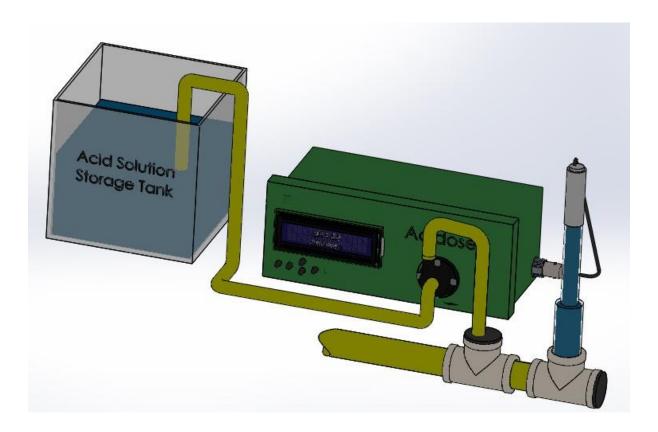
Acidose 1

The Acidose 1 is an innovative device that regulates water pH for a poultry house. It's been designed in accordance with a new acidic dosing method which has been implemented to reduce the need for antibiotics in poultry farming. The reduction of antibiotics in poultry farming has been shown to have positive effects on consumer health. The objective of the Acidose 1 is to reduce the antibiotic use in poultry farming significantly while increasing farming efficiency which will benefit both the poultry farmer and the processing company.



Agrify Solutions Ltd

The founders of Agrify Solutions Ltd come from a mixed background ranging from the agri-sector to enterprise computing to IOT with experience, having worked for multinationals based in Ireland, in bringing products to market both at an EU and worldwide basis. Liam O'Keeffe CEO is an experienced dairy farmer with additional training in bovine pregnancy scanning and artificial insemination. Liam is a tradesman and is a fully qualified fitter. Liam has taken a keen interest in farm safety since his serious farm accident in 2007, and has been involved in various national farm safety initiatives.

Tailpainter – Tailpainter Configurations





Config 1: Self Locking Barrier Video link here



Config 3: Crush Use Case Video link here

Config 2: Milking Parlour Use Case Video link here

AGRIFY SOLUTIONS LTD CONFIDENTIAL

Agrispread International

Agri-Spread International introduces "Automatic GPS Section Control" on its precision range of trailed spreaders. The Ballyhaunis, County Mayo based manufacturer has developed a purpose-built precision application technology system called Section Control which is a method of accurately controlling the even distribution and precise application rates of fertiliser.

By reducing fertiliser overlap and any gaps in the areas applied, exact amounts of fertiliser can be uniformly applied. This results in reduced input costs, increase in yields, minimising crop damage and environmental impact.

Agri-Spread is the first company in Ireland/UK to design and manufacture GPS section control spreader for fertiliser and lime/bulk products.

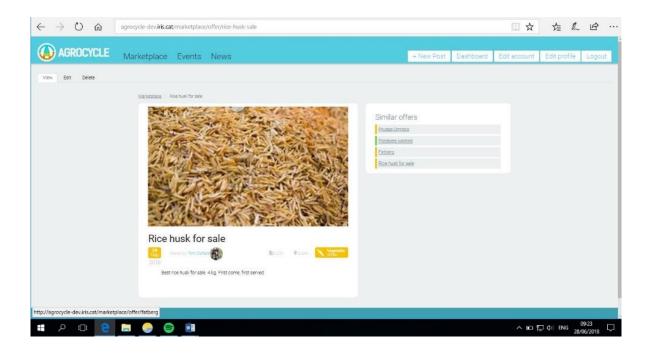


AgroCycle Marketplace

AgroCycle Marketplace, fatbergs, biocomposite cups and drinking-straws: AgroCycle is a UCD-led EU-China research programme focusing on recycling and reuse of agri-food waste, including using these wastes to replace plastic with bio-degradable material.

