In the MAGAZINE

ISSUE 1 2019

> ACHIEVE MORE FROM YOUR FEED

DAIRY & BEEF FEATURES

WHERE IN THE WORLD IS KEENAN?

KEENAN an Alltech company



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Welcome to the first edition of KEENAN's In the Mix magazine. Each quarter we will share with you a variety of newsbytes spanning different areas of the business, including on-farm success, country focus, employee spotlights and advancements in supporting sustainability.

Spring is a particularly busy time for our farmers, with their primary focus on setting up the farm for a productive year ahead. This opens up many opportunities for KEENAN to help these farmers achieve their productivity goals and ensure farm profitability is maximized.

To share your on-farm stories, please contact Aoife Murphy: amurphy@alltech.com.

All the best,

Matt Higgins
General Manager
KEENAN



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The Southern Cape is one of the largest milk-producing regions in South Africa. This area has long been dominated by auger mixers, both vertical and horizontal, and as such, farmers can be hesitant to buy into the idea of a different mixing action in an unfamiliar mixer wagon. This hesitancy, however, gave Alltech South Africa a great opportunity to show farmers that KEENAN machines provide superior mixing action, are highly reliable and come with the

Innovation:

The South African team wanted to get KEENAN diet feeders on as many farms as possible and put together a plan to organize a machine demo roadshow.

Once the KEENAN diet feeder was delivered to the first farm, the team made it possible for other farmers to borrow the machine.

Before the KEENAN arrived on each farm, shaker boxes and manure washes were completed to measure their manure consistency and feed efficiency. The machine then arrived on the farm with all the diets already loaded on InTouch. After three days of using the KEENAN, the manure and feed tests were run again to compare results. Full KEENAN loading and production reports were also completed and discussed.

Solution:

Since launching the demo road show in mid-January, the machine has been to seven farms — and has been a huge success. When run against and compared to other types of auger mixers on the South African market, the KEENAN feeder has come out on top every single time,

outperforming them in speed, mix quality and consistency.

Impressively, six of the seven farmers reported that, without a doubt, the next mixer they buy will be a KEENAN — and three of them are looking to buy either early this year or as soon as they have sold their old machines.

Additionally, InTouch has been highly effective at improving the accuracy of loading, even in the short periods of time the machine is mixing on each farm. Other farmers in the region are eager for their chance to try the KEENAN machine, which will travel to at least another 20 farms in the coming months.



of 150 cows on a block of 135 hectares. A pig enterprise with 420 sows also runs alongside the dairy business, keeping the Ezanno family busy all year round.

In 2012, the Ezanno's purchased their first KEENAN diet feeder, a 20-cubic metre MechFiber360. Until then, a forage wagon was used to distribute feed to the herd, but accuracy of feed out and time taken this time a 24-cubic metre MF380.

Daniel and Jerome commented that an increase in the number of knives and better positioning in their new model means that the quality of mix has been greatly improved, and a clean, even cut is consistently achieved. Equally, the increase in machine capacity has ensured that overloading is no longer a problem and ration quality is excellent.

with a butterfat of 4.3% and protein of 3.4%, we attribute this success to the consistent mix quality from KEENAN and the control which InTouch provides".

Equally, an impressive feed efficiency of 1.6 demonstrates the value that KEENAN and InTouch is bringing to the feeding operation on-farm.

The unique ability of the KEENAN MechFiber machine to mix very small quantities of feed has been a huge bonus on the Ezanno farm: "We can now produce a mix suitable for our calves and youngstock every

two days. Before we had a KEENAN we could not include straw in these animals diets. Since we introduced it. it has really improved our youngstock rearing system" states Jerome.

The KEENAN MF380 comes with an oil bath driveline which provides optimum lubrication of the main driveline and ensures that a long, trouble-free working life is

guaranteed. Daniel highlights how the "ease of maintenance and automatic greasing system means we now spend less time thinking about the machine which gives us more time to spend with our cows". The larger MF380 machine and subsequent reduction in time spent mixing has also decreased fuel consumption on the Ezanno farm.

