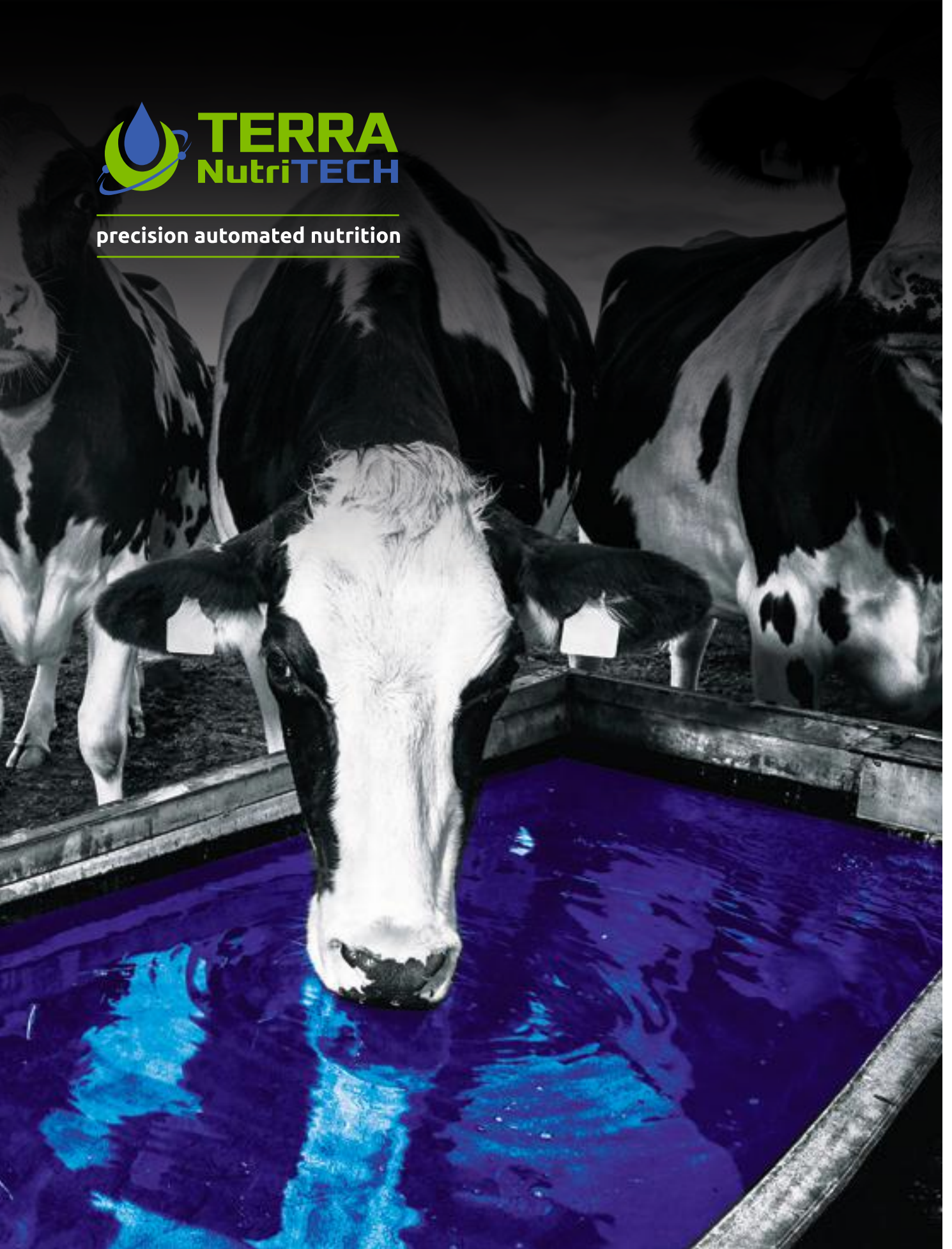




precision automated nutrition



Customer Report

2019/2020



## Contents

Welcome from CEO	3
Key Highlights	4
A Selection of Farmer Comments	6
Survey Results	9
Farmer Focus Group Comments	18
Case Study	20
About Terra NutriTECH	22

## Research Methodology

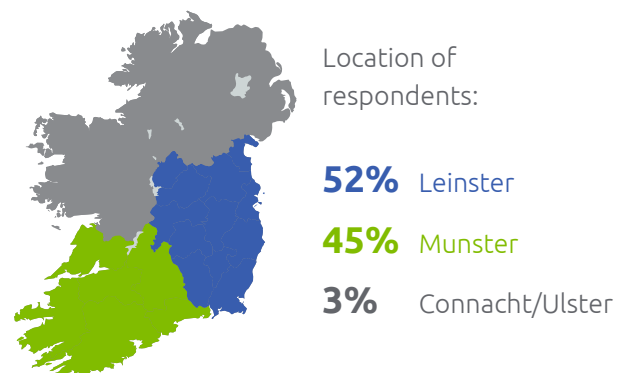
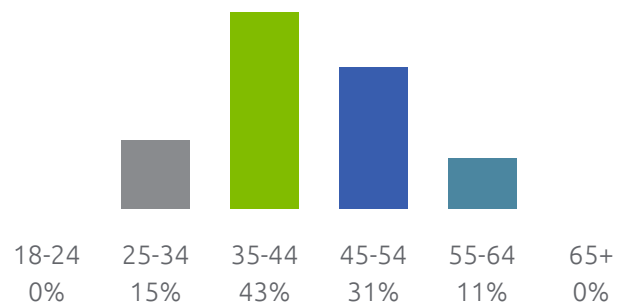
*ifac* Food & AgriBusiness was commissioned by Terra NutriTECH to conduct independent research with Terra NutriTECH customers. *ifac* carried out an online survey using a leading survey platform independent of the Terra NutriTECH team. The survey comprises of 126 respondents.

