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APRIL 2023

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APRIL 2023
EDITORIAL

Matt O'Keeffe, Editor

LESS MAY BE MORE

Our attitude to change is contradictory, at best. Take the response from our farmer representative organisations to any suggestion that milk or meat producers could be paid to reduce or cease production. Would it not be better to accept that, some farmers, for their own reasons, may wish to consider options that include exiting dairy or suckler farming. A financially rewarding scheme that facilitates, even encourages, some farmers to retire or move to other enterprises should have marginal effect on those remaining in the dairy or cattle sectors.

Yes, there may be an argument that there is a potential opportunity cost for those remaining in the sectors because some of these farms, sterilised for bovine breeding would, otherwise, have been available for lease or purchase. That does not confer the right to block the ability of fellow farmers to make the best choices for themselves and their families. It is not a case of either supporting existing producers to remain in production or assisting those who are inclined to consider a viable exit package. Both strategies have merit. We accept that there are legal obligations to reduce emissions. Farmers did not negotiate those obligations, but they are now being regulated to manage their farms in a manner that will meet them. Nitrates reductions and cow banding are the 'soft' options instead of a cruder approach of mandatory herd reductions and the re-imposition of quotas. The ongoing contraction of the suckler sector will not be reversed. Those leaving do so for a variety of reasons including age, scale and, most of all, lack of profitability. If policymakers believe those farmers should be financially rewarded for their decisions, then the question must be asked as to whether the rest of the farming community has the right to prevent them from receiving that recompense?

The same logic applies to milk producers who might be tempted by an exit-support scheme. Processing co-ops are still accepting new entrants. There is no ceiling on production, apart from the ongoing barrage of regulatory restrictions. Yes, there may be less land available for those entering or remaining in farming, but that fact is not solely attributable to cattle or milk exit schemes.

The demand for land for alternative uses, including biodigester feedstock needs, solar panels, rewetting and biodiversity margins, among others, is set to increase anyway in the years ahead, leaving less land available for traditional milk and meat production. To attempt to block farmers from taking financially rational decisions because they may impinge on land availability is neither fair nor logical.

Change is coming fast. More land, more milk, or more cattle are personal decisions for individual farmers. Those decisions should not and must not impinge on the rights of other farmers to leave the sectors and, potentially, be rewarded for doing so. In any event, what food production economist ever suggested that, in a well-supplied market, more output, on a national or global level, delivers higher returns to individual producers? Less may be more.

We can take great pride in the enormous contribution Irish agriculture makes and has made through good and bad times to the Irish economy both in terms of sustaining rural communities and in supporting jobs and exports. That pride, however, cannot be a vanity at the expense of the financial wellbeing of individual farm families. When supply outpaces demand, the primary producer pays the price. The recent calamitous milk-price reductions will take upwards of €55,000 out of the net income of the average milk producer this year. That's economic reality. Everything else is vanity.

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Editor: Matt O'Keeffe **Deputy Editor:** Bernie Commins **Editorial Director:** Miriam Atkins **Machinery Editor** Noel Dunne
Production: Martin Whelan **Advertising Manager:** Brian Murphy
Commercial and Advertising Manager: Anna Douglas **Accounts:** Tricia Murtagh **Administration & Subscriptions:** Sue Nolan
Chief Executive: Rebecca Markey **Printing:** W&G Baird **Publishers:** IFP Media **Subscription:** €46 per annum
Irish Farmers Monthly, Castlecourt, Glenageary, Co. Dublin.
Tel: +353 1 7096900 . **Email:** miriamatkins@ifpmedia.com and berniecommins@ifpmedia.com . www.irishfarmersmonthly.com

Professor of dairy production at University College Dublin, Karina Pierce, is among the speaker line-up.

ALL ROADS LEAD TO CORK FOR AXA DAIRY CONFERENCE

Little Island, in Cork, is the location for the 2023 AXA Dairy Conference, in association with the National Dairy Council (NDC). This event, now in its fourth year, will cover the challenges and opportunities for the Irish dairy industry. Among the speakers are: CEO of ICOS, TJ Flanagan; professor of dairy production at University College Dublin, Karina Pierce; CEO of the NDC, Zoë Kavanagh; deputy president of the Irish Farmers' Association, Brian Rushe; vice president of the European Council of Young Farmers (CEJA); and director of Teagasc, Frank O'Mara. The conference will be held the Radisson Hotel, Little Island, on June 8.

Pictured at the unveiling of the 67th World Ploughing Contest Cairn of Peace in Ratheniska, Co. Laois: Philip McVeigh and Kevin Coogan, Laois County Council who looked after the groundworks; Paddy Kent who created the stainless steel plaques; Niall Kavanagh, McKeon Stone and Ger Mulhall, McKeon Stone who sculpted the cairn. Picture: Alf Harvey.

CAIRN OF PEACE

Last month, the National Ploughing Association officially unveiled the 67th Cairn of Peace monument in Ratheniska, Co. Laois, which celebrated Ireland hosting the World Ploughing Contest last year. Since 1953, countries that host World Ploughing events commemorate this by erecting a symbol of Peace. There are six mounted in Ireland currently, one in Kerry, two in Wexford two in Carlow and now, one in Laois. The Cairn of Peace stone was crafted by McKeon Stone in Stradbally.

LATEST ASA PODCAST

Jimmy Brett and Michael Miley have teamed up again for the latest Agricultural Science Association (ASA) 'Experts in their Field' podcast. This series is now in its third year and features key industry personnel from across the agri-food sector. The series has featured Pat Dillon, Con Lucey, Tom Tynan, Amii McKeever, Professor Frank O'Mara, William Minchin, Dr Mark Lyons and Dermot Ruane. The former RTÉ duo feature in the latest podcast, where Jimmy is interviewed by Michael on his early years in journalism and his career, to date, heading up the family business Brett Brothers in Kilkenny, which was established in 1940.

LEMON AND LIME

The introduction of the €8m National Liming Programme this year should encourage more of the valuable nutrient to be spread in the coming months. At €16/t, the subvention is a decent incentive to farmers who should anticipate fertiliser savings as well as increased productivity. If there is a negative aspect, it is that so many farms are excluded from participating in the programme. Farmers operating under the Nitrates Derogation are ineligible, as are farmers with stocking rates above 170kg livestock manure (N)/hectare. Other ineligible categories include those who intend to participate in an eco-scheme under the soil sampling and liming option. Various other categories of farm are excluded including commonage, forestry, Natura 2000 lands, NHA/pNHA designated lands, Annex 1 grassland and environmentally sensitive permanent grassland. That narrows the field of lime spreading somewhat. Nevertheless, for those who do qualify for the €16/t allowance, the opportunity is too good to pass up. Basically, the cost of lime spreading is almost halved with all the soil and productivity benefits adding to the cost effectiveness. The €8m programme, if fully subscribed to, is adequate to support the liming at one tonne per acre across almost 500,000 acres. It could be noted that those most likely to apply lime are in the excluded categories, but they are obviously not the target audience and are precluded for legitimate regulatory reasons, presumably. The minimal and maximum thresholds of 10 tonnes and 200 tonnes, respectively, should allow a 100-acre farm needing two tonnes of lime per acre to spread the required amount across the entire farm, for example. Verifiable soil tests are an additional cost and requirement.

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Are You Reseeding in Spring 2023?

Maeve Regan,
Head of Ruminant Nutrition, Agritech

As Irish farmers, we must be relentless in the pursuit to maximise the use of our unrivalled global advantage, growing grass. Alongside good grassland management, improving soil fertility and grazing infrastructure, reseeding is a critical pillar in optimising output from the grazing platform, be it for milk or meat production.

Reseeding a pasture should be viewed as a long-term farm investment over 8-10 years. The aim is to reseed 10% of the grazing platform annually, resulting in a completely renewed platform every 10 years. However, currently only 7% of the land area on specialist dairy farms in Ireland is reseeded annually (approx. 2.5% nationally if we look at the country's entire grassland area).

A low proportion of perennial ryegrass in the sward is costing farmers up to €300/ha in lost grass production during the growing season. While according to national farm survey data, increasing total herbage production when coupled with good grassland management, can result in an additional €173 profit for every extra tonne of grass utilised on farm.

The key benefits that come with reseeding are increased growth rates in the shoulders of the year, a sward that is approximately 25% more responsive to applied nitrogen, has a higher feed value and provides faster regrowth post-grazing or cutting.

In many situations due to increased demand in the spring, reseeding plans are postponed until autumn. However, this shouldn't be the case - the higher performance post-reseeding typically compensates for loss of performance during the reseeding process and the poor performance of the sward prior to reseeding. This coupled with the fact that growth rates elsewhere on the platform at this time of year will be at their highest.

Also, compared to autumn reseeding, spring reseeds generally allow greater flexibility for post-emergence weed control, with post-emergence weed control being crucial for long-term success of a sward.

For further advice on spring reseeding or choosing a grass seed mixture, contact your local Agritech Sales Advisor or visit www.agritech.ie.

A CORNY BEEF STORY

A possible case of what has been reported as 'food fraud' in the UK has set people wondering whether it, or similar, could happen here. In 2021, a South American corned beef product was imported into the UK and repackaged as a British product. It is understood that the only known outlet to which the beef was sold was Booths, a regional supermarket chain that prides itself on selling only UK-sourced meat products, unless otherwise stated. The National Food Crime Unit (NFCU) in the UK, a subsidiary of the Food Standards Agency (FSA) there, is investigating the circumstances. The episode only came to light in recent weeks and questions are being asked as to why it took so long for the matter to be made public and why the NFCU has not yet taken any legal action against the offending company. The company in question insists that the processed beef was inadvertently repackaged as British meat, though ignorance or mistakes in food labelling are not usually sound defences against possible prosecution. Now that the channels of trade between the UK and the North, as well as trade with the Republic through the North have been – again – reformatted under the Windsor Agreement, is there increased likelihood of food fraud becoming an issue on this side of the Irish Sea? Britain is busy establishing trade deals with countries across the globe, so there is surely need for increased and intensive scrutiny so that all food products entering this country through the North comply fully with labelling and provenance regulations, sometimes described under the more officious title of phyto-sanitary regulations.