MEETTHE INTOUCH TEAM

CATHERINE HEFFERNAN InTouch Manager, Alltech Ireland

Can you tell us about your educational background?

Coming from a strong agricultural background at home, I always had a very keen interest in agriculture, from a very young age — dairy, in particular. In 2014, I completed a level-8 agricultural bachelor's degree in dairy business in University College Dublin. This course gave me an in-depth knowledge of animal nutrition, business and herd health and equipped me with the necessary skills to enter the industry.

As part of my professional work experience, I spent a total of nine months working on two dairy farms, both with 900 cows. This was a fantastic experience, where I gained great knowledge of different farming systems. The scale was a huge eveopener, which encouraged my interest in the global dairy industry.

What is your day-to-day role at InTouch?

My current job role is InTouch Ireland Manager. I work closely with our team of nutritionists, who are located both in the InTouch hub and in the field. Our nutritionists offer several services, which we tailor depending on the system, for customers both with and without mixer wagons.

How did you first learn about InTouch, and how did you come into your position?

KEENAN is a well-known company that I was always familiar with growing up; I was already aware of their expertise in nutrition. After I completed my degree, I joined the KEENAN graduate program, which gave me a great insight into several different areas of the business, InTouch being one of them. The future of farming is moving in the direction of technology, linking nutrition and technology together, and offering more proactive solutions to customers. Therefore, I was excited when the opportunity became available for me to join this area, and since then, I have worked my way to my current role as InTouch manager.

Since your time at InTouch, what have you seen change?

I have seen an increase in customer numbers! Through ongoing surveys, we are constantly investigating our customers' needs and adapting our services. Also, the Alltech acquisition has, of course, brought about a big change and has given us a huge opportunity to work closer with industry partners.

How has Alltech helped to develop InTouch?

Alltech has given InTouch the support and resources needed to drive the business in a positive direction. With the integration of the two teams, we now have a suite of service offerings through our broad range of experienced staff, which allows us to offer solutions as a team like never before. All of the team are striving toward achieving the same results for our customers.

Where do you see yourself - and/or InTouch — in five years' time?

Working with and developing our progressive team of nutrition specialists and offering all solutions to more than 2,000 customers across the country. I want to help customers drive their business in an efficient and suitable

What are your hopes for the agriculture industry?

With agricultural technology and advancements rapidly developing, farm management will become simplified and much more data-driven. I hope we can utilize the agricultural technology that is out there — there are so many opportunities for growth! This will ultimately make farmers' lives simpler and farming more sustainable.





Alltech UAE secures million-dollar deal with KEENAN and InTouch technology

Paul McVeigh, Regional Manager, UAE/Oman

In the UAE, the importation of Saudi Arabian milk is at a lower price than the cost of production, due to both an over-production of milk in Saudi Arabia as well as a reduced market potential as a result of the Qatar embargo and the subsequent lower number of expats.

Despite this uncertainty for the dairy industry, Alltech continues to make million-dollar agreements in association with KEENAN and InTouch. The National Dairy Farm, located in Abu Dhabi, has been a key 2. Alltech customer since 2003.

Paul McVeigh, regional manager of Alltech UAE, was first introduced to the National Dairy Farm in early 2017. Upon McVeigh's first visit, farm manager Gerald Kiernan highlighted three main areas where he saw room for improvement:

- 1. Ketosis, which was measured through blood beta-hydroxybutyrate acid (BHBA) levels at greater than or equal to 1.2 percent, trending around 18 percent monthly.
- The percentage of fat cows
 that is, those with a body
 condition score (BCS) greater

- than 3.5, trending around 20 percent monthly.
- Milk production: Despite a genetic potential of more than 40 litres per cow per day on average for the herd, the herd production average was topping out at 39 litres per cow per day.

McVeigh assessed Kiernan's concerns and challenges and decided to implement the InTouch controlled energy, high-fibre dry cow program. Additionally, the National Dairy Farm is a long-standing Supreme International user, operating two diet feeders. With the incorporation

of Alltech products, McVeigh recognized a new opportunity to introduce a new KEENAN diet feeder on farm.