*ifac* is forty-four years in business, it is a co-operative owned professional services firm focussed on the farming, food and agribusiness sector.

*ifac* operates from more than thirty locations across Ireland, with more than 400 people serving 19,000 clients. It is Ireland's 9th largest Practice by turnover and largest by client number.

Of those surveyed 95% had dairy operations.

Over 58% of those surveyed are in the 25-44-year-old bracket with a further 31% in the 45-54 category.





# Welcome from CEO

Welcome to Terra NutriTECH's Customer Report 2019-2020. We are fortunate to work with progressive commercially aware farmers who were generous with their time in helping *ifac* compile this report and Terra NutriTECH are grateful.

Farmers sit at the centre of everything we do. That is why we commissioned *ifac* to conduct an independent assessment of how Terra NutriTECH is serving their needs.

Overall our customers are extremely pleased with the results from our system, both in the health of their stock and in return on investment. More than 7 out of 10 have seen a marked difference in herd health. We believe this is a result of our precision delivery system and our ability to custom make mineral mixes for any farm. This is reinforced by the fact that over 90% of farmers surveyed deem individualisation of minerals as being very important to them.

All respondents have reduced concentrate usage in their herd, helping with the most profitable metric on most dairy farms, grass utilisation. This is one of the reasons why our clients see our system as value for money.

While many view our system as a way to help reduce concentrates use, the overwhelming sentiment among our customers is how much our system has helped them throughout calving. With 87% saying labour has been reduced, critical during the busy February and March months, a further 4 out of 5 have experienced significant reduction in calving issues.

I would also like to express my thanks and pride in the Terra NutriTECH team, who have been singled out by our clients as always being there to help, with 100% of customers surveyed happy with our service levels.

This survey may help explain why more than 8/10 customers view the Terra NutriTECH system as value for money.

“ Our company was founded to help farmers deliver minerals automatically and accurately to help improve their stocks health. This technology has been further refined to allow real-time monitoring of the system from a phone app to give further control to the farmer. Our technology is unrivalled worldwide. ”

The last 12 months have been very exciting for our business winning multiple awards and being showcased globally as having world leading technology. With this in mind, and after strong interest in our system we plan to further expand to a number of international regions.

In 2019 we conducted a joint product trial with a leading international nutrition company which achieved excellent results on our trial farms. This new product will be available for the 2020 breeding season.

Our innovation will not be stopping here. We are developing new processes and technology based on our customer's feedback to further help our clients reduce cost, have healthier animals and save more time.

Thank you,  
Padraig,

*Padraig Hennessy*

CEO Terra NutriTECH

# Key Takeaways

Over  
**71%**

of farmers using the Terra NutriTECH system have experienced an improvement in their herds overall health

Over  
**87%**

of Terra NutriTECH customers have seen a reduction or significant reduction in labour on their farms since installing the system



Over  
**92%**

of farmers surveyed see individualised minerals as important or very important on their farm

**81%**

perceive the Terra NutriTECH system as value for money

**98%**

of our customers are happy with the level of on farm support we provide

**43%**

of farmers saw a decrease in concentrate use of over 10% with a further

**57%**

showing a decrease of less than 10%

**68%** of farmers have witnessed an improvement in herd fertility levels

**3 out of 4** of our customers have seen a reduction in Milk Fever in their herd



**4 out of 5** farmers have experienced a reduction in calving issues

**94%** of Terra NutriTECH farmers find our system easy to use

**100%** of our customers find our customer service team helpful with any queries or questions they may have with

**67%** finding the team extremely helpful

# A selection of farmer comments



## Farmer comments on cow health



*"Peace of mind that the herd are always getting the required minerals and mag at all times."*

*"Great system of getting minerals into cows and no waste."*

*"Shiny coats, going back in calf quicker."*



## Farmer comments on labour saving



*"No need for boluses, bag minerals, mag flakes, and have better results with Terra system. Less labour."*

*"It's helped reduce the workload on the farm and has been beneficial to the herd. Overall I would highly recommend this system."*

*"I was using lick buckets to supply minerals, I much prefer the Terra system."*

*"Great labour reducer."*

*"Others need to use it to appreciate the amount of pressure it takes off especially pre and during calving and AI."*

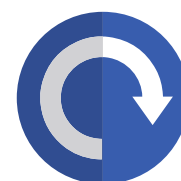


\*All farmer responses used in this report were captured online during June 2019.