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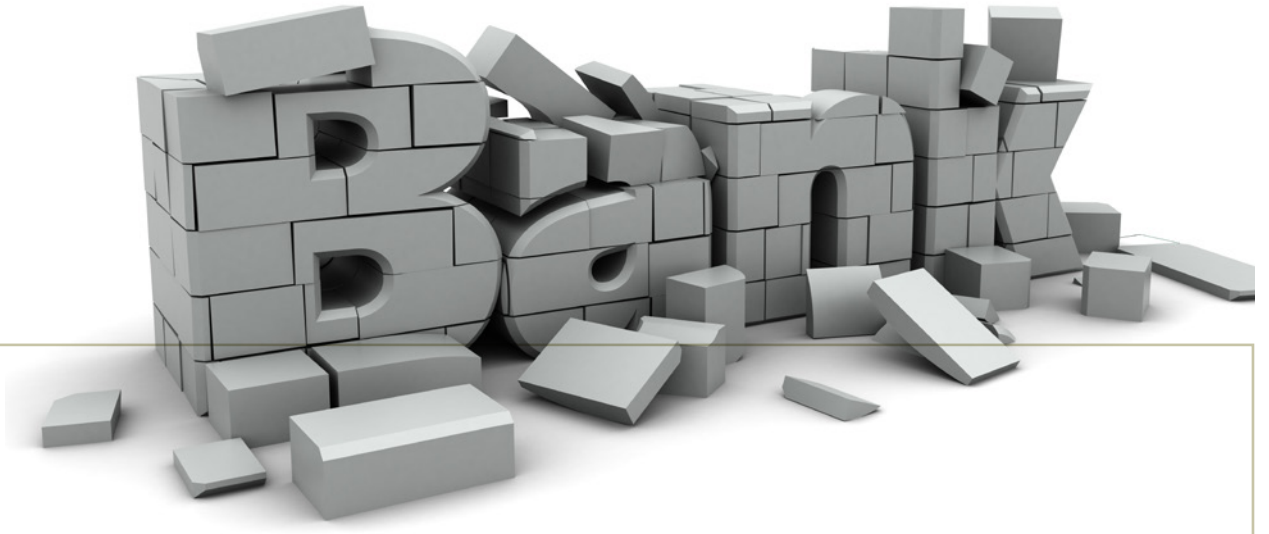


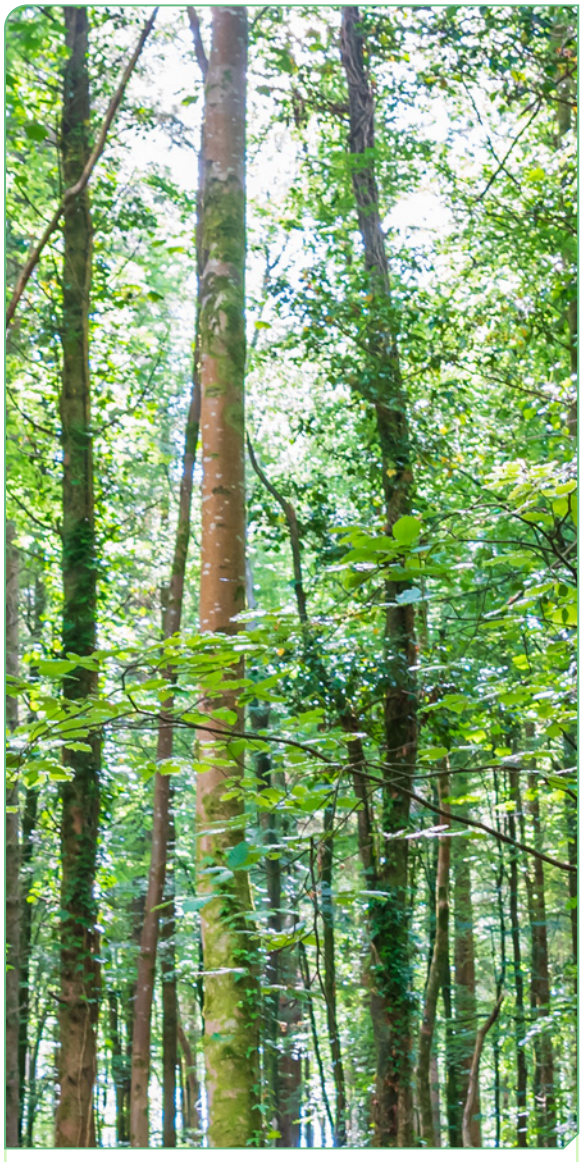
BANKING BUSTS BACK WITH A BANG?

A decade and a half ago, Irish people became overnight experts on banking, more specifically, on the reasons why banks go bust. Anglo, AIB and BoI all succumbed to a lesser or greater extent to the desire to drive profits at the expense of caution. Apart from the cost to the State and, ultimately, the taxpayer, there were also individual calamities that scarred so many people for the rest of their lives. As 'blue-chip' companies, many people bought and held bank shares, in AIB and BoI especially, over many years, in the reasonable expectation that the value and dividend returns would see them through their retirement years in relative comfort. The awful reality of their entire savings disappearing overnight was traumatic in the extreme. Right now, we are witnessing – at a distance and hopefully it will stay that way – another banking crisis. It started with a 'tech' bank in California, but quickly spread to Switzerland, the home of global high-powered banking. The reasons for this crisis are complex but, ultimately, it boiled down to the desire to make more profit by taking undue risks. Whether that, in turn, was due to chasing bonuses is not clear. In the Irish banking crisis, there was a clear link between bankers bonuses and risky practices. We are told that bonuses are back on the Irish bank table. Have we learned nothing?

BANSHEE'S LIVESTOCK ERROR COMES BACK TO BITE IT IN THE ASS

That's according to well-known veterinary surgeon, Maurice O'Scanaill who sent a humorous letter into the *Irish Examiner,* which pointed out why the Banshees of Inisherin did not win an Oscar. He cleverly noted that the continental breeds of cattle being driven along the boreen were not introduced to Ireland for many decades after the Civil War. However, he decided he could forgive the clanger, in light of the fact that the film also featured a carnivorous donkey!

Brendan Gleeson and Colin Farrell starring in the Banshees of Inisherin, with the cattle in question in the background. Photo by Jonathan Hession. Courtesy of Searchlight Pictures.



NO-GROW, SLOW-GROW FORESTRY

The spring 2023 optimum tree planting season is swiftly passing us by. The proverbial finger has still not been extracted and another critical timeline is passing us by. This reality means that one-tenth of the optimum planting period for the 2023-2027 Forestry Programme has been missed. The inordinate delays in securing State Aid approval from the EU for the new programme has meant that the planting rate to the end of March fell by 75 per cent on this time last year, with less than 100 hectares of new forests planted so far this year. Last year was itself a dismally disappointing year for tree planting because of planning, environmental and other bureaucratic delays. All of this is a far cry from the ambitious 8,000 hectare per annum target, which, of itself, is regarded as far less than the minimum required. Even if all the approval ducks are lined up in a row by the time the 2023 autumn planting season comes around, this will be another year of lost opportunity.

InTouch

LEARNING FROM THE PAST

CATHAL BOHANE,
INTOUCH NUTRITION

As the saying goes, 'April showers bring May flowers' – what we do in April will allow us to bloom in May. We are now between the breeding cycle, where we are wrapping up calving but at the same time preparing for the new one. It is an important time to take stock of what has gone before and what is ahead of us. Learning from our experiences can result in improvements moving forward. As everything happens in short blocks, preparation is key because there is no second chance.

A simple question to ask at this time of year is: how has our calving season gone? Rather than a straightforward answer of 'good' or 'bad', are there measurements we can use to back up our answer? What was the calf mortality percentage? What percentage died or were treated within the first day or the first month? What were the main causes of issues? In relation to the cow, what percentages of metabolic issues – including milk fever and retained cleanings - were seen? Are these acceptable levels?

Now we can definitively say if it was successful or not, and we can identify what did or didn't work and then aim for improvements next time. All these measurements will be forgotten somewhat by next December or January, hence the need to consider them now.

The next step is to prepare for the breeding season ahead, again remembering the current calving season and how breeding went last year. Success will ultimately come down to a compact calving season and having as many cows in calf as possible. While a six-week in-calf rate can be debatable depending on cow numbers, management, and the setup, our target is 90 per cent and ideally >90 per cent in calf rate. To put it simply, in-calf rate is conception rate multiplied by submission rate: we have to see them in heat, and they have to conceive. Achieving a 90 per cent submission rate and a first and second service conception of 65 per cent will get us on the road to achieving this target. Again, this is another block of six weeks where you don't get another chance. Not an easy task, and even a great conception rate can be undone with a low number in heat. Therefore, we need to start completing pre-breeding checks now using observation, tail paint, fertility aids, etc. This will give us a chance to intervene on any problem cows.

Just when we thought it was getting easy, we now have cows milking large volumes and we are trying to juggle grass, which can vary in dry matter by 30-40 per cent, per day. Stabilising this nutrition as much as possible is key. Measure grass intake, maximise grass intake (but only if it is available), allocate the required supplement, and don't be afraid to continue to use silage or forage supplement if they are short or the weather prevents intake. Cows are now coming back to more realistic milk solids levels, however, drops below your average should be prevented or addressed if they occur.

It is important to measure our past experiences and events in order to improve moving forward. While we work on percentages, simply getting one or two more cows to show heat or get in calf can determine success or failure in this cycle.

HAS TIMED AI A PLACE ON IRISH FARMS?

Focused reproductive management is a core building block of financial efficiency in dairy herds, especially at a time of rising input costs. According to Teagasc, the total cost of a first round missed heat and resulting slip in calving date for a 12-week breeding season is €150. The costs of sub-optimal herd fertility are manifested in reduced days in milk, poorer pasture utilisation, higher replacement rates, and increased feed and labour expenditures. The dramatic increases in fertiliser, feed, land and labour costs place further stress on farmers to maximise technical efficiencies in critical areas such as herd reproduction.

"Fixed timed artificial Insemination (TAI), when operated as part of a sound reproductive management programme is a valuable technology for addressing costly slippage problems," according to Donal Walsh, BAgrSc. MAgrSc..

"TAI allows dairy farmers to concentrate the timing of heat among a group of animals while reducing laboursome oestrus detection. This practice gives dairy farmers the opportunity to breed 100 per cent of their heifers on the day they are introduced to the breeding group, maximising their chances of longevity in the herd and increasing their lifetime productive performance.

"In addition to its use on replacement heifers, TAI can be beneficial for anoestrous cows in the milking herd, helping to consolidate breeding by bringing forward heats and getting animals cycling sooner. TAI ensures more animals are going in calf earlier in the breeding season, condensing the subsequent calving pattern earlier in the season and reducing the herd empty rate," he said. This has positive knock-on effects by reducing the herd's replacement requirements, and the associated costs.

Researchers in UCD investigated the potential profit from TAI use (Ovsynch+PRID protocol) in Irish pasture-based dairy herds. After the full costs of land, labour and capital were accounted for, our analysis found that TAI use (at a treatment cost of €41/head) in heifers only, could return a profit advantage of €16/heifer bred compared to standard oestrus detection and AI.

"The profit advantage increased to €34/cow when TAI was used on heifers and cows for first breeding only, equating to a profit increase of around €3,400 for a typical 100-cow herd. Interestingly, this analysis found that the genetic gain of the herd increased as more of the herd went in calf to high EBI dairy sires earlier in the breeding season.

"To conclude, TAI use will help get more animals bred more efficiently, reducing costly days open for the herd which has a beneficial effect on the bottom line."

Damien O'Reilly
EU Affairs and
Communications Manager, ICOS

LETTER FROM BRUSSELS

One thing you notice when chatting to counterparts from across Europe is the commonality of issues and problems. Whether its commodity prices, weather, succession or rural isolation, these are challenges that the farming community faces all across Europe. The European Council of Young Farmers, known as CEJA, is the European umbrella organisation for young farmers. Macra is affiliated to CEJA, which represents around two million young farmers across Europe.

In February, they published a policy paper titled *Access to Land - Are we losing the European plot?* The report cited the fact that access to land is the primary obstacle to generational renewal in European agriculture. There are approximately 157 million hectares of land used in the EU for agricultural production, which represents around 38 per cent of total EU land area. But land is scarce, and it is expensive. And that land area is dwindling every year for many reasons including from construction and urbanisation. For example, in relation to 'land take' which is where land is 'seized for construction and urban development', the CEJA report shows that from 2000 to 2018, a total of 1.4 million hectares of land was taken in the EU28. Land abandonment and high competition for land use between farmers and farm practices are serving as a huge challenges for young farmers. And of course, land is also under pressure from the impact of climate change on land quality and quantity and soil health.

The report also focuses on social issues around land use such as intergenerational tensions, land retention to secure payments and the reluctance of older farmers to encourage the younger generation to take over. Interestingly in their list of 13 recommendations, they suggest 'providing an intergenerational policy mix to facilitate land mobility and transfer', through existing Common Agricultural Policy (CAP) schemes and they cite Macra's Land Mobility Service as a good example of how this could work. Easier access to finance is also key as the report concludes that young farmers are two to three times more likely to have a loan application rejected than farmers 40 years ago.

In March 2017, the European Parliament officially declared: "If the agricultural sector is to have a future, it is particularly dependent on access to agricultural land for young people." Six years on and with a new parliament set to be elected in a little over 12 months, young farmers across Europe need to have their voice heard by prospective MEPs. With co-decision, the parliament has a much bigger say in shaping EU policy than it once had. And with climate central to much agricultural policy, the ones who will be charged with delivering on these agri-environmental targets need every support they can get and that begins with access to land.

icos
Irish Cooperative Organisation Society

FARMERS LARGELY FOLLOW PESTICIDE RULES, BUT PUT OWN HEALTH AT RISK

A study published by researchers from University College Dublin (UCD) has found that farmers largely follow rules about how to apply pesticides, but some are failing to protect their own health by not wearing personal protective equipment.

Research fellow Dr Ed Straw, alongside associate professors Edel Kelly and Dara Stanley, all from the School of Agricultura and Food Science at UCD, ran the anonymous online survey in 2022 and received 76 responses. Their results featured in a paper titled 'Self-reported assessment of compliance with pesticide rules' published in *Ecotoxicology and Environmental Safety*. They found that the average farmer scored 81 out of 100 for compliance with pesticide application rules, indicating that most farmers do follow the rules most of the time. They also found that farmers are very good at disposing of leftover pesticides and not overapplying pesticides, which is a key worry for environmentalists. And 96 per cent of respondents were good at applying pesticides at the right rate.

However, some questions revealed more troubling responses. One in six respondents who apply pesticides have not taken the legally mandated training course, meaning they lack the formal training in how to stay safe, use pesticides correctly, and protect the environment.

Just under half of respondents were bad at wearing protective equipment or breathing equipment while spraying, and one in four respondents 'rarely' or 'never' wear gloves while mixing and applying pesticides.

Further, while a small minority, some answers indicated a lack of understanding as to how pesticides can be hazardous. Some respondents reported emptying waste pesticide in manners which would contaminate waterways or buying banned substances.

Dr Straw said: "Our research also finds that most farmers are responsible and safe most of the time. In fact, compared internationally, Irish farmers are among the best in the world. The efforts so far have been very successful in creating a culture of safe working, there's just a little way left to go.

"Not following the rules around pesticide use such as wearing gloves or breathing equipment can be hugely damaging to farmers' health. While not following environmental rules can damage ecosystems and waterways.

"Farmers need to be better supported in their use of pesticides. More training, education and enforcement is needed to reduce the levels of non-compliance seen here."

Dr Straw said they hope that the the Department of Agriculture, Food and the Marine (DAFM) redoubles efforts to work with farmers around pesticide safety. "While Irish farmers are broadly doing a good job here, more can be done, particularly to encourage farmers to protect their own health."

This project has received funding as part of the PROTECTS project by the Irish Government's DAFM's Competitive Research Funding Programme.

The paper can be accessed for free at https://doi.org/10.1016/j.ecoenv.2023.114692

IFA TIMBER SURVEY SHOWS IMPROVED PRICES

The Irish Farmers Association's (IFA) timber-price survey from January to March 2023 shows a recovery in timber prices, with higher prices across product types since the end of last year. Commenting, the IFA's Farm Forestry Committee chair, Jason Fleming said: "Timber prices, which were in decline from July onwards last year, have started to show signs of improvement. The increase in prices reported this year reflects the increase in market demand," he said.

The roadside prices quoted for Sitka spruce timber were:

- Pulpwood prices ranged from €32-€40/t;
- Stakewood prices ranged from €38-€48/t;
- Palletwood prices ranged from €42-€74/t, depending on the length produced;
- Sawlog prices ranged from €85-€105/t.

The prices quoted in the IFA Farm Forestry Timber Market report were sourced from forest owners, forestry companies and sawmills. "The improvement in timber prices for 2023 will be welcomed by farmers with forestry after the uncertainty of market conditions last year," Jason said.

GROWING 50% MORE GRASS THAN THE NATIONAL AVERAGE – HOW?

Findings from Teagasc's National Farm Survey show the average dairy farm is growing and utilising 7.5 tonnes of dry matter per hectare per year (t/DM/ha/year). On the surface, this doesn't sound too bad. But when you take a step back and compare this to the average grass production for farmers using Pasture Base Ireland, which is, on average, of 14.5t/ha/year, this equates to almost 50 per cent more grass available on these farms.

So how can farms that are only separated by a ditch have such drastically different grass production?

"In one word, management," says operations director True North Technologies, Dr Diarmuid McSweeney. "Management includes getting cows out as early as possible in the spring, putting cows into the right type grass covers with the correct allocation. This will all speed up regrowth. This extends further to identifying and addressing underperforming paddocks on the farm, targeted fertiliser applications and removing paddocks for silage at the optimum time," he says.

"As the saying goes, you can't manage what you don't measure. So effectively, the first step to increase the grass produced on the farm is to measure your grass. Luckily, there are many easy to use and cost-effective methods."

RESEARCH WILL HELP MONITOR AND MANAGE CONCERNING INVASIVE STINK BUG

A colloborative European research project is underway at Tyndall National Institute, in partnership with Teagasc, which aims to monitor and sustainably manage *Halyomorpha halys*, the brown marmorated stink bug, which is a highly invasive insect species. The project is using drone technology and artificial intelligence to automate the monitoring process, which was traditionally managed manually.

This invasive shield bug native to East Asia has been detected in Europe with sporadic and transient identifications in the UK since 2018. This is a worrying development as the insect can cause malformed fruit when feeding, and potentially damage significant amounts of tree fruit crops, as well as some vegetable and arable crops. Brown marmorated stink bugs can also be an annoyance when they migrate into dwellings to hibernate, where they emit a foul odour.

The bug was first seen in Italy in 2012, resulting in significant economic losses for fruit and vegetable within just two years. The invasive species has continued to spread northwards, with sightings of two adult male *Halyomorpha halys* in the UK in 2020.

Insect monitoring plays a crucial role in the mitigation of crop damage. Traditionally, farmers use pheromone-loaded sticky traps to monitor insect pest species, with these traps manually checked periodically, to estimate the type and quantity of the insect. This is a time-consuming and labour-intensive task, which often requires a high level of entomological expertise. To combat this challenge, this research project is automating the insect-monitoring process. The automated method involves the use of drone technology, image analysis, and a low-cost and low-power microcontroller unit (MCU) device that performs all data processing using artificial intelligence. Head of group, Tyndall, Brendan O'Flynn said: "As the world's population grows, food security is becoming increasingly important. We are proud to collaborate with international partners to develop a smart sensing system, ensuring our European orchards continue to provide high-quality food produce. We are working alongside international experts in agriculture; Teagasc in Ireland, as well as European partners Imec, the Italian Universities in Perugia and Modena and the Technical University of Braunschweig in Germany, to develop impactful technologies."

Entomologist and senior research officer, Teagasc, Michael Gaffney, said: "Monitoring for pest and diseases is a fundamental first step in the successful implementation of integrated pest management strategies in commercial horticultural production. Developing technologies that automate the detection of harmful pests, reducing the time and labour input required, while also reducing the gap between monitoring events to a single day, will hopefully assist growers in detecting the pest early in the Spring when the pest numbers are low, where crop protection interventions are most effective." This newly developed automated insect monitoring tool was deployed in an Italian Orchard in February 2023.

The invasive insect species, *Halyomorpha halys*, also known as brown marmorated stink bug.

GENETICS AND GRASS DRIVING SUPERB WEIGHT GAIN ON WESTMEATH FARM

***IRISH FARMERS MONTHLY* TRAVELLED TO THE FARM OF CHRIS McCARTHY IN CO. WESTMEATH, HOME TO A SPRING-CALVING LIMOUSIN HERD, AND THE LOCATION FOR THE 2023 IRISH GRASSLAND ASSOCIATION BEEF EVENT, WHICH TAKES PLACE THIS JUNE**

The McCarthy farm is made up of 28ha of relatively free-draining soil and has the added advantage of being on one block. The farm is home to a spring-calving herd comprised of 46 Limousin cows mated primarily to terminal Charolais stock bulls.

Alongside the commercial herd, Chris runs a small number of pedigree Charolais cows, which provides stock bulls for his own use as well as selling a number of breeding stock each year. The current stock bull is a Doonally New (CF52) bred bull with Chris having a fondness for other Charolais stalwarts such as Pirate (PTE).

When he combines these terminal genetics with his three-quarter bred, red Limousin cow, the results speak for themselves with outstanding quality suckler stock being bred on the farm, consistently over the past number of years.

Commenting on his cow type, Chris said: "It has to be a red Limousin; I used to operate with the odd black Limousin cow, but in terms of delivering what we want here, I have moved solely to red cows over the past few years."

Historically, replacements were purchased as in-calf heifers from one or two sources but Chris found that these were getting more and more expensive, so he has since moved to bringing in maiden heifers over the past two years. "I was sourcing them from the same farm every year for a number of years, but I have had to move around in order to get the type of stock I want. It is something that is getting harder and harder to find all the time," he explains.

The farm is quite heavily stocked and, in the past, Chris has been in derogation, but now operates just below 170kgN/ha each year. This high stocking rate helps to drive the output per hectare, ultimately driving the profitability of the farm.

Calving starts in the first week of February and is, typically, finished by St Patrick's Day. In 2021, there was an issue with a sub-fertile bull, which has resulted in the calving spread increasing slightly over the past two years. This is something that Chris is working on pulling back quite quickly.

"There was a big turnover of cows that year, we increased the length of the breeding season slightly, but still there were 18 cows not in calf and they were all culled. I am working off farm full-time so I need calving to be compact and have it over with. We have made big progress last year and I would hope to do the same again this breeding season and be back to a six or seven-week calving season in the next couple of years."

GRAZING SEASON

Cows and calves start to be turned out to grass in small numbers as soon as the weather conditions allow, which is typically around February 15-20, with around March 10 being the mean date for turnout. The grazing infrastructure on the farm is simple, but effective. Chris can move a batch of stock singlehandedly anywhere on the farm. He says that stock are used to getting a move to fresh grass.

"I have a number of farm tracks and I must have 10 or 12 temporary fence reels that I use to make passages through paddocks, if needed. Everything needs to be able to be done by one person," he says.

Good genetics combined with excellent grassland management are key to high growth rates in calves over the first season at grass. Chris was measuring grass in the past, but has moved away from it in recent years.

"I enjoyed measuring grass, it really did give you confidence that you were ok to take out a paddock or show you where there was a deficit coming in a couple of weeks' time. I have a bit more time now so I would like to go back to it again."

Being busy off farm means that every hour on the farm needs to be productive. Chris estimates he spends around 15 hours per week on the farm across the entire year. The biggest workload is obviously in winter, and during the calving season, but Chris is slow to handle cows at calving if they don't need it.

"I have cameras on the phone that I can watch the cows on. I like to leave them alone as much as possible. Only when there is no progress being made will I handle a cow. This year, I have assisted three calvings and one of those was in the middle of the night."

BULL-BEEF SYSTEM

One change implemented is the move from a weanling trading system to an under-16-month, bull-beef operation. At weaning, which takes place in late September, bull calves are typically 350kg to 360kg. They are fed meal two weeks pre- and for four weeks post-weaning and, once housed in November, they start on 2kg of ration, which increases to 4kg by the new year. This moves to 6kg by February 1 and ad lib by March 1.

There has been an increased focus on silage quality on the farm over the last number of years also, with Chris seeing it as a key way to reduce the total amount of meal fed to bulls. Currently, they are consuming around 1.8t/head lifetime of concentrate. These bulls are achieving big weights at under 16 months, with average carcase weights around 460kg. These animals are going on the grid and are typically grading U+ for conformation and 2+ on average for carcase fat score. Chris is working closely with his processor to ensure the market is there for this type of stock each year.

IRISH GRASSLAND ASSOCIATION EVENT

All roads lead to the McCarthy farm this June for the 2023 Irish Grassland Association (IGA) Beef Event. The farm walk will highlight the key components of the system around soil fertility and grassland management, animal health, labour requirements, and financial performance. IGA Beef Committee chair, Niall Claffey, said: "This farm is a super operation run to a high level of technical efficiency. This, coupled with the right genetics and production system, results in both a profitable and sustainable enterprise for the McCarthy farm. We encourage all beef farmers to attend on the evening. With a line-up of excellent speakers, on a super farm, it is an event not to be missed."

Chris's farm is located in Crookedwood just north of Mullingar and the farm walk takes place on Tuesday, June 13 at 6.30pm.

A NEW CHARGE

JIM O'TOOLE TOOK OVER THE POSITION OF CEO AT BORD BIA IN NOVEMBER 2022. HERE, HE OUTLINES HIS KEY PRIORITIES FOR HIS FIRST FULL YEAR

Having taken over the role of CEO of Bord Bia in November of 2022, Jim O'Toole has followed a very similar path to his predecessor, Tara McCarthy: both spent much of their careers at the Irish Food Board before leaving to take over the position of CEO at Bord Iascaigh Mhara (BIM) – Jim replaced Tara as CEO of BIM in 2017 and, once again, followed in her footsteps at the end of last year when he took over the role of CEO at Bord Bia. But it is a rapidly changing environment that he has returned to, and that the Irish food industry finds itself in today: with global food security front and centre, a new CAP on the horizon, and the aftermath of Brexit still shifting the goalposts in the marketplace. So where do his priorities lie? "The priorities are laid out in the strategy that we launched last year; but the climate action agenda is where Bord Bia has a really important role to play in terms of building Ireland's food brand and how we communicate this to customers around the world, and right through to farm level. We need to also help build better relationships between our clients and customers and to offer insight into the innovation evident in the sector. We are in such a volatile period: these forces [Brexit, Covid, the war in Ukraine] are coming one after the other. Sometimes people might think that innovation diminishes in difficult market conditions but, in fact, it increases."

THE FARMER'S ROLE

Prioritising farmers and connecting with the farming community is also an important focus for Jim: "Farmers are fundamental to what we do. We have a very close relationship with the farming community through the various different forums

we engage with and the representative organisations. When we are telling the story about why Irish food is different, is unique, the farmer is at the heart of this. We have always understood that." says Jim.

"The Origin Green initiative – and now the sustainable assurance schemes – is a key selling point; it is very distinct from other countries, and it has a real impact on customers. We are appreciative of the fact that this all hinges on the work going on in thousands of farms every day. At farm level, we have over 55,000 members of Bord Bia's Sustainable Assurance Schemes and that is testament to the engagement that farmers have in this whole area."

And Jim is keen to point out the inherent care that farmers have for the land they work and the recognition this deserves: "Farming is all about caring for the land, passing it on from generation to generation. Farmers understand this better than anyone and they work very hard to achieve progress when it comes to sustainability. With Origin Green we have brought measurement to this. And we are collaborating with Teagasc and ICBF in terms of creating action plans and tools to help improve and deliver support services here to assist that work."

Jim adds that the work being done in Ireland is very progressive. "We have stringent targets to achieve and this is going to mean farm practices will change – but there is a pride and quality of product that we can bring to consumers around the world and we have strong evidence that there is a demand for that."

CONTINUOUS PROGRESS

In order to meet all of the challenges facing us, Jim recognises that there are complex issues to be addressed, but he is confident of our ability to do so: "Irish farmers have never failed to respond to a challenge, and they are challenged frequently. Farmers are looking for clear messaging and clear direction.

We celebrated 10 years of Origin Green last year – it has always been about a journey and it has always been about progress; but we were right to start on that journey as long ago as we did. Our farmer members represent 90 per cent of what we export and there are schemes coming on all of the time so that reach will grow. Origin Green is voluntary and always will be – it would be inappropriate to think otherwise. However, demand from consumers is only going in one direction, as is policy, so we see Origin Green as an enabler to achieving these goals."

> **IRISH FARMERS HAVE NEVER FAILED TO RESPOND TO A CHALLENGE, AND THEY ARE CHALLENGED FREQUENTLY**

He notes that these suite of assurance schemes are constantly reviewed: "We are always trying to structure them a little bit better. The need for review is because of legislative changes, market requirement changes, etc; and these schemes give us the credibility and evidence to go to customers around the work and show them that what is happening [in Ireland] is as good, if not better, than elsewhere. This updating is done in consultation with everybody."

"We are open to criticism and, if we are challenged by it, we take it on board. But we know from experience that we are dealing with sophisticated customers all around the world and they won't just take our word for it. Everything we do always has to be underpinned with evidence. We collect this evidence and everything is done against independent standards. We publish the evidence – we don't try to say it is better than it is: we simply we tell it as it is, and we are happy to stand over the detail."

Commenting on the possible demand for carbon labelling on food products across the EU, Jim explains: "Bord Bia has just completed a study on carbon and the consumer and it is very interesting. There is a plethora of claims being made and consumers are finding it difficult to navigate this. It is complex. Consumers want to do the right thing. There is some work to do but we are going in that direction, with regard to harmonisation in EU policy and looking at how to try to help people navigate that."

PRODUCTION

Does Jim see our production models changing? "The whole thrust of Climate Action Plan is around options for diversification and that will be a feature as people look at different options. A growing sector, for example, is organics. We were exhibiting at Biofach recently and, while the economics are challenging for all sectors, we see that there will be a growing demand for organics, particularly in continental Europe.

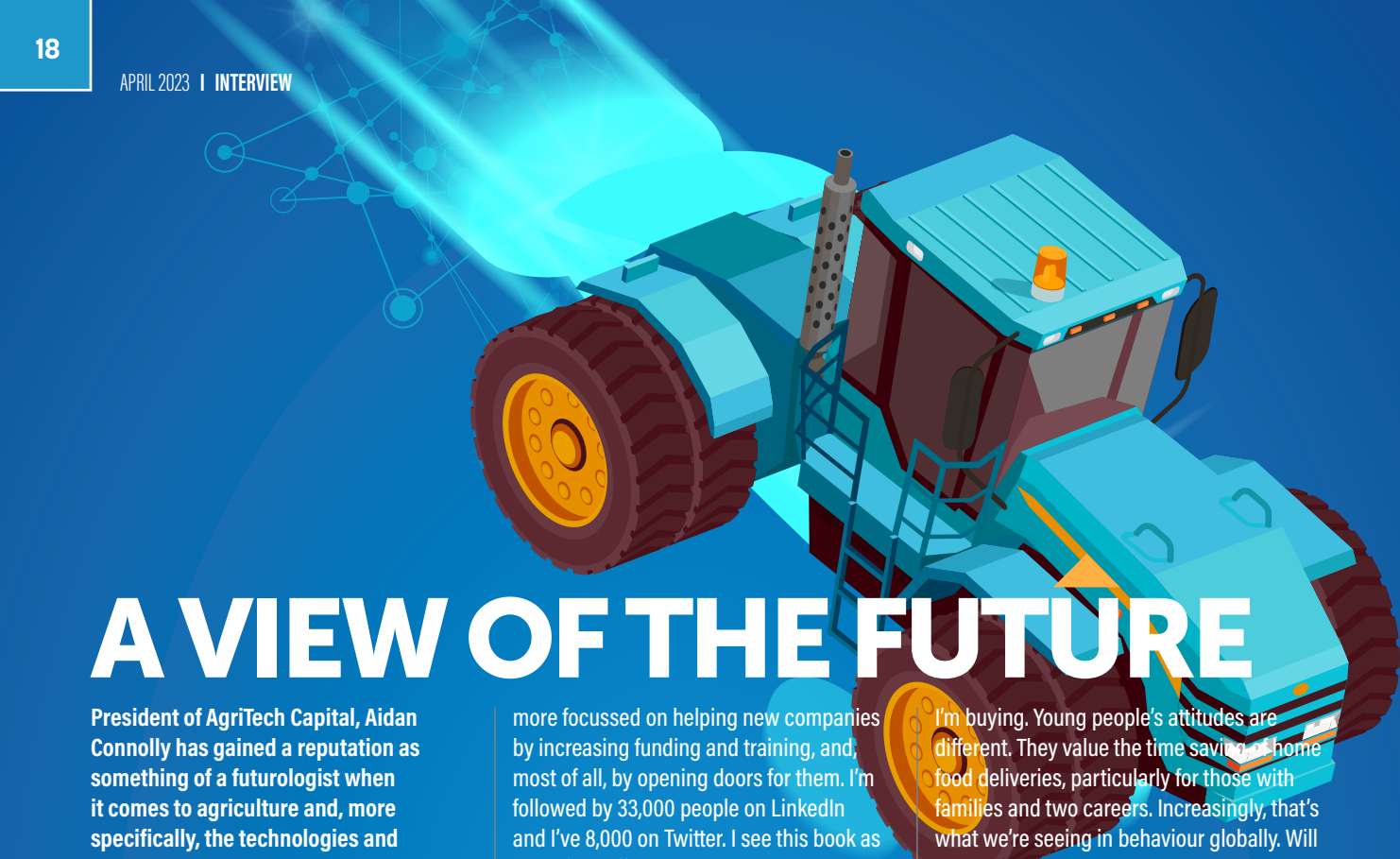
"For the dairy sector, we have seen rapid expansion in terms of output; the focus for the future will be in terms of increasing value from dairy. The production output will stabilise."

In relation to beef, he highlights that the amended application for an all-Ireland PGI has been submitted to the European Commission and they are awaiting a response. "There are opportunities if we get PGI, particularly in continental Europe where they are familiar with it, and we can reinforce our provenance and look to identify Irish beef and our USP.

"In relation to market access for beef industry, it was fantastic to regain access to China in January and that is something that the Department put a lot of work into, both from a health point of view and diplomatically. And my colleagues in Shanghai worked hard to keep those contacts alive. We have a trade mission in May and we are looking forward to meeting customers face-to-face. There is work ongoing for some time relation to market access for Korea and that is at an advanced stage; it is going through their own Parliamentary process.

"You have to think about the best market for the best cut at the best time; it's about having a range of possibilities and being able to identify which will return the most for the producer."

Concluding, Jim refers to his calendar for the year: "Every day is an important day in the Bord Bia calendar. We have over 30 trade shows this year. These include Biofach, Gulfood, Tuttofood, SIAL China, specialist shows in the US and a trade mission to South East Asia in November; as well as buyer visits over the summer and Bloom, of course, in June. It will be a busy year."



A VIEW OF THE FUTURE

President of AgriTech Capital, Aidan Connolly has gained a reputation as something of a futurologist when it comes to agriculture and, more specifically, the technologies and practices that will impact most strongly on the world of agriculture in the coming years. Aidan, who first cut his business teeth in Alltech, recently answered a series of questions put to him by *Irish Farmers Monthly* editor, Matt O'Keeffe, in relation to his recently published book, The Future of Agriculture

HOW IS IRISH AGRICULTURE PLACED TO BENEFIT FROM THESE TECHNOLOGIES?

"Ireland has some advantages and disadvantages. Our system is grass-based and that is not usual in the world. Increasingly, cows are being kept indoors. Aside from New Zealand and a few other regions, to a large degree technologies developed for pasture-based systems don't have applications in other parts of the world, and that's a pity. But, conversely, Ireland has Google, Intel, Microsoft. It's got Twitter and Meta; it's got all of these very high-tech companies. Add in the fact that most of us are one generation from the land and the potential is higher for finding entrepreneurs; people engaged in start-ups who understand what farming requires and also have the technical skills to build a company. Ireland is ideally placed to foster and adapt a lot of these new ideas. I'm Irish, but I live in America. I have a foot in each camp. I have the sense that Ireland is fantastic at creating new start-ups. I don't think enough of them have become successful and we must be more focussed on helping new companies by increasing funding and training, and, most of all, by opening doors for them. I'm followed by 33,000 people on LinkedIn and I've 8,000 on Twitter. I see this book as part of my efforts to try to help people with great ideas to get out there, create their businesses and hopefully transform the way we produce food."

WHAT IS A PROSUMER?

"Prosumer is a word that was originally invented for people who proactively help tech companies create technology. Then, a French marketing group started using it for food consumers. As consumers going to the supermarket, we often bring our ethics and morals and our expectations with us, and we bring our views of how food should be produced. In a strange way, we don't do it all the time. A person shopping in Aldi or Lidl picks up something as cheaply as possible but could go to the restaurant later and ask lots of questions about whether the chicken is from Ireland and where the potatoes were grown. We're not always consistent. This study of prosumers shows that 30 per cent of consumers, globally, are using proactive consumer behaviour. Those proactive behaviours are even seen in countries like China and Brazil, and not just in Europe or the United States (US). Neither is the behaviour confined only to people with higher incomes."

ARE WE SEEING THE DEMISE OF SUPERMARKETS?

"Absolutely. I like picking up food, looking at it and even smelling it. I like seeing what I'm buying. Young people's attitudes are different. They value the time saving of home food deliveries, particularly for those with families and two careers. Increasingly, that's what we're seeing in behaviour globally. Will we get our food delivered by drones and robots? That's already happening on top of the more familiar delivery vans. Increasingly, food is being picked for us and delivered to us, with some exceptions such as boutique grocery stores. The goal very much seems to be to make it as cheap and as easy to deliver as possible."

WHAT DOES THE FUTURE HOLD?

"Donald Rumsfeld spoke about the known knowns, the known unknowns, and the unknown unknowns. And the more information we have in farming, the more I feel as though we're dealing with unknown unknowns. We're learning about the genomics of animals, and how the genome works. We're learning about nutrigenomics, how nutrition impacts on genetics and genomics.

That is is where Alltech and other companies are investing. We've learned a lot about the influence of the microflora, not just inside the animal, but also in our soils. You hear a lot of discussion about that in terms of carbon capture, biodiversity and so on. Now, we're learning a lot about how nutrition works, as in the fact that we evaluate silage or some other feeds separately when we should evaluate their combined nutrition. It makes perfect sense. But quite often we don't do it. These unknown unknowns are increasingly known using sensors, data and other analytical

technologies. It's going to make us more precise in our agriculture. I hope it makes the food more affordable and safer. It also allows us to address many of the questions about sustainability."

OUR EMISSIONS ACHIEVEMENTS

"We're looking to reduce emissions by 30 per cent. Look at the compounded improvements in milk production, with higher-producing cows reducing the amount of carbon per kilogramme or per litre of milk produced. Genetic improvements alone are going to take us to almost 30 per cent in the next eight or nine years, if you compound out that 2.5 per cent improvement in productivity, and we can do more. You see what's being done with the feed ingredient that DSM is promoting. We're going to see more of these additives being fed to knock down the levels of methane. Everything we do to increase productivity and to make nutrition more precise, will be part of reducing our carbon footprint. I'm very optimistic about Ireland and its carbon footprint from a farming perspective. I think we need to make a better case for the fact that the problems of methane in cows, typically, come from cows in India, or Brazil, or some of the lower-producing cows in China. Maybe we should be producing milk or meat in Ireland and exporting to those countries, so long as they also are willing to take responsibility for the carbon credits that we assume when we produce their food for them."

WHERE TO NOW FOR AGRI-TECHNOLOGIES?

"I don't think we fully appreciate the scale of the changes that are coming.
My iPhone has more computing power than took men to the moon. Let's look 10 years out: 3D printers will allow spare parts to be constructed locally; sensors and robotics are already being widely adopted; artificial intelligence is the glue that binds it all together and must be a big part of all these technologies.
We need more food from fewer resources. There is no way to imagine producing food sustainably without embracing digital technologies. My book lays out some roadmaps of what we can do to achieve this."

The Future of Agriculture **can be purchased from** ***Irish Farmers Monthly*** **website: www.irishfarmersmonthly.com**

GLOBAL AMBITION, LOCAL FOCUS

DR MARK LYONS, PRESIDENT AND CEO OF ANIMAL NUTRITION AND HEALTH COMPANY ALLTECH, VIEWS IRELAND AS A CRUCIAL MARKET IN THE DRIVE TO CREATE A MORE SUSTAINABLE GLOBAL AGRI-FOOD INDUSTRY. HERE, HE DISCUSSES THE UNIQUE ADVANTAGES OUR FARMERS HAVE WHEN IT COMES TO BUILDING THE FARM OF THE FUTURE

While Irish dairy farmers battle to face rising costs and sustainability pressures, the narrative in mainstream media around curtailing production continues. CEO of Alltech, Mark Lyons, is clear in his message here: "It is so important that we continue to produce dairy in Ireland, in a place where we are very efficient producers. If we don't produce dairy – or beef – here, we are going to be doing it in places that are not nearly as efficient. Irish products are high quality, we have the traceability, and I would say we have a good track record of being able to adopt new technologies."

Not only does Mark believe Ireland is the ideal location to produce dairy, but he also believes we are well positioned to showcase best practice and innovation to a global audience: "There is an opportunity for us to create examples here that can be utilised elsewhere – the numbers are smaller in Ireland (compared to other countries) – the scale is smaller – so, it can be much easier to manage research here and it can have an outsized impact globally.

"We view Ireland as a really powerful place for us to continue our research – we can use Ireland as an example for other places, to see it as best practice, to create new business models. We see our role as advocating for the industry to consumer and to government; but also urging the industry forward, to say that we can do things in a more efficient way and there is a huge amount of innovation here. If you look around the globe, it is clear – if we don't produce food here, I'm not sure where we should be producing food."

PLANET OF PLENTY

Alltech's 'Planet of Plenty' is more than just a mission statement – it is an initiative that puts science, collaboration and innovation to the fore of Alltech's work: "The Planet of Plenty is a really good umbrella to bring together all of what we do. Our industry is one of two industries that can actually capture carbon as part of our primary function and what's been really exciting is to see some of those practical examples of this in action. We presented some of these examples at the ONE Conference last year – such as a beef operation that's capturing 50 per cent more carbon than it's emitting, where we're actually capturing more carbon with animals on the land. This [work] is starting to create bit more of an image of the future of agriculture. We need to be thinking about the whole ecosystem, so that's been really exciting and with Tara McCarthy (former CEO at Bord Bia) joining us, we can see how we can showcase Ireland within the Planet of Plenty story."

Mark stresses that collaboration is key: "We have to be thinking as one industry and thinking about the whole system. In Ireland, there is a lot of collaboration already and I think the challenges in front of us are a galvanizing force."

Focusing on sustainable goals for the industry, he adds, however, must make sense from an economic point of view for the farmers. "This needs to go hand-in-hand with improved economics for farmers – if we don't deliver on that it won't be sustainable."

ALLTECH'S WORK

Discussing the work underway at Alltech, Mark explains: "It is really varied. In certain cases we are creating projects with research

institutions; in other cases we're working directly with the farmer; and in other cases we're working with processors. There is no 'one size fits all'. For example, we have found some leading dairy processors who want to really work with their producer base and we might have a technology today that we can implement, or we might think about what do we need to develop. The science underpins everything, then that builds out the sustainability, and then we roll it right out to the storytelling, because if we don't tell the story properly – and we don't have the marketing and the communications – it's all for nothing.
"The ideal thing is that we create efficiencies at farm level, which produce higher profits and create something that is tangible [for the customer] – maybe this is a beneficial nutritional component or maybe it is an environmental credential that could be told as part of their story."

TECHNOLOGICAL AND SCIENTIFIC ADVANCES

Commenting on the technological and scientific innovations shaping the future of our agricultural industry, Mark notes: "Traditionally, when we bring out new technologies, Irish farmers tend to be much more open to them than other markets; so, once again, I think the Irish market is crucial for creating these examples that that could be rolled out and used elsewhere."
He says that one of the most exciting things Alltech has done this year is acquire a business called Ideagro in Spain. The company has a team of over 20 scientists spearheading agri-food research and development in the industry. "Essentially, what they do is they identify microorganisms [in soil] that may have interesting properties, such as microorganisms that might be able to provide us with better nitrogen uptake in soils, for example," he says.
Antimicrobial resistance is another area of importance, says Mark. "The team has done tremendous work on this. What we're finding is that removing antibiotics doesn't actually reduce the resistance level; our programme, which we've been able to put out on farms, is creating a competitive landscape that the actual resistance in these bacterial populations shifts; any gene like this takes a little bit of energy to be passed on to the next generation – we're creating a competitive scenario where we're actually selecting for that resistance and they're the ones that are surviving and passing on their genes."

> **"WE VIEW IRELAND AS A REALLY POWERFUL PLACE FOR US TO CONTINUE OUR RESEARCH – WE CAN USE IRELAND AS AN EXAMPLE FOR OTHER PLACES, TO SEE IT AS BEST PRACTICE**

ONE – ON THE ROAD

Alltech's ONE event is usually held in Kentucky each year, however this year it will be broken up into a range of smaller events around the world: "We thought that this year we could take that the ONE message out on the road and do something different and a bit more local. I think it will allow us to delve a little deeper, to dig down into the different challenges and opportunities in each country." The event will move around locations throughout the year such as Budapest, Minneapolis and Dubai and the Irish event will take place on June 19 and 20 in Croke Park. Over 500 invitees from across the globe are expected to attend the Irish event – expect sustainability, fuel, and economic and political uncertainties to be among the key topics.

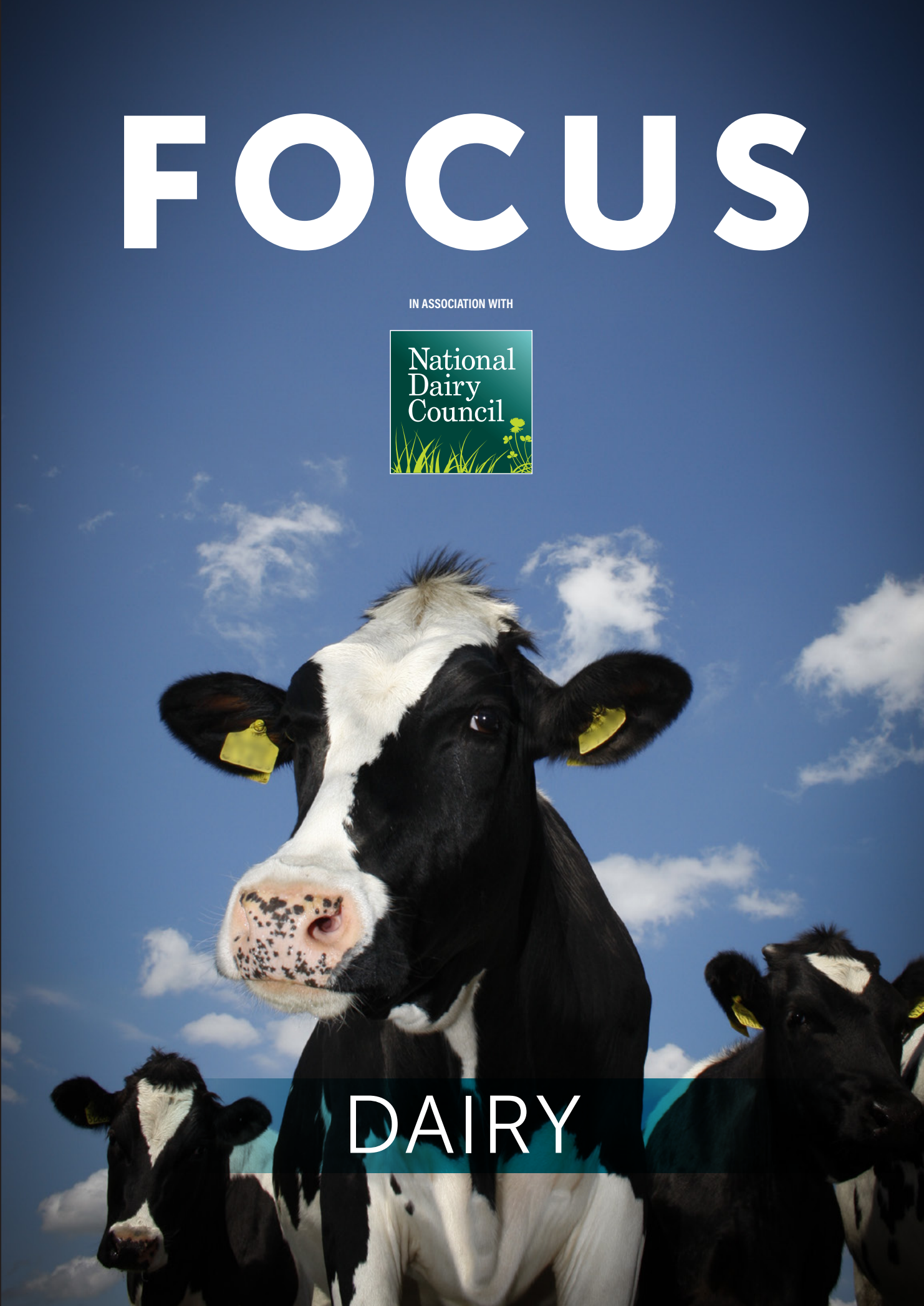
JOB CUTS AT KEENAN

The announcement by Alltech of up to 50 redundancies at Carlow-based agri-machinery manufacturer, Keenan, hit the headlines recently but Mark stresses that his aspiration for Keenan remains the same as it was when Alltech first bought up the company:
"It is focused on innovation. But because the culture of Alltech and Keenan were quite similar, I think we probably didn't go in and make as many of the changes as we should have done early on. We had a tremendous year as a global company in 2021 – and it was obviously because we're all geniuses! And, in 2022 it was much more difficult – and that was obviously because of the invasion in Ukraine and all this other stuff that wasn't our fault. But that is nonsense, right? You really have to isolate the business and see how it is performing. I would say we've seen other businesses where we immediately jumped in and started to change the structure and change the way that the business went to market.
"With Keenan, I don't think we made those changes. It's been a business we have supported – we have brought Keenan all around the world – and there is a lot of innovation with InTouch, which is really the backbone of what we do at Alltech. But now it's about getting to the place we should have got to sooner; getting our hands around it. There is still ambition there, but it's about getting more involved and making those structural changes that were maybe required a few years ago."

FOCUS

IN ASSOCIATION WITH

National Dairy Council



DAIRY

PRODUCTIVE YEAR IN NEW ZEALAND

> WE EVEN WITNESSED COWS SWIMMING TO REACH HIGHER GROUND

THE CYCLONE THAT NEW ZEALAND EXPERIENCED IN FEBRUARY CAUSED WIDESPREAD DAMAGE AS WELL AS LOSS OF LIFE. MONAGHAN NATIVE, OLIN GREENAN, IS A MILK PRODUCER BASED IN THE WAIKATO REGION ON NEW ZEALAND'S NORTH ISLAND. IN THE AFTERMATH OF THE FREAK WEATHER EVENT, MATT O'KEEFFE SPOKE TO OLIN ABOUT THE IMPACT OF THE CYCLONE ON FARMERS THERE

"We were very lucky in that we missed the main impact of the cyclone. At moments like this, it's a time to reflect on our good fortune," says Olin. "Unlike many others, we were able to function normally but along the east coast and north of Auckland, there were gruesome scenes and, as a farmer, I fully appreciate that it must have been a nightmare for farmers in those areas.

"There were widespread power outages and entire farms under water. The hilly terrain added to the impact of the heavy rain, because the water ran off the hills and swept all before it. Livestock losses were high including flocks of sheep. We even witnessed cows swimming to reach higher ground. "People showed their generosity and there has been fundraising and other help including manpower to get the people most affected through this. Still, it is going to take a long time for them to recover and rebuild their livelihoods. Most of all, we are thinking of the families and friends of those who lost their lives. February was also the twelfth anniversary of the earthquake that knocked much of Christchurch."

GOOD GRASS SEASON

While the localised impact of the cyclone has been serious, it will have marginal effect on milk production, as Olin explains: "From a grass-growth perspective, it has been the best production season so far in more than five years. Initially, we had a tough spring, running up to six per cent behind in expected production and that meant buying in a lot of buffer feed early in the season. With good subsequent grass growth, we turned that deficit around and produced a lot of extra milk completely off grass. Normally, there would have been concentrates fed but that hasn't been necessary for much of the season. The reason the cyclone hasn't hit overall milk production is because the main areas most badly hit are not the major milk producing regions.

The weather has been a change from previous seasons. Normally, we would be hit with a drought in February-March with grass burnt off and loads of supplementary feed needed to keep cows milking. We would be milking once a day (OAD), whereas this year we only moved to OAD in early March and were feeding two kilos of a maize silage buffer. The cows are doing 40 per cent more production than the average for this time of year. It has been a great summer on our farm and the only downside has been the huge increases in production costs."

ANOTHER SHARE-MILKING MOVE

The Greenans are share-milking in the Waikato and that can bring uncertainty: "The two farms we are operating on have been put up for sale, so we had to secure a new contract. Luckily, we have a deal done on a larger unit here in the Waikato. There is capacity for 800 cows and that will allow us to further grow the business. It's a case of never wasting a crisis. The initial upheaval has worked out well for us. As well as enlarging the herd we can consolidate by milking the herd through one rotary parlour. "On our current farm we were milking two herds in two parlours. That should deliver some efficiencies in labour and other production costs. The move will happen at the end of the season, on what is known in New Zealand as 'Gypsy Day,' when share-milkers move to new farms."

BUILDING EQUITY

That traditional means of building up equity by share farming to eventually own a farm is coming under increasing pressure in New Zealand, as Olin confirms: "Historically, if it was 30 years ago, Anna and myself would have secured our own farm by now. We are long enough share-milking to have built up enough capital to buy a farm. What has happened is that there has been year-on-year capital gain on land and the gap between the value of a cow and a hectare of land has widened. "Another dimension is that with high land prices and the cost of compliance, the return on capital from buying a farm is marginal. If looked at in cold business terms, why would you choose to do that over the share-milker model? However, as I've learnt in the last eight months, you pay a price for the relative insecurity of the share-milking model. It is high risk, high return. We were left, potentially, in limbo as to where we were going to live, but it has worked out well and, from a business viewpoint, we are satisfied to be increasing our wealth and that will give us options when we reach the next decision-making phase of our careers."

GLOBAL OUTLOOK

The Greenans were home in Monaghan for Christmas and that allowed Olin to keep abreast of Irish dairy developments: "Our New Zealand prices were mid-eight New Zealand dollars for the current season. Irish prices have moved back, and prices may fall further. The biggest influence on New Zealand prices for the next period may be the return of China to the market. Part of me thinks that with inflationary cost increases, there must be some element of inflation built into the milk price as well or the economics don't add up. There is increased global milk production, so the environmental restrictions don't seem to be impacting on the ability for milk production to grow across the world."

EVERYONE TOGETHER

There has been an effort to build a consensual approach to emissions reductions in New Zealand farming. Termed 'Everyone together' the strategy has hit a few challenges: "There was widespread consultation but there has been disagreement from some parties involved in the sector and we are seeing division in how to move forward. The mechanics of the strategy are a bit confusing and that doesn't help. Accusations that representative groups have sold out to the government have left people wary. My view is that we got the best option out of several unpalatable options, with some control over how the emissions pricing is set and how there would be funding coming back to the sector to support the necessary changes on farms. I'm not sure where we will end up now."

POSITIVE THINKING

Olin takes a positive outlook on developments: "The top-10 per cent of milk producers will always outperform their peers. That puts them in a relatively positive position whatever happens.
Average is a dangerous word and if everyone is piled in together, the financial figures will not look positive. I think there will be opportunities if you run an efficient milk production system. Through all the years of challenges, farmers have found solutions to problems through the application of science and technology. I have no doubt the same will happen in the future."

Flogas delivers instant hot water on demand to Ballina farm

Switching to the Flogas instant hot-water system has transformed day-to-day operations for the O'Donnell's Black River dairy farm in Ballina, Co. Mayo. They now have on-demand hot water from 37°C-85°C, thereby increasing milk quality, and reducing total bacterial counts (TBC) and thermodurics.

Switching has meant no more hot-water storage costs, a reduced carbon footprint, full control over the amount used, and an increased supply of instant hot water for use with chlorine-free detergents.

Now in its fifth generation of family ownership, the farm is run by Sean O'Donnell, his wife, and four sons. Before they switched to Flogas LPG, milking their 200 cows daily was putting a huge strain on their electricity-storage system in terms of its ability to produce enough hot water to the right temperatures, on demand, day or night.

Chlorine-free detergents had increased the need for more hot water and as they feed a lot of calves on milk powder, they required a flexible solution with temperature controls. Sean heard about the Flogas system through another farmer and put a call into Flogas. Local area representative, Roy Masterson paid a visit and took Sean through the solution and how it would work for his farm.

Sean liked what he saw and, once all was agreed, a local fitter did a site walk and the seamless changeover took place.

A Flogas bulk LPG tank was delivered and then connected to a wall-mounted heater. A telemetry system atop the tank sends daily readings to Flogas with automatic scheduling of deliveries, ensuring the farm is always topped up.

Sean said: "Flogas has met our flexible hot-water requirement. From washing milking lines to mixing calf feed, we now have a complete hot-water solution."

The Flogas LPG-fuelled hot-water system is very efficient and cost effective compared to electricity. There are no hot-water storage costs, but there is a reduced carbon footprint, and full control over the amount used.

If you want to arrange a free farm visit from your local Flogas representative, and find out more, go to www.flogas.ie/dairy or call 041 214 9600.

'THE FUTURE OF AGRICULTURE CAN BE BRIGHT EVEN IN A 'VUCA' WORLD'

Bank of Ireland's head of agriculture, Eoin Lowry.

WHEN IT COMES TO DEALING WITH UNCERTAINTY, FARMERS ARE SOME OF THE MOST EXPERIENCED AND ADEPT, WRITES HEAD OF AGRICULTURE AT BANK OF IRELAND, EOIN LOWRY, WHO EXPLORES THE WAYS IN WHICH FARMERS HAVE TO NAVIGATE AN INCREASING 'VUCA' WORLD

Whether they are contending with the weather, market dynamics, or shifting political or economic situations, being a farmer is synonymous with risk taking and the sector is characterised by volatility, uncertainty, complexity and ambiguity – VUCA for short.

Last year brought that to life. It was a volatile year defined by dramatic inflation in farm-input prices as a result of the war in Ukraine and Covid-19-related supply chain uncertainty. This demonstrated just how interconnected global supply chains really are and the impact external events can have on Irish farmers. The war in Ukraine created uncertainty in global agri-commodity markets as both political intervention and physical challenges drove grain prices soaring.

The FAO Food Price Index, which tracks international prices of globally traded agri-food commodities, rose to the highest level since records began and to levels almost 50 per cent higher than 2020. This translated to record farm gate prices and, coupled with good yields, Irish farmers saw output levels rise by €2.5bn.

INFLATION COSTING FARMERS

Unfortunately, farmers were unable to hold onto the full rise in output values as the price of key inputs rose, with fertiliser prices trebling along with surging feed and energy prices.

Overall, this inflation in inputs, cost farmers an extra €1.5bn in 2022. Thankfully the higher prices of farm output cushioned the impact and farm profits for the sector, as a whole, increased by €1bn in 2022.

So, farmers have come into 2023 in a strong position. As a result of the strong profits and cashflow, lending to sector has fallen to the lowest level in more than 10 years – a continuation of the trend seen in recent years. Farmers have continued to de-leverage, paying down debt at a faster rate than taking

on new debt, where total borrowings on Irish farms now stands at below €2.8bn, about €2bn lower than peaks seen circa 15 years ago. It could be said that Irish farmers have never been as well placed to deal with what a VUCA world may throw up. Against a backdrop of high inflation, slower global economic growth, high and rising interest rates and monetary policy tightening, 2023 looks like the economic environment will continue to be volatile, uncertain and complex. For farmers, higher input costs look somewhat baked into farms in the short term, at least – and likely to remain high for 2023. The evolution of the war in Ukraine, and the weather will be key determinants as to price levels across key inputs such as fertiliser and feed in 2023. Inflation across the wider economy will also put pressure on other key agri-inputs used on farms.

The outlook for agri-commodities appears calmer than it was 12 months ago with overall farm gate prices expected to decline in 2023 – but still remain above pre-pandemic levels. While margins are expected to tighten in the short term, the long-term outlook for the sector remains positive but price and margin volatility are firmly back on the table.

FARMING MUST CHANGE

In this VUCA world, farming faces a new challenge: one where it is being asked (and legally obliged) to reduce its impact on the environment by lowering its greenhouse gas emissions, lessen its impact on water quality, and enhance biodiversity and nature. So, the challenge facing the sector, globally, is complex. How do we produce more food for more people while not only using fewer resources but also reversing the damage of the past? The simple answer is that the way we farmed in the past will not be how

we farm in the future. There is no doubt, but we are entering the beginning of a new era in agriculture, one that will require dramatic change.

Thankfully, in this country, there is a roadmap towards achieving our climate targets that clearly sets out the practices that need to change on farms. Operating in this VUCA world, farmers have demonstrated time and time again their resilience and ability to adapt. What is less clear is future policy direction particularly around stocking rates and the fate of the national herd. This adds a further layer of complexity to farmers taking decisions today to ensure their farms are viable and sustainable into the future. If the sector is to meet its Food Wise 2030 ambitions, along with achieving its environmental targets, policy clarity, access to finance, a supportive eco-system, and innovation will be essential.

BANKS ARE CHANGING, TOO

Banks have a unique role in helping to bridge the gap between finance and sustainability to enable the sector to transition to a lower environmental footprint. The financial sector recognises the significant challenge and opportunity that exists for Irish farmers. It can support farmers to embrace these changes in the knowledge that much of what is being asked of them will, in the first instance, enhance the environmental sustainability of the farm but can also contribute to improving overall farm profitability. It also recognises that there will be significant opportunities for farmers as times change – income diversification from activities such as renewable energy generation, carbon farming, and afforestation.

Banks are also setting their portfolios and lending practices on a pathway aligned with the Paris Agreement and committing to targets. This will see banks classifying lending on its green credentials and how they view future lending decisions.

On a practical level, while the financial performance of the farm will remain critical to the lending decision, other aspects of sustainability such as health and wellbeing, and the environment are going to become much more important. For example, at Bank of Ireland we have started to consider and incorporate environmental key performance indicators of farms such as stocking rates, and slurry-storage capacity into our lending process.

Right now, the sector is at the start of this journey. It is not going to be easy for any sector of the economy to transition and farming will be no different. It will mean farming in a different way. In some instances, it will mean increased costs, in others it will mean additional investment. But if the sector works together to enable transition, the future of agriculture in Ireland can be brigh, even in a VUCA world.

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WHY THE PRE-BREEDING PERIOD IS CRITICAL FOR A SUCCESSFUL BREEDING SEASON

IN THIS ARTICLE, MSD ANIMAL HEALTH EXAMINES WHY THE PRE-BREEDING PERIOD IS CRITICAL FOR A SUCCESSFUL BREEDING SEASON

It is widely recognised that one of the key factors underpinning farm profitability is fertility performance. Farmers are well aware of the consequences of poor fertility: increased labour, higher AI usage, fewer replacement heifers generated, less milk produced, increased calving interval, and spread in calving pattern.

Comprehensive research from University College Dublin identified two of the most influential factors that affected fertility performance on seasonal calving dairy farms to be calving spread and the quality of heat detection. Putting a focus on the drivers of these two key factors prioritises certain farm-management decisions, which will have the greatest impact on making improvements this year.

CALVING PATTERN

A compact calving pattern is driven by high submission rates alongside high conception rates, both of which have inter-related components. For a cow to be submitted for service she must be cycling, and the farmer must have a reliable method of heat detection.

For cows to be cycling, nutrition, energy, and health are top priorities after calving. Energy balance in early lactation is likely to be one of the most important nutritional issues affecting subsequent fertility. Setting farm goals around transition management of cows in order to limit the extent and duration of negative energy balance in early lactation requires regular assessment of body condition score (BCS) to ensure 90 per cent of the herd is calving down with a BCS between 3-3.25.

NUTRITION AND ANIMAL HEALTH

In relation to achieving high conception rates, there are three elements of importance including the cow, the bull, and the farm-management practices. Cows must be at least 42 days calved, healthy and not have lost more than half a BCS post calving. In terms of health status, reducing the risk posed to herd fertility performance by infectious diseases such as leptospirosis, bovine viral diarrhoea (BVD) and infectious bovine rhinotracheitis (IBR) should be part of every pre-breeding programme. Leptospirosis infection in dairy cows is associated with reduced fertility performance, poorer conception rates, abortions, and stillbirths (Dhaliwal, 1996) as well as the zoonotic risk of transmission to humans and infection of farm staff. The prevalence of antibodies to leptospirosis in unvaccinated Irish dairy herds is high at 79 per cent (Leonard, 2004) demonstrating a high level of exposure to infection. This justifies vaccination as a control strategy for every dairy herd in the country. Vaccination for leptospirosis with Leptavoid-H should be done as a primary course with two doses four to six weeks apart completed over two weeks from the planned start of mating with an annual booster thereafter. Leptavoid-H is the only vaccine licensed to protect against both strains of *Leptospira hardjo*.

VACCINATION STRATEGIES

BVD is a very costly disease that results in significantly impaired fertility performance

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due to abortions, embryonic losses and infertility. The prevalence of BVD in Ireland has been decreasing year on year but the biosecurity risk of BVD for each herd in terms of cattle purchases, boundary fences, personnel and equipment must be assessed on a farm-by-farm basis.

Vaccination with Bovilis BVD can help protect the unborn calf from infection. A primary course consists of two doses, four weeks apart given a month before breeding with a single booster prior to breeding each year thereafter. Both Leptavoid-H and Bovilis BVD can be given at the same time, minimising the handling and labour involved with administration. IBR is known for causing respiratory illness in cattle but there is a body of evidence demonstrating negative reproductive outcomes such as poor conception rates and abortions (Graham, 2013) following infection also. Complete and regular herd vaccination for IBR using Bovilis IBR Marker Live is instrumental in a herd's IBR control programme. Vaccination reduces both clinical signs and viral shedding in the case of primary infections (Animal Health Ireland). Vaccination strategies for IBR, leptospirosis and BVD proactively tackle risk associated with infectious pathogens known to reduce herd fertility while maintaining a high health status for breeding. Each farm is different so talk to your vet now and make a plan that will mitigate the risk in your herd.

HEAT-DETECTION METHODS

Effective and practical methods of identifying individual cows in heat are essential to good breeding management. Optimal herd observation of 20 minutes, five times a day, result in heat detection rates of 90-95 per cent (Crowe, 2018). This approach requires a high level of labour, skill and commitment which can be in short supply on farms today especially considering the advantages of accurate heat detection technology as an alternative. Cow monitoring systems such as SenseHub cow collars or ear tags, measure activity, rumination and eating time to build a profile of cow behaviours. Changes in activity associated with oestrus are quickly detected and notification of heat onset is delivered to the app where a timeline for optimal service is generated. Research demonstrates there is ample room for improvement in this area as the range in heat detection rates on farms of just 30-70 per cent of cows showing oestrous behaviour usually being detected (Crowe, 2018). As heat detection feeds into submission rates and overall reproductive performance, improvements here through technology are win-wins for farmers through reducing labour and eliminating the inconsistency of manual cow observations. Covering the basics well in the pre-breeding period sets up the herd for successful reproductive performance. Through monitoring of BCS, nutrition, vaccination programmes and improved heat detection, huge gains can be made in reproductive efficiency and overall farm profitability. Have a conversation with your vet to discuss last year's breeding season and what areas you can try improving for this year's season.

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BALANCED is BETTER

NEW RESEARCH REVEALS OUR TASTE FOR A SUSTAINABLE DIET, BUT CONFUSION COULD BE A BARRIER TO IMPLEMENTING CHANGE

There is a growing move towards buying and eating sustainably, but do we really understand what that means? New research conducted on behalf of the National Dairy Council (NDC) shows that the term 'plant-based', which is linked to the idea of sustainable eating, is confusing for Irish consumers. Almost half of those questioned on the topic believed plant-based eating referred to a vegetarian or vegan diet, and a further 15 per cent didn't know what it meant at all. "Given it's a term that is used frequently in relation to eating sustainably, this is an important finding," says assistant professor at UCD School of Agriculture and Food Science, Dr Aifric O'Sullivan, who is principal investigator of the 'myplantdiet' research. "We know that Irish diets are not sustainable from both an environmental and health perspective, so any confusion is a barrier, and we need to be clearer about what we need people to do to eat more sustainably."

Dietitian, Sarah Keogh.

And it doesn't have to be an all-or-nothing approach. Incorporating small changes into your diet and buying choices could be the key to shifting towards more sustainable eating.

According to the Food and Agriculture Organization of the United Nations and the World Health Organization, sustainable healthy diets should be:

1. Nutritionally adequate, safe and healthy;
2. Culturally acceptable and accessible;
3. Economically fair and affordable; and
4. Environmentally protective (respectful of biodiversity and ecosystems).

DON'T CUT, ADD INSTEAD

Definitions of a plant-based diet vary, but Aifric explains that it is based mostly on plants, including cereals and breads, pulses (peas, beans and lentils), nuts and seeds . It also includes moderate amounts of animal-based products like meat, eggs, fish and dairy. Dietitian, Sarah Keogh believes that reducing the amount of animal protein we are consuming, for our health, and the planet's, and increasing our intake of fruit and vegetables, or having an additional meat-free meal a week, is a more achievable and long-lasting aim.

"Some people have the idea that plant-based means no animal products at all and that stops them from making changes. From a nutritional point of view, we want people eating more plant foods, but they don't necessarily have to cut out animal foods to do that, just maybe reduce them. We know in Ireland that the average fruit and vegetable intake is three and a half servings a day, whereas the ideal number is five to seven servings. If you told a lot of Irish people, who are very much married to their meat, 'you've to cut that out', you're not going to get very far. But if you suggest adding in more fruit or vegetables, it makes it easier for people to think in terms of a plant-based diet."

"The Irish food pyramid, which recommends varying proportions of