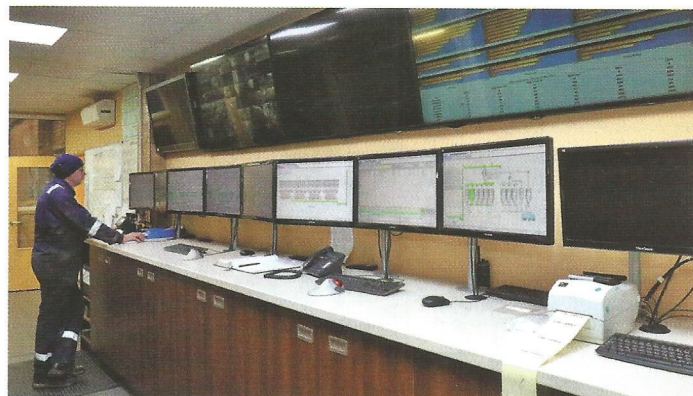
The company has the ability to use different pellet press tooling, which can be changed in just five minutes to produce a different sized product to meet individual customers' needs. And during 2008 they invested in the largest pellet press to be installed in UK. More recently, a bigger high-performance raw materials mixer unit was installed.

Once the individual products have been fully processed they travel via a conveyor system to the final bag-filling and storage area. From here the product is bagged and palletised, stored or loaded with forklift trucks or loaded from an overhead gantry into their fleet of trailers.

In another large storage area a nine-tonne Liebherr L514 wheeled loader is used, fitted with a quick-hitch and a large capacity grain bucket to quickly load the tipping

Right: The mill is completely automated and managed by just two staff to ensure all feeds are mixed correctly

Below: Pellet press tooling can be changed in just five minutes to produce a different sized product



Above: Two large discharge points feed high quality raw material products into the mill silos

trailers or stockpile materials in segregated bays.

The company collects most of the raw materials from source, which means they are in complete control to meet customer demand and delivery schedules. From individual order placement, a product can be produced in 24 hours and be ready for dispatch within 48 hours, with a guaranteed shelf life of three months. With their own fleet they deliver 95 per cent of their products, the other five per cent being delivered by haulage partners across Scotland and the north of England.

As a result of the ongoing investment in new technology, plant, training and services, Davidsons is said to have gained an enviable reputation for its commitment to its customers with safe, sustainable and high quality feed.

"We are very excited about the formation of our new Dairy Tech Team," says William Davidson. "As a family company we have always held a belief that the strength of our business lies in the dedication and skill of our people. We feel we have taken a great step forward in service for both our existing and potential customers by providing this unique and innovative service for sustainable and profitable dairying."

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