Having achieved improved herd performance within the first six months on the InTouch dry cow program, a prime opportunity arose for Alltech. McVeigh, along with Alltech European ruminant manager Florent Aubry, worked with Kiernan to also implement total replacement technology (TRT), rather than continuing with the local practice of partial replacement combined with the use of Monensin a polyether antibiotic.

Through incorporating KEENAN, Alltech and InTouch, the National Dairy Farm, achieved superior performance across all key performance indicators for metabolic disorders, herd BCS and milk production — including some record statistics for January, such as a production of 41.7 litres of milk per cow per day across 2,100 cows. Additionally, the farm saw improved returns of \$950,000 in 2018 over their 2017 figures.

"We now have a further opportunity for business development in the region with the use of InTouch feed management technology to measure, monitor and manage farm data," said McVeigh.

Additionally, the Alltech UAE team is working with the Alltech Crop Science team in North America to carry out a trial with an alfalfa supplier for the National Dairy Farm. The end goal of this partnership is for Alltech Crop Science alfalfa to be fed via the KEENAN diet feeder with InTouch feed management technology as well as the inclusion of Alltech TRT.

"No other competitor on the market can offer this package," said McVeigh. "We are adding value to multiple touchpoints of the farmer's operation, allowing us to further stand out from our competitors as a company of global coordinators adding value to the chain, from soil to soul."



THE RESULT IS IN THE MIX

ACHIEVE MORE FROM YOUR FEED

GOAT'S MILK: A PROFITABLE BUSINESS FOR NEW ZEALAND DAIRY GOAT FARMER JEFF HICKS

Renowned for its rolling green pastures and large dairy farms, Jeff Hicks' dairy goat farm is located in Matamata on New Zealand's North Island. With 27 percent of New Zealand's milk production coming from this region, Hicks's dairy goat farm produces milk that is sent for processing into infant formula, primarily for Asian and European markets. The highest of standards of cleanliness and hygiene are essential.

Dairy goat farming is a growing industry in New Zealand, and dairy goat's milk has become one of the "rising stars" in high-value niche products, which are experiencing strong and ongoing growth.

Brendan Bourma contract milks for the Hicks' on the farm, employing another three staff to work and milk. Six hundred Saanen goats are currently milked, with a total of 900 in the herd, including replacements.

"Saanens are high-yielding and easy to handle," says Brendan. "It's not surprising that the breed accounts for 85 percent of dairy goats in New Zealand."

The goats produce on average 2.5 kids in their first season, and

when the kids are born, it's crucial that they have their first drink of colostrum from their mother. The kids are then transferred from the housing and milking operation up to Jeff's farm, where they are hand-reared by Jeff and his wife, Karen.

"They stay with us for three months," says Jeff, "and go back down to the milking operation when they have been weaned off milk."

A premium price for goat's milk

The goats start milking when they are a year old. Goat's milk achieves a premium price in New Zealand. A litre of milk at the present time equates to €1.24, compared to a litre of cow's milk, which is currently worth 32 cents. So, it's crucial that these goats are achieving maximum production levels.

"We get 644,000 litres on average from 600 milking goats per annum, and the average yield is 3.7 litres per goat per day. One goat produces 1,100 litres annually. Although this might not sound like much, as we have already seen, goat's milk receives a premium price," says Jeff.

It's very important to understand that goats are 'browsers,' not 'grazers,'"

explains Brendan. "You have to be very slick when feeding them, or they just pick and sort the feed."

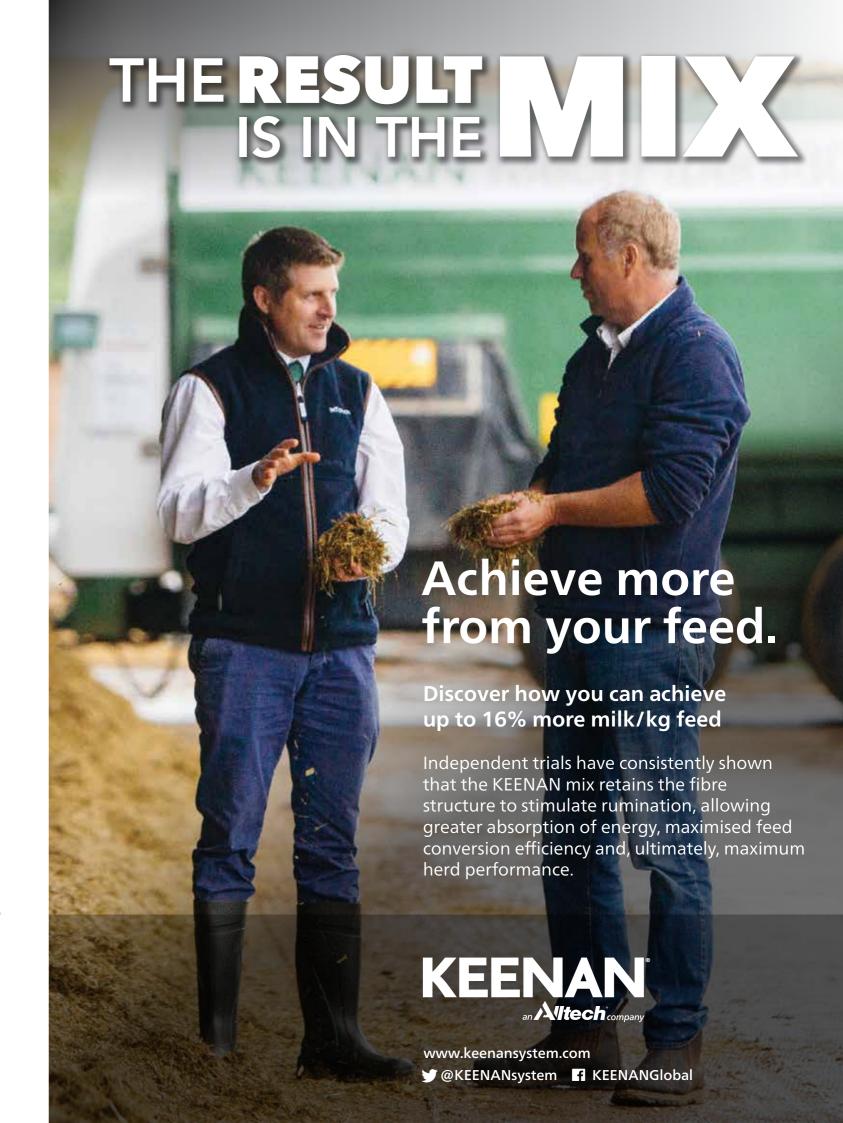
This had proven to be a problem for the farm, as Jeff initially had a tub mixer that was not producing the correct ration structure and, without nutrition support, this was a worry.

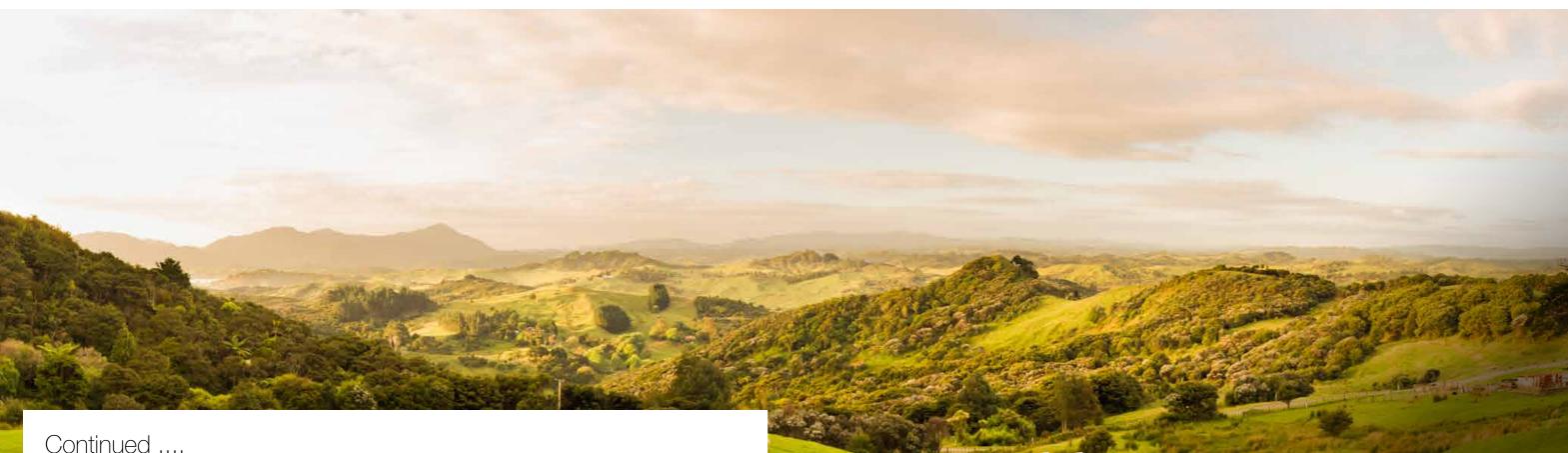
"It's essential that the ration is chopped to muzzle width, which is approximately three to five centimetres. If not, then the ration is just left, and there is a lot of sorting," explains Jeff.

Feeding system changed

"We were zero-grazing when we had the tub, and also buying in grass," says Brendan. "Milk yields were not what they should have been, and the co-operative we sell to in Hamilton, a city in the Waikato region of New Zealand's North Island, was insisting on a high-quality and consistent product; this was creating a problem."

Jeff reached out to InTouch nutritionist Seamus Callanan to assess their on-farm challenges. Seamus advised Jeff that using a KEENAN diet feeder to produce a total mixed ration (TMR) could suit the feeding habits of his goats.





"In 2015, I bought a KEENAN MechFiber320Eco, and the goats were presented with the new ration, which had an immediate effect as the milk yield and quality improved. We've increased production by 40 percent, which is a fantastic result!," said Jeff.

The herd is milked through a 48-stall rotary milking parlour. They're fed twice daily and, becaused they are housed, the ration is also pushed up twice daily.

Seamus formulated the following rations for the herd.

"The diet costs \$1.26 to feed 2.6 kilograms per milking goat per day dry matter intake, or 48 cents per kilogram dry matter," says Seamus.

"The goats love it! It was a masterstroke for Seamus to add molasses to the ration. It's sweet and sticky, and the KEENAN produces a TMR that's exactly the correct chop length for the goats to browse," says Brendan.

"We are saving money, as we are not buying in forage and not feeding concentrates. Fertility has improved, and we are looking to expand the herd by up to 40 percent!"

Less feed waste with KEENAN and InTouch

The KEENAN diet feeder is fitted with the unique KEENAN controller, which automatically adjusts to the number of goats being fed, avoiding over- or underfeeding. Performance data, such as milk yield, is measured.

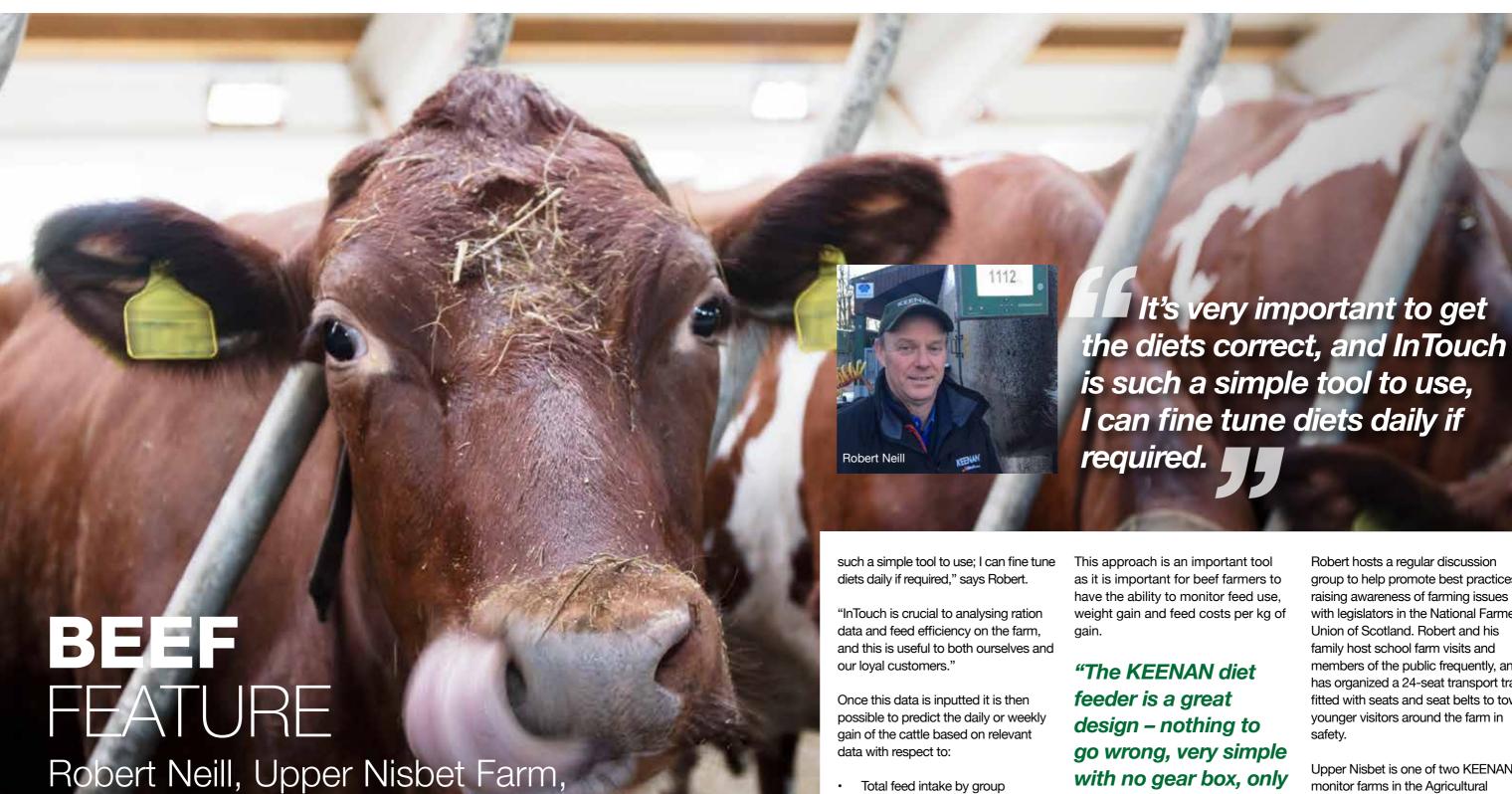
"It's been so beneficial to our work here. It guides us through the correct loading procedure, mixing time and ingredients quantity."

I can come into the house and check what is happening, see how the diet is performing, and if there is a problem, I can get in touch with Seamus and be assured of a rapid reply. We have less wastage, more milk and a very healthy herd," says Brendan.

Feed loading order Fresh weight (kg) Dry weight (kg) Water 0.70 0.00 Cane molasses 0.37 0.28 Straw (wheat) 0.05 0.04 Kibbled maize 0.72 0.63 Wheat distillers grains 0.45 0.40 Grass silage bale 0.50 0.23 0.53 0.47 Canola Lucerne silage 0.50 0.14 Maize silage (average quality) 0.60 0.45 TOTALS 5.42 2.64

We are saving money, as we are not buying in forage and not feeding concentrates. Fertility has improved, and we are looking to expand the herd by up to 40 percent! "The KEENAN seems to be the answer to feeding goats, and as this is a growing and profitable industry here in New Zealand, we could certainly recommend any farmer to buy a KEENAN as it acts as crucial part of the business."

5 17



"Monitor, measure and manage everything that's controllable, then act upon the conclusions"

Farmer's Weekly "Farmer of the Year 2017" award winner, Robert Neill says this is the secret of his success.

Jedburgh, Scottish Borders

A loyal KEENAN customer since 2002, Robert rears and finishes 1.000 head of beef cattle on his 600-acre tenanted farm in the Scottish Borders. Fat cattle daily live weight gain is carefully monitored, by running them through

a state-of-the-art crush with weigh bars fitted. Robert has also installed automatic weighing stations at water troughs in the cattle sheds.

This is all part of the plan to improve data on cattle performance. InTouch is a vital tool to the farming system at Upper Nisbet. "It's very important to get the diets correct, and InTouch is

- Group size
- Formulated ME density of the ration

The prediction of weight gain, feed costs per kilogramme of gain and feed conversion efficiency, the important driver of final margin, can be used to determine how the cattle are performing on a regular basis, and to consider if changes in feeding strategy are necessary, even before the cattle are next weighed to determine performance.

six paddles and two chains. We couldn't do such a good job without it!"

In a nation where more than 50 percent of people live in a city, Robert is passionate about engaging and educating schoolchildren and members of the public on agriculture and best farming practices.

group to help promote best practices, raising awareness of farming issues with legislators in the National Farmers members of the public frequently, and has organized a 24-seat transport trailer fitted with seats and seat belts to tow

Upper Nisbet is one of two KEENAN Engineering Precision Innovation initiative - Upper Nisbet is the beef project. This initiative is driving growth and supporting innovative ideas to help farmers and business owners become more profitable and sustainable.

The Agricultural Engineering Precision Innovation Centre has funded an additional KEENAN diet feeder mixer on Robert's farm with results from InTouch being carefully monitored and analysed.

EMPLOYEE SPOTLIGHT



GARY KELLY InTouch Technical Support

Tell us about your background.

I grew up in Borris, Co. Carlow and live ten minutes away from the KEENAN headquarters. In 2008, when I completed my Leaving Cert (Irish state exam) I started working for KEENAN. I completed a four-year Fitter Maintenance Apprenticeship through KEENAN at the Dublin Institute of Technology College.

Describe yourself in three words. Successful, happy and friendly.

What is your role at KEENAN?

I work as part of the InTouch team as InTouch Technical Support. I am the primary technical support for more than 2000 KEENAN and InTouch customers globally who are operating the KEENAN controller on their diet feeder. My responsibilities include working with farmers on a daily basis to ensure the KEENAN controller and InTouch feed management technology delivers the correct ration for their animals every day. My role requires quick action in terms of troubleshooting and establishing effective solutions to resolve any problems that may arise.

I am also heavily involved in the innovation side of InTouch and help to bring new ideas to the table, as well as testing new innovative releases of both the software and firmware before it goes live onto farm.

What do you enjoy most about working at KEENAN?

What I enjoy most about working for KEENAN is getting to deal with a variety of customers every day and meeting some of the customers when visiting them on farm.

I have also made some great friendships whilst working at the KEENAN factory and everybody works together and helps each other along. This has really excelled since KEENAN joined the Alltech family in 2016; engaging with our Alltech colleagues in Dunboyne and globally brings great joy when talking about the opportunities KEENAN and InTouch can bring to Alltech.

What do you find most challenging about your role?

The most challenging part of my role is that whatever the issue is, it must be fixed in the shortest amount of time possible. Our customers have cows to feed and farms to run, therefore they can't afford the for the KEENAN controller to be inactive or down. We have a motto in KEENAN to 'never miss a feed' and I always make sure to keep this at the top of everything I do for the customer.

What has been your proudest moment at KEENAN?

My proudest moment at KEENAN is when I qualified in my Apprenticeship – that was a proud day. When I first started working for KEENAN, I was scraping spatter off the machines. I then worked my way up through all areas of the production line, working in 'Right First Time', before being promoted to InTouch Technical Support Technician.

Can you describe your personality type (red, blue, yellow, green) and how does it benefit your job? My personality type is blue. I think this helps in my job role because I like to be reliable and accountable for my actions and determined to get things done. In my role, there is no room for negativity because in my role I am resolving problems and concerns over the phone with the farmer, there is no time for pessimism.

What are your hobbies outside of work?

Outside of work I enjoy playing hurling and football. I also play soccer for a local team in an astro-turf league. Outside of sport, I try and spend a lot of time with my girlfriend, Steph and our daughter, Mia.

Do you have a favourite quote? "Believe you can and you're halfway

What does success look like to you?

Success to me is supporting others.
Success is providing for my family – being a good friend, son, father and partner.





KEENAN teams up with plastic road company MacRebur to produce sustainable alternative to road plastic

KEENAN has supplied a
MechFiber300 diet feeder, equipped
with a KEENAN controller and InTouch
feed management technology, to
plastic roads company MacRebur.
The machine is being used to mix
granulated plastic waste with an
activator developed by MacRebur
to create a mix that is distributed to
asphalt producers around the world.

KEENAN attended MacRebur's recent open day to celebrate the opening of their new factory at its headquarters in Lockerbie, Dumfries and Galloway, Scotland.

"Quality is extremely important to us at MacRebur — we can't have any variability in our batches, so we need to make sure our product is consistent," said Gordon Reid, co-founder of MacRebur. "This is the main reason we chose KEENAN. In addition, the KEENAN controller enables us to use exactly the right amount of activator to create the correct blend."

KEENAN regional business manager Alistair Morton said that during initial discussions about collaborating with MacRebur, consistency of mix and the reliability of the machine were critical factors.

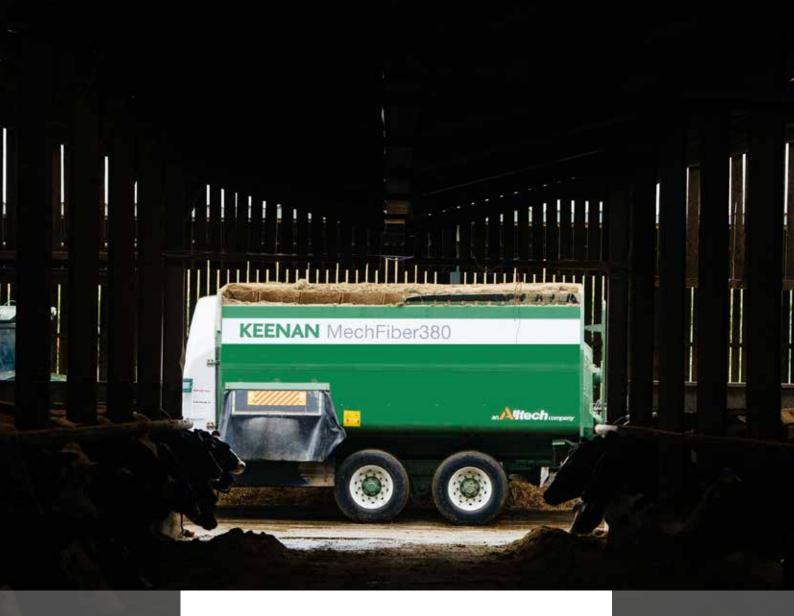
"As discussions progressed, we found that it was equally important to be able to monitor the consistency of the mix across the globe," said Morton. "The KEENAN diet feeder combined with InTouch feed management technology allows MacRebur to achieve these goals."

The KEENAN range of MechFiber machines use horizontal paddle action to produce an optimal mix that is never over- or underprocessed. The KEENAN controller uses InTouch technology to offer real-time performance measuring and support service. It also gives clear instructions on the order and weight of ingredients, leading to maximised mix quality and consistency.

MacRebur uses plastic waste that is destined for landfills or incineration and adds it into asphalt that is ready for road construction and surfacing. This helps to extend and improve the bitumen binder, the liquid binder that holds asphalt together. Intensive studies have revealed plastic roads to be more robust and flexible, improving the lifespan up to 60 percent. The company plans to take this new style of recycling global, using local plastic waste for local roads.

"KEENAN is proud to be working with an innovative company such as, MacRebur, to help produce sustainable products, derived from non-recyclable waste plastic, which aids in reducing the carbon footprint", said Morton.





SAVE THE DATE!

KEENANOPEN DAY

Tuesday, 18 June 2019 **11.00 – 8.00pm**Borris, Co. Carlow