We will display biocomposite cups made from potato pulp and biocomposite drinking straws made from rice husks; as well as Ireland's first ever Fatberg (a very valuable, albeit disgusting, waste from our sewers).

We will also launch the AgroCycle Kids educational video and its big hit 'KID RAPPERS' will perform live; and AgroCycle Marketplace, a web-based platform for trading agri-food waste to add value within the 'circular-economy'.



Alchemy Utilities TD

The Alchemy Thermophilic Digester (TD) is a revolutionary biogas system that uses a next generation dry digestion process, improving the energy efficiency typically associated with traditional Anaerobic Digestion (AD) systems. The system is a modular and scalable solution for efficient conversion of organic wastes into biogas and high quality dry pelletised fertilisers.

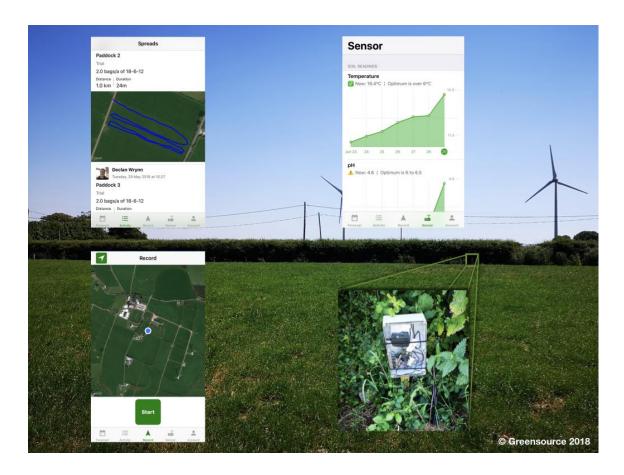
The Alchemy TD system is able to run on a wide range of organic feedstocks including 100% chicken litter.

The Alchemy TD produces 100 kW of electricity and 100 kW of heat through a CHP engine specifically designed to run on the biogas produced by the plant.



Anuland

Anuland is a start-up agricultural technology company, operating in rural County Limerick. It is developing a new farm management package that delivers data from soil in near real time. It operates across a single platform utilising IoT technology and machine learning to measure soil attributes, combining them with other data to return key in-field knowledge to the farmer. This knowledge focuses on soil and crop health and fertility allowing a farmer to know his soil and crop better. With this knowledge the farmer is able to make better informed farm management decisions improving his on-farm efficiency.



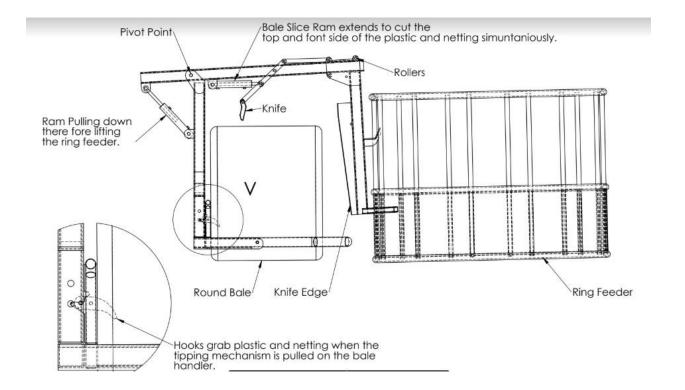
Applied Concepts

Applied Concepts are launching a brand new PTO powered screw air compressor which can be mounted and powered by either the front or rear PTO shaft capable of 300+ CFM. With its patent pending vario air-end technology, this compressor is the first in the world that can be mounted on either PTO with such a high compressed air output.



Blue Bull Machinery - The Easy Arm Auto

Blue Bull Machinery manufacture a range of feeding and grassland machinery. We have brought numerous new products to market which help the farmer save money, time and labour. We invented The Easy Arm – ring feeder lifter which lifts a ring feeder up and lowers it over a bale, helping to prevent back injury and livestock attack. Our new model of The Easy Arm called The Easy Arm Auto will cut and retain the plastic eliminating the need for the farmer to get out of the cab of the tractor. Helping to reduce farm accidents during feeding time.



C&F Green Energy

C&F Green Energy has employed the latest wind energy technologies, innovations and manufacturing expertise to build the ultimate machine to harness the energy of the wind – a permanent magnet, direct drive wind turbine with megawatt-inspired active pitch and yaw control – giving C&F the highest output and most efficient machines in their class.

C&F Green Energy is the global leader in small and medium-sized wind turbines. Designed and manufactured in Athenry, Galway, C&F Green Energy offers a range of wind turbines from 11kW to 250kW in output, and has installed 1,700 machines worldwide, with 60 million operational hours across the fleet.



Clare Engineering Slurry Gas Buster

We have designed an extraction system that will disperse the potentially fatal gases in farm manure which are generated when a farmer is mixing/agitating slurry. One of the gases produced during agitating is hydrogen sulphide, a clear gas that is heavier than air, which tends to stay low to the ground in the absence of air movement. Exposure to this gas causes confusion, disorientation, rapid collapse and fatality where the concentration rises above 700ppm. Our extraction system will disperse the air in the slatted shed and replace with clean safe air reducing the risk of accidental death.

[no image provided]

Cormac Tagging Ltd

Our innovation was born from our customers' problems. All calves born in Ireland must have a tissue sample taken for BVD testing. Our tissue sample wristband is worn on a farmer's wrist while tagging. It is a simple non evasive way of holding tubes while continuing to tag. The size of the tubes have proven problematic for farmers. The tubes often dropped in bedding, placed in overall pockets, left on walls or lost before reaching the lab. The band can also be used to store samples until ready for posting. This innovation is a simple solution to an international challenge.



Dairy Geyser Ltd

Dairy Geyser Instant Oil Water Heater - the ultimate answer to your dairy hot water requirements.

Uses:

- On demand water heating
- Automtic bulk tank cleaning and sterlisation
- Milking machine cleaning and sterlisation
- Feeding calves with milk replacer at desired temperature
- Power washing at high temperatures

Benefits:

- Up to 30L water per min
- Instand from ambient to 80 degree C
- Used in conjunction with pressure washer from ambient to 150 dgree C. Ideal for control of Clostridium and Johne's disease
- Essential to use high temperature water with chlorine free detergents to control T.B.C.'s and Thermodurics
- Easy installation and service
- Mobile/stationary units



DeadDock

We have developed computer-vision technology that discriminates between broadleaf weeds from grass. We use this technology to apply herbicides to the weeds individually and not the grass. In trials DeadDock has saved herbicide usage by over 90%.

With this machine we offer a Dock control service to dairy farmers.

We supply the herbicide, the innovative herbicide application machine and the trained operator to control the weeds on the farm, and we take care of all the paperwork.

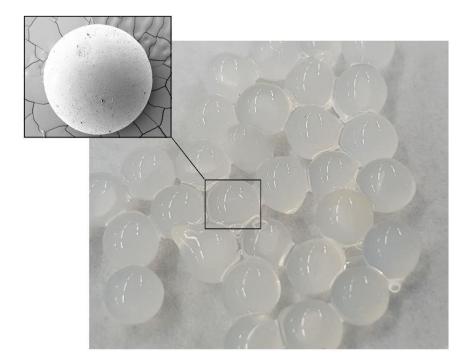


DIT Hothouse - Extractics - A Platform Separation Technology

Extractics is a platform separation technology that mines the "gold" in raw materials, co- and waste streams, used for the isolation and development of proteins from underutilised sources:

- Agricultural co-streams
- Waste streams (e.g. slurry/seafood)
- Natural raw materials (e.g. fruit & veg)

By 2050 the world's population is estimated to be 10 billion. There is now a shift toward sustainable, healthy, climate-smart protein sources. We are leading the way in identifying and capturing these functional/bioactive proteins with our technologies at DIT School of Biological Sciences.



e-Seed Trinity College Dublin

e-Seed TCD offers products that use microorganisms as crop seed inoculants. The e-Seed products will enable farmers to reduce synthetic chemical inputs while still maintaining full yield. The product is applied as a thin-film seed dressing to the crop, using standard seed dressing equipment, prior to distribution to growers. The inoculant is relatively cheap to produce and apply and does not contaminate the end product. The seed treatment works by enriching the natural beneficial microbiome within the growing crop plants, which improves the nutrient use efficiency of the crop, enabling greater utilisation of available soil and chemical nutrients.

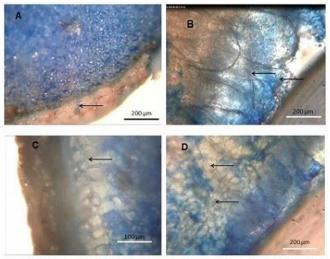


Figure: Stained longitudinal section of barley seed showing endophyte spore germination and penetration at: (A) 14 days, (B) and (C) 91 days, (D) 181 days after seed application. Arrows indicate fungal hypha within the outer layer of endosperm.

Farmeye

Farmeye will launch their Online Soil Nutrient Management Planning System (The NMP Portal).

The Farmeye NMP Portal is an online tool for Agri-Consultants, Dairy Processors and other Agri-food businesses to monitor and manage soil fertility on their client/suppliers farms.

Our easy-to-use, map based system can be used to demonstrate how, for example, the dairy co-op's suppliers are faring in terms of soil and nutrient sustainability.

In addition, given the impending CAP reform, mandatory NMPs will be required for all farms and our DAFM-approved system provides the means to digitally demonstrate compliance at farm level.



FreshGraze

Grazebot introduces Freshgrazing, an automated moving fence system which allocates fresh grass to grazing animals on a continual basis at a rate that ensures the entire sward is consumed before the fence moves again.

The cows don't walk or contaminate the grass they are about to eat and graze on fresh pasture.

Freshgrazing provides flexibility and eases grassland management leaving decisions easy to implement, improving grass production and utilisation, while leaving a digital footprint for farm to fork traceability, effective utilisation of mixed species swards promise to promote sustainable agriculture production.

Freshgrazing Cyper-physical Device will revolutionize agricultural production.



Go2Mill Ltd

The Go2Mill is a portable attachment for a chainsaw. It enables the user to make valuable planks and beams on location without the need to transport the tree to a traditional timber mill.



Grasstec Group

The ATV LifeGuard® is unique in being the only roll bar made that is flexible and has the ability to deform or deflect in shape if it comes in contact with a person's body or limbs - yet it is not able to collapse altogether. This means it can hold the back of the Quad up off the ground sufficiently to help prevent the rider from being crushed underneath. It has taken Quad safety to a whole new level, and has already proved itself. Designed and made in NZ, it has been saving lives around the world.



HerdInsights

HerdInsights have reached new heights by developing HerdInflight, our revolutionary drone compatible, estrus and health monitoring gateway.

In response to our existing customer's needs, HerdInsights have developed this solution so cows on large pasture based farms can be monitored more effectively and efficiently. Whether you have 5000 cattle on the plains of Argentina, 500 heifers off-farm in Texas or 300 dry cows in Australia, HerdInsights has the capability of monitoring these animals health and estrus status without any restrictions on range or accessibility.

With HerdInflight the sky is no longer the limit to managing your herd's health and reproductive performance!



Herdwatch Platform as a Service

The Herdwatch Platform as a Service (PaaS) is a fully customisable and flexible out of the box technology platform that can be licensed on a subscription by any organisation in the Agri-Food industry to provide a unique solution to their supplier, customer or partner farms.

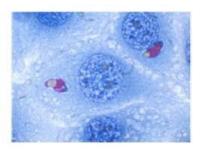


INDECOCCI

INDECOCCI is a poultry gut immunobiotic that is marine derived and demonstrates anti-parasitic activity for coccidiosis control in broiler production.







Poultry Gut Immunobiotic

Inspect 4 T/A HoofCare Direct

Based in County Cork, we are a farming family so we understand the needs of the Irish farmer. Our core product is our Inspect4 Rollover Crate. Whether you're a farmer, professional hoof trimmer or a veterinary practice you'll appreciate how the Inspect 4 Rollover Crate improves safety for both the operator and the animal and takes the heavy lifting out of hoof trimming. We also supply the highest quality hoof care supplies at affordable prices - with an easy, fast and economical service through our online shop.

Visit www.hoofcaredirect.ie your one stop shop for all your hoof care needs.



Little Red Design Studio

Little Red Design Studio is a little studio with BIG ideas. Specialising in early learning products, Little Red Design Studio's first product "Hazard Farm" is a children's book and play-mat combined to educate early learners about the dangers on a farm. Over 23 children have died on Irish farms since 2008, discounting the number of children seriously injured due to a farm related accident. Hazard Farm provides early learners with the tools they need to stay safe on a farm through the use of rhyme, sounds and main characters Billy and Lily who teach them how to be safe.



Lump Buster

The Lump Buster is an Irish designed and manufactured device used to rapidly and effectively break up solid blockages in slurry tanks.



Machine Eye

Machine Eye develops intelligent, pre-emptive safety systems for situational awareness around farm machinery and heavy plant. Through the application of innovative technologies, Machine Eye is providing a revolution in safety for agriculture, construction and related industries. Machine Eye provides protection against accidents involving machinery for operators, bystanders and everybody on the farm. Machine Eye has been developed by a group of electrical and electronic engineering students from Queen's University, Belfast.



Malone Procut 3000

Malone procut trailed mower comes in two sizes 2.6 metre and 3 metre. This robust machine is built in Ireland for tough Irish conditions.

It has a comer bed with sheer hub protection, semi swing steel conditioner tines, 400mm tyres comer drive line with an over run on the PTO and slip clutch protection.

The contioner has easy to use spreader veins all as standard. A unique feature is the super floatation with power down.

This mower is built for both contractors and farmers that want that clean cut.



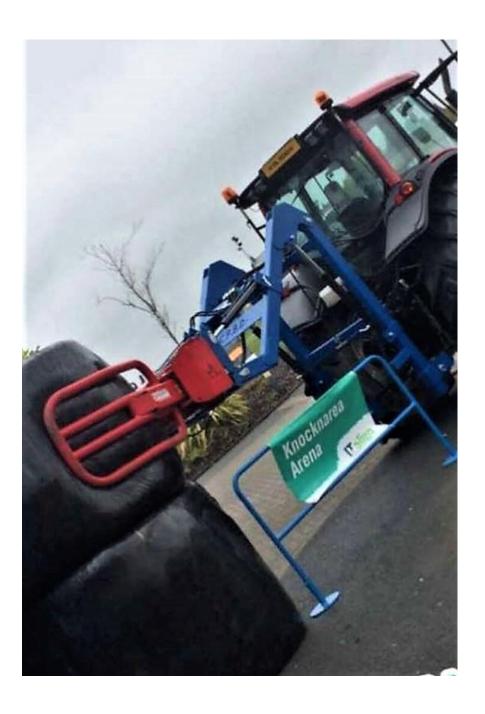
MicroFarm

MicroFarm empowers urban dwellers to become producers of their own food. It is a fully automatic device for the indoor home growing of microgreens and herbs. Many who wish to grow their own food are discouraged by the space, time, effort and mess involved. MicroFarm allows the user to grow their own fresh produce aeroponically and automatically, so there is no mess and no effort required. The associated MicroFarm mobile app creates a community of microgreen growers where they can share tips, advice and recipes, and enables every MicroFarm owner to become a brand ambassador.



Monte Loader

The Monte Loader is a concept which was designed to cut down on costs and improve efficiency on working farms. The Monte Loader is a fully registered design and is universal to any tractor via the 3 point linkage. It will take any implement using euro brackets. It can lift to a height of over 3 meters and is designed to safely lift one tonne weight. It is also small and compact allowing it to tuck neatly in behind the tractor for transport. It is also possible to tow a trailer while having the loader attached.



O'Donovan Engineering Safety Brake

O'Donovan Engineering is an agricultural engineering company with over 40 years' experience in the sector. We pride ourselves on delivering high quality products. The Safety Brake was an idea that originated during a routine calving on the test farm. It is designed to increase safety on the farm by reducing the kickback when an animal comes in contact with the gate. We felt this sudden swing of the gate could lead to injuries to both the farmer and others around the calving pen. This device could also be fitted to standard gates and on sheeted doors.

Safety of animal and operator is our main priority and the safety gate break keeps the animal secure and the operator out of harms way!!

Closes on dampening for safety

Opens with zero force

Dampening safety ram

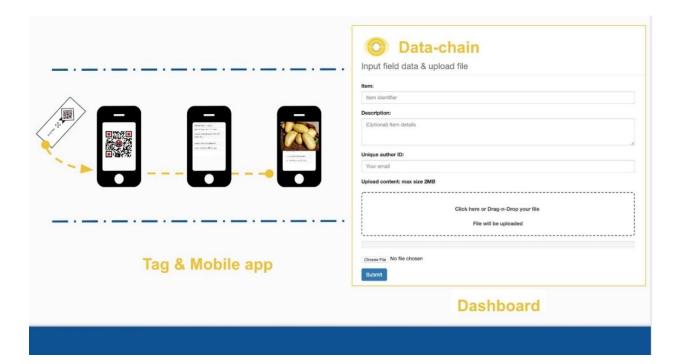
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Origin Chain

Origin Chain offers blockchain-enabled software solutions to the dual problems of real world asset authentication/proof-of-origin traceability and securing 1st-look insights into consumer needs in export markets. The benefits of our software include:

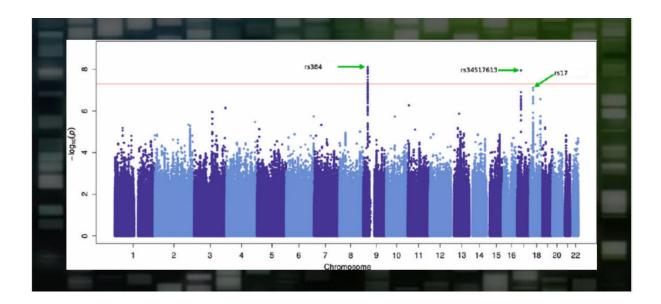
- The creation of secure product-traceability, compliance and brand authenticity in order to address consumer trust in new and existing markets.
- Sharing the costs with consortia participants, aggregating market insights, future-proofing market strategies, protecting business interests and privacy.

We are at the design phase of our software platform that will enhance the route to market for the Irish agri-food and manufacturing sectors.



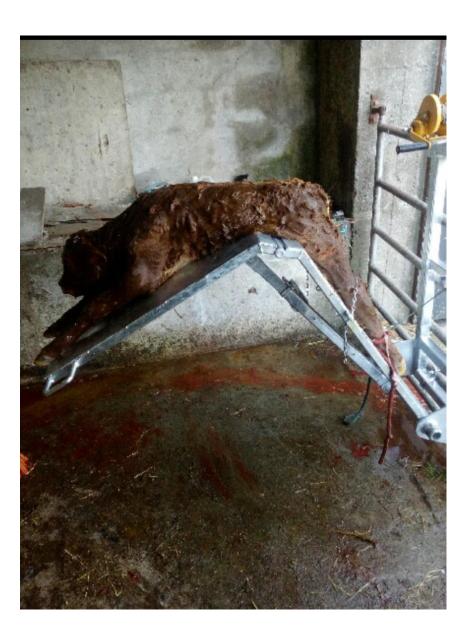
Prolego Scientific

Prolego Scientific have developed two proprietary algorithms for predicting performance and breeding values in thoroughbred animals and crops. They are successfully operating in the equine industry and have delivered a 20% improvement in predictive accuracy across a wide range of performance metrics. Currently their algorithms are used to predict outcomes such as optimal racing conditions for elite thoroughbred race horses and their susceptibility to heritable diseases. They are currently expanding into new verticals such as poultry and aquaculture where their algorithms will be used to improve animal health and welfare and improve commercial KPIs of interest.



Pro-Revive

The Pro-Revive Resuscitation Unit is developed to aid with the resuscitation of a new born animal that is born with a heartbeat but is not breathing.



Remote Signals Ltd

Remote Signals designs and builds sensor systems that combine wireless sensors with LPWAN (Low Powered Wide Area Networks) and cloud-based analytics - all in an easy-to-use, software-centric solution.

Remote Signals believes that by making sensors simple to deploy and their data easy to consume, customers will be able to deploy them in places they've never been used before.



S.C.A.L.P

This innovation is an implement that combs top of the ground field stones into rows and is very effective at doing so. These rows of stone in turn can be loaded into trailers by harvesters or front end loaders with beet baskets or something similar. Its forty six adjustable spring loaded pins also tills and levels the soil while rowing.

Stone comb is ideal for de-stoning land before reseeding or putting in a crop and it is practically maintenance free. Scalping, depriving the top ground of stone, can have major savings in use of fertilizer and increase yields.



Terra NutriTECH

Terra NutriTech is an intelligent mineral dosing system designed to help farms become more profitable through better animal health and innovative technology.

We work with partners to improve animal health using agtech and automation to accurately feed minerals in water.

Terra NutriTech offers a plug and play system to farmers that:

- Increases herd health
- Saves time and money
- Accurately dispenses minerals
- Reduces supplementary feed costs
- Maximizes profits

At Terra NutriTech, innovation is at the heart of what we do. We are the winner of the National Enterprise Awards 2018 and Google Adopt A Startup 2018.



The Calf Floor Company

The Calf Floor is non-porous, water tight and power washable.

It can be easily moved yet has the strength to take the weight of calves and farmers.

It has a non-slip surface. Waste falls under the calf floor from its curved cushioned surface and can be removed from underneath. It is soft to lie on and no straw is required.

Suitable for all calves up to 300 kg. Newborn or Sickly Calves.

The Heated Calf Floor has all the features of The Calf Floor plus a built in thermostatic heating system.



TOXOR: Water Quality/Toxicity Testing

TOXOR is a platform sensor technology aimed at the water quality monitoring (microbiological and chemical), fecal contamination detection, and indicative toxicity testing market. It is a low cost and rapid sensor for agri-food businesses and farming applications.

- Simple and portable
- Rapid, high throughput, quantitative and cost effective
- Bacterial contamination level and toxin strength (IC50)
- Whole toxicity testing /screening

TOXOR aimed application in agri-food and food processing, farming, in-vitro toxicology testing/toxicity test manufacturing, chemicals/pesticides, pharma/drug development/cosmetics, horticultural, brewing/distilling, seafood, environmental monitoring, waste treatment, all of which can affect the quality of farming and agri-food businesses output.

TOXOR BIOSENSOR TECHNOLOGY



Vahey Field Mouse

A trailed grass conditioner that is equipped with a gyro gear box.



Willbo Dual Head Scoops

Designed by Willie Bolton, a beef farmer, Dual Speed ratchet system has 1134Kgs lifting power, dual scoop fits all makes of head gates, no welding or drilling required, clamping system designed to take 50mm OD up to 80mm OD pipe box section 50/50 up to 80/80. Rectangle 60/40 80/60. A safety recoil built in if animal goes down. Available in either galvanise or plastic coating finish. Requires just one 27mm Spanner to erect. Optional Overhead attachment. Makes routine tasks easier and safer for both farmer and livestock.