“Overall the system helps improve my bottom line by reducing labour and improving fertility.”

“Vet bill is down considerably.”

“Paid for itself in 1 year. Don't see it as spending money on cows but investing money in them and getting a good return on investment.”



Farmer  
comments on  
**return on  
investment**



Farmer  
comments  
on  
**calving**

“No problems. Metabolic problems much reduced and calving is easier.”

“Great system for dry cow minerals. Minimal problems after calving.”

“Cow health post calving is excellent. ”

“One less job to do and I have healthier cows that hold condition after calving.”

“When cows get sick to calf they calve very quickly and clean almost instantly.”



“There is always someone there to answer your questions be it Padraig or Tom or members of the team.”

“Very happy with service provided and all the guys are very helpful.”

“New controller with touch screen improves from older button system.”

“Excellent service. Always at the end of the phone.”

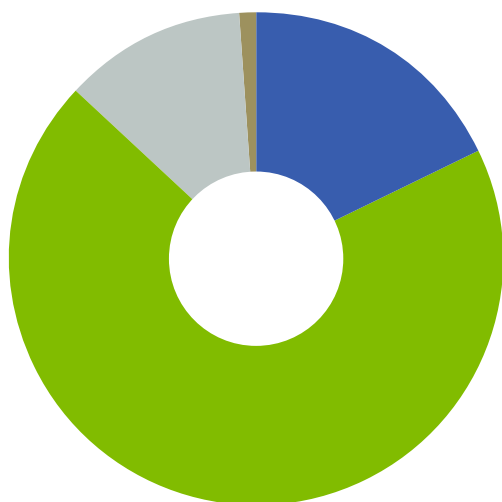


Farmer  
comments on  
**service**





# Has Terra NutriTECH reduced labour on your farm?



**87%**  
see a reduction in labour

Significantly reduced	<b>18%</b>
Reduced	<b>69%</b>
No change	12%
Increased	1%

Labour is a significant issue on many Irish dairy farms as cow numbers and farm size continues to increase in a post-quota environment. As Teagasc have highlighted in their *People in Dairy Action Plan*, innovative labour-saving technologies are a critical component to attracting and retaining staff on Irish dairy farms. Terra NutriTECH is part of the automation and labour-saving actions that many Terra NutriTECH customers employ, with 87% stating that using the system has reduced or significantly reduced labour on the farm.

Additionally, water leaks can be detected with the Terra NutriTECH system sending farmers an alert via SMS if there is low water volume or no flow. Again this saves time and money for farmers.

Farmer comments:

“Overall the system helps my bottom line by less labour and better fertility.”

“Great labour reducer.”

“Top class service and a very good mineral system. Less Labour. No dusting silage with minerals or bolus to cow.”

“The big help is it does the job so I or a member of the team don’t have to.”

“It’s helped reduce the workload on the farm and has been beneficial to the herd, overall I would highly recommend this system.”

**The main savings are realised through:**

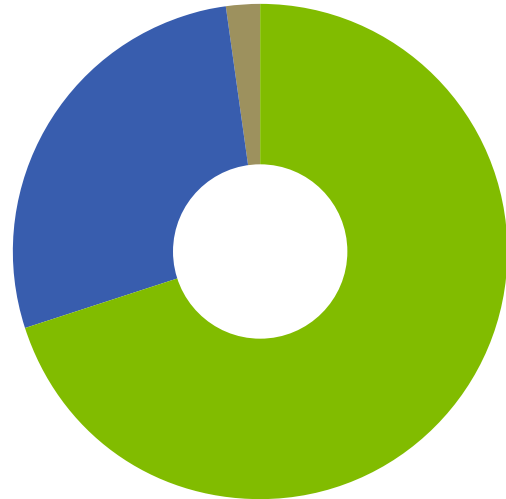
- Healthy cows and calves in the Spring
- No dusting of feed face / lifting bags into feed wagons
- No bolusing of stock
- Water leaks identified immediately

With the latest version of the system farmers can change livestock numbers and dosage rates from their mobile. On wet and cold evenings, for example, a farmer can increase magnesium dosage to avoid grass tetany.

<sup>1</sup> <https://www.teagasc.ie/media/website/publications/2017/The-People-in-Dairy-Project.pdf>

# Has the overall health of your herd improved since you started using the Terra NutriTECH system?

Yes	<b>70%</b>
Not Sure	<b>28%</b>
No	<b>2%</b>



**70%**  
see herd health improvements

Selection of farmer responses to survey:



**“Vet bill is down considerably.”**

**“Great system for dry cow minerals. Minimal problems after calving.”**

**“Shiny coats going back in calf quicker.”**

**“Cow health post calving is excellent.”**

**“One less job to do and I have healthier cows that hold condition after calving.”**

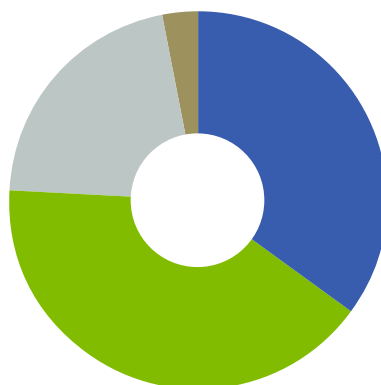


Balanced animal nutrition is vitally important. The Terra NutriTECH system is extremely flexible and can dispense a range of custom blends at any one time. Supplementation rates can be changed at the touch of a button to ensure optimal nutrition at all times even when changing diets.

We know that supplementation can be difficult to monitor and control. Farmers often mention that it is very easy to under or overdose when adding supplements manually which can lead to increased costs and decreased production. However, using the Terra NutriTECH system you can set exact herd numbers and dosage rates to ensure consistency which again helps with herd health.

## Has the use of the Terra NutriTECH system reduced instances of Milk Fever in your herd?

**76%**  
Milk Fever  
Reduced



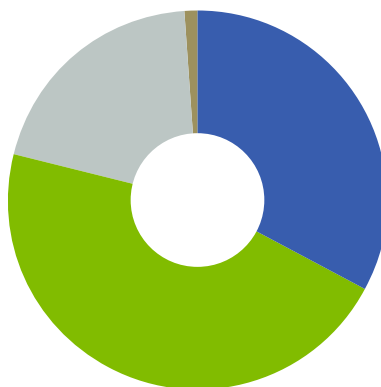
Significantly reduced	35%
Reduced	41%
No change	21%
Increased	3%

According to XL Vets<sup>2</sup> the management and nutrition of the cow during the dry period can have a strong influence on the susceptibility of individual animals to milk fever.

Terra NutriTECH is an excellent option to reduce cases of Milk Fever among your herd. 76% of those surveyed have seen a reduction in the cases of Milk Fever in their herd, through customised mineral dosage during the dry cow period.

## Has the use of the Terra NutriTECH system reduced the number of calving issues in your herd?

Calving issues  
reduced on  
**79%**  
of farms



Significantly reduced	33%
Reduced	46%
No change	20%
Increased	1%

Calving season on farm can be hectic and can bring complications. During and post calving it is vital that both cow and calf are well cared for in order to reduce the risk of loss.

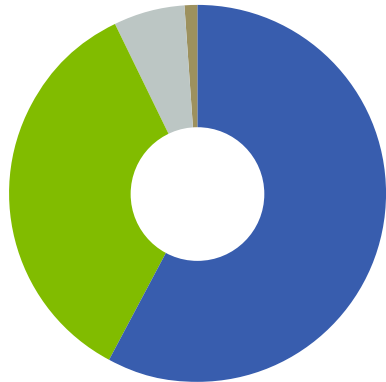
Terra NutriTECH can act as an aid to help mitigate the risks involved as 79% farmers surveyed have seen an improvement in their calving experiences with a significant reduction in calving issues reported.

### Selection of farmer responses to survey:

- Cow health post calving is excellent
- One less job to do and I have healthier cows that hold condition after calving
- When cows get sick to calf they calve very quickly and clean almost instantly
- Less retention of after birth
- Calves are healthier born. No calves dead at birth

<sup>2</sup> XL Vets Fact Sheet

## How important are individualised minerals to your farm?



Very important **58%**  
 Important **35%**  
 Fine **6%**  
 Not important **1%**

Minerals are one of the key elements to having a healthy and productive herd. Mineral composition varies from farm to farm and from year to year. Soil type, forage quality, weather conditions all impact on the availability of minerals to a dairy herd.

## Individualised minerals vital

### Selection of Farmer responses to survey:

- Peace of mind that the herd are always getting the required minerals and mag at all times
- No need for boluses, bag minerals, mag flakes, and have better results with the Terra system
- Great system of getting minerals into cows and no waste
- Gives assurance that cows are getting the correct minerals everyday
- A very good mineral system. No dusting silage with minerals or bolus to cows
- I was using lick buckets to supply minerals, I much prefer the Terra system
- Very accurate solution to individual cow management

Using the Terra NutriTECH system farmers can deliver the right minerals at the right time to their herd. The Terra NutriTECH system is the only one which can deliver individualised minerals to a dairy herd.

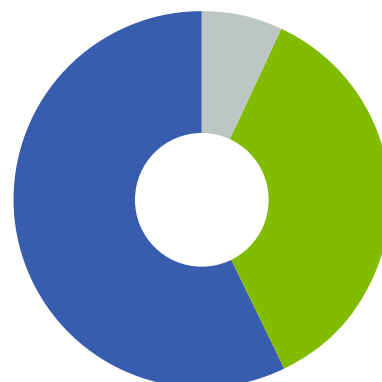
## Has the use of the Terra NutriTECH system reduced the use of concentrate in your herd?

Our system can help farmers reduce the amount of concentrate used on farms by delivering required minerals in a more optimised and effective manner. The Terra NutriTECH system delivers the right dosage of minerals and all farmers surveyed report a decrease in the use of concentrates on their farm.

A saving of €20/cow is attainable when 10% less concentrate is used in an average herd<sup>3</sup>.

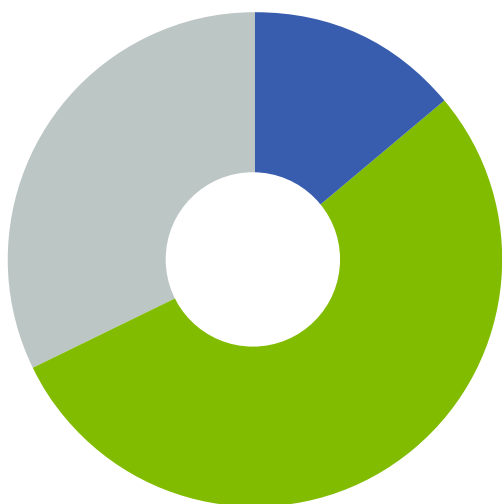
<sup>3</sup> Based on a ration with minerals costing €270/tonne with a cow being fed 650kg/year on average.

## Concentrate usage down significantly



>20% decrease **7%**  
 10 – 20% decrease **36%**  
 <10% decrease **57%**

# Has the use of the Terra NutriTECH system resulted in tighter calving interval and better fertility in your herd?



## Tighter calving and better fertility achieved

Significantly improved fertility **14%**  
 Improved fertility **54%**  
 No change **32%**  
 Increased **0%**



Selection of farmer responses to survey:



*“First breeding season using system, but repeat rate is lower than normal”*

*“Reduced empty rate by 8%”*

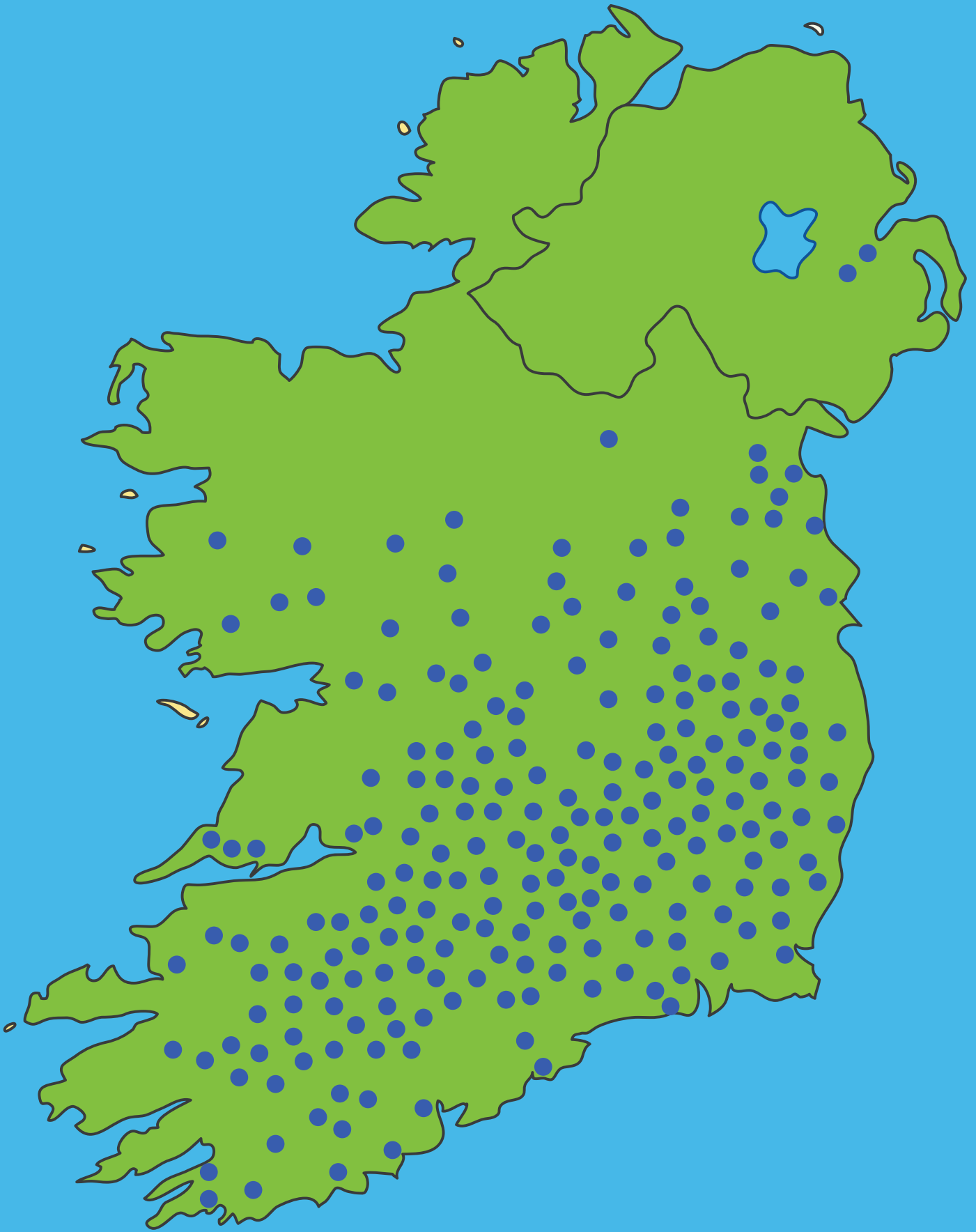


<sup>4</sup> [https://www.teagasc.ie/media/website/publications/2010/Dairy\\_Cow\\_Fertility\\_Proceedings\\_2012.pdf](https://www.teagasc.ie/media/website/publications/2010/Dairy_Cow_Fertility_Proceedings_2012.pdf)

<sup>5</sup> <https://www.teagasc.ie/publications/2019/win-whats-important-now-preparing-for-breeding-2019.php>

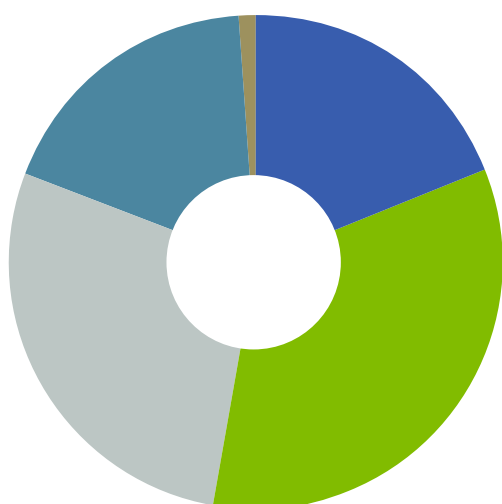
In a dairy context tighter calving interval is one of the key drives of both financial and environmental efficiency on farm. 68% of those surveyed have experienced an improvement in fertility levels within their herd since installing the Terra NutriTECH system on their farm.

According to Teagasc, reducing calving intervals can lead to increased milk production during peak grass supply months as cows have a longer lactation period. Teagasc have noted that “... poor fertility and poor calving patterns are significantly reducing profitability on many dairy farms due to reduced capacity for efficient production of milk from grass”<sup>4</sup>. In addition Teagasc have stated that each missed heat results in a loss of €250<sup>5</sup> to the farmer so all tools that can improve fertility are critical.



**MORE THAN 60,000 ANIMALS**

# Is the Terra NutriTECH System value for money when weighed up against reduced labour, increased fertility, better calving and peace of mind?



## Terra NutriTECH – value for money

Excellent value	19%
Good value	34%
It's fine	28%
Expensive	18%
Very expensive	1%

Putting in new systems is always a concern to a farmer. The users of the Terra NutriTECH however see real value for money when they become users of the system. As is clear throughout the report – reduced labour, increased fertility and better calving all show that the system is value for money and has a real impact on farm.

### Selection of farmer responses to survey:



*“Paid for itself in 1 year.  
Don't see it as spending money on cows  
but investing money in them and getting  
a good return on investment”*

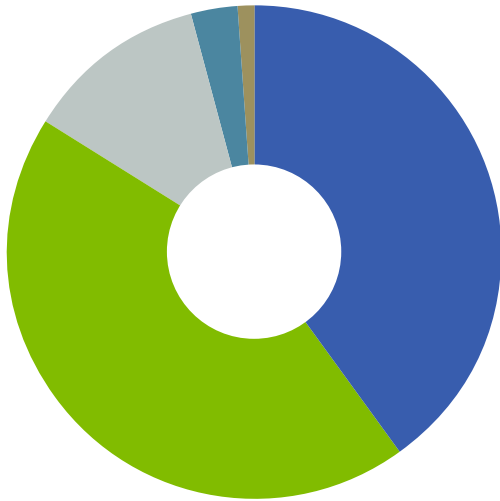
*“Others need to use it to appreciate  
the amount of pressure it takes off  
especially pre and during calving and AI”*

*“Great idea, glad I got it in”*

*“System in only three months....  
but so far very happy”*



# In your experience how user friendly is the Terra NutriTECH system?



Very user friendly **40%**  
 User friendly **44%**  
 Fit for purpose **12%**  
 Difficult to use **3%**  
 Very difficult to use **1%**

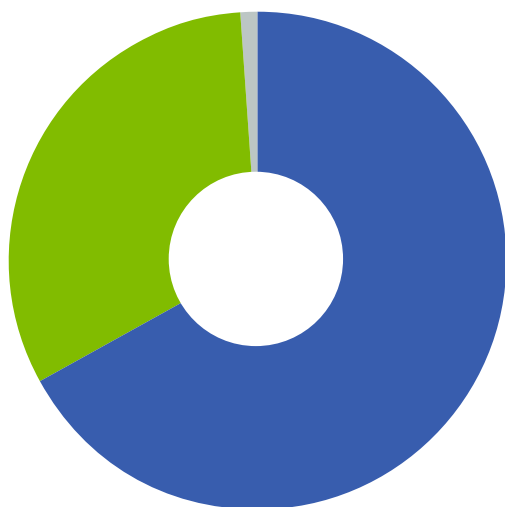
96% of Terra NutriTECH farmers find our system easy to use with 84% of Terra NutriTECH farmer customers find the system was user friendly or very user friendly. 2019 saw the launch of the next generation Terra NutriTECH system which ensures that the system is as easy as possible for farmers to use. A farmer's time is valuable and systems must be user friendly and effective.

**84%**  
 User friendly system  
 with great service





# How helpful are the Terra NutriTECH team when you need to engage with them?



Extremely Helpful	67%
Very helpful	32%
Somewhat helpful	1%
Not so helpful	0%
Not at all help	0%

## Selection of farmer responses to survey:

- Excellent system. Very good support
- Very happy with the system. I don't have to worry about it
- Excellent service. Always at the end of the phone
- Phone backup is first class
- Had small problems but fixed very quickly
- There is always someone there to answer your questions be it Padraig or Tom or members of the team
- Help is not far away if I'm in trouble
- A great company, always striving for better
- Always available
- Queries dealt with very quickly

The Terra NutriTECH team provide farmers with unbeatable customer service and this independent research has reflected this effort.

100% of customers' surveyed are happy with customer service levels with 67% finding Terra NutriTECH extremely helpful and a further 32% very helpful.



**Simplified communications through a customer friendly TNT App**

# Report from the Terra NutriTECH Focus Group

Overall the group were very positive about their experience with Terra NutriTECH. They trust the team and believe the system is delivering for them, in particular, the dry cow system during the winter.

They were positive about overall herd health improvements, customer service, reduction in labour and reduced issues at calving. They trust the solution and like being in control of mineral supplementation.

**Location:** Brandon House Hotel, New Ross

**Date:** 23 July 2019

**Participants:** Terra NutriTECH customers

**Facilitation:** David Leydon, *ifac*

The group were most enthusiastic about the benefits of the winter dry cow system:



**“Calves are born much healthier, are up and suckling straight away and the cow is healthy and up immediately.”**

**“Had a lot of difficulties with calving and fertility before using the system.”**



Improved fertility was also cited as something that has been improved considerably by using the Terra NutriTECH system:

“Fertility has improved dramatically.”

It also plays an important role in **milk fever and grass tetany**. A number of participants commented that there is a lot more grass tetany now because Ps and Ks have increased especially close to parlour where washings are going out regularly but by using the terra NutriTECH system they experienced,

“very little milk fever and grass tetany.”

Other positive comments from the group included:

“Part of the solution when it comes to improving herd health.”

“Shine on cows is amazing.”



**Reduced labour** was also a key benefit of the use of the Terra NutriTECH system according to those in the focus group. A number of themes emerged:

“Removing activities such as giving nutrient boluses and dusting minerals on silage.”

“Detection of water leaks.”

“Saving time and labour at calving when cow and calf were fit and well as opposed to slow and sickly.”

Critically they trust the Terra team and a key comment was that

“the reps have my best interests at heart and aren’t ramming minerals down my throat.”



As with all focus groups there was very helpful commentary on how to improve the system which the team in Terra NutriTECH were grateful for.

# “ I wouldn't be without the system at this stage ”



**Aidan Martin** milks 108 cows on a 75 acre platform in Glasson, Co. Westmeath. His land is made up of about 66% dry land with 33% being low land. All young stock and replacements are reared on a leased land block, with silage being taken from leased land as well. Aidan also uses a zero grazing system in the autumn to utilize grass from the leased land.

Originally a liquid milk producer, Aidan switched to a spring calving system four years ago. He began introducing Jersey and Norwegian red genetics to his existing Holstein herd, “We would have been a Holstein herd in liquid milk up to four years ago, switched over to spring calving then and started cross breeding with Jerseys and last year we put Norwegian reds on the cross breeds, a 3 way cross is the way we are going.”

Following the move to a spring calving system, Aidan wanted to have a tailor made mineral plan for his cows. “The mineral system is in, this would be the 4th season of it now. The main reason for putting in the system was to have a mineral package tailored to our own needs rather than buying bagged mineral and having one bag that does everyone.”



Main benefits I would be seeing is at calving time, no held cleanings at all, milk fever has reduced an awful lot



Aidan has seen the benefits of using the system when it comes to calving, breeding season, as well as the overall health of his herd, “Main benefits I would be seeing is at calving time, no held cleanings at all, milk fever has reduced an awful lot. I would say general herd health is better than it has been. Breeding goes quite well, heats would be very pronounced, they would be the main advantages I see to it.”

Aidan is not alone in his positive experience with Terra NutriTECH, his neighbours who use the system are also seeing benefits, “One comment that a few fellas have made is that when cows go in for the winter their coats tend to be very shiny and cows just look very well.”

The Terra NutriTECH system is now a key resource on his farm, “I wouldn’t be without the system at this stage, definitely not”.



Watch Aidan speak about the Terra NutriTECH system

<https://www.terranutritech.com/case-study-2.html>

# About Terra NutriTECH

Terra NutriTECH was founded after customers of Terra Services (Piping Business) kept looking for a more accurate way to put liquid minerals into the water system. Tom & Padraig searched the world for a solution that was precise, automated and easy to use. No such solution existed. So Terra NutriTECH was born!

Tom & Padraig Hennessys family farm is located in Moone, Co. Kildare. Both having grown up in a suckler and beef enterprise, their love of farming has always endured. It is on this family farm that they began Terra NutriTECH just 6 short years ago. In the past few years old silage pits and sheds have now made way for state of the art offices, storage and manufacturing facility all to facilitate their rapid growth.



In May 2018 TERRA NutriTECH was the overall winner of the **National Enterprise Awards** - a first for a Kildare company. This recognition was quickly followed a few weeks later by being chosen as winners of the **Google Adopt-a-Startup** program.

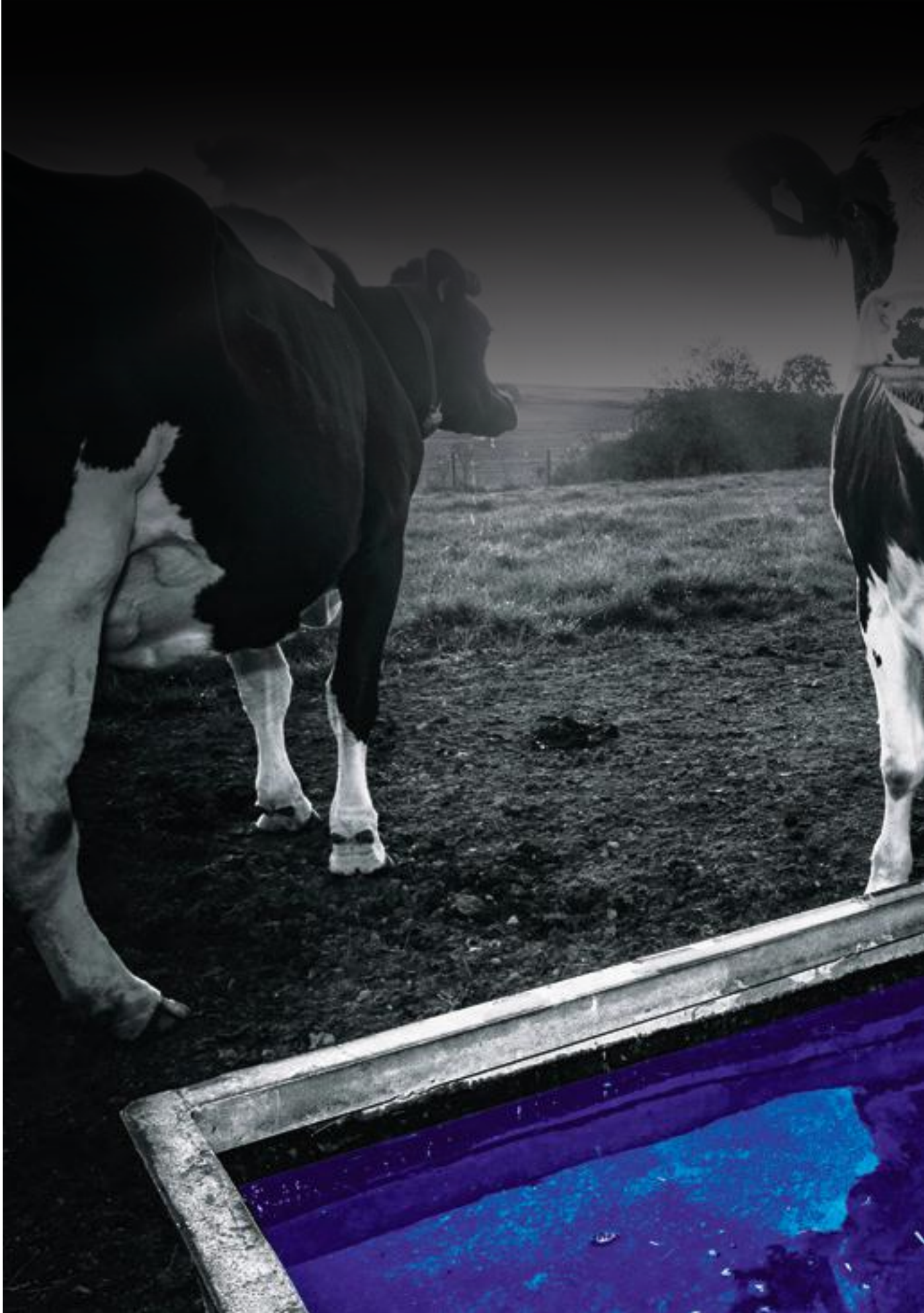
“ Our innovation will not be stopping here. We are developing new processes and technology based on our customer’s feedback to further help our clients reduce cost, have healthier animals and save more time. ”



In 2019 Terra NutriTECH was chosen from a worldwide base to take part in **The Pearse Lyons Accelerator** and was showcased at The One Conference in the USA as being a leading agtech innovator worldwide.

Terra NutriTECH is proud to be a liquid mineral partner to many of the most progressive farmers in Ireland today and aim to continue innovation in order to bring the best service and products and help our customers goal of being leaders in their field.





Terra NutriTECH  
Moone, Athy  
Co. Kildare  
R14 YV25

**p** +353 (0) 59 862 4193  
**e** sales@terranutritech.com  
**w** www.terranutritech.com  
**s**    

  
**TERRA**  
NutriTECH  

---

**precision automated nutrition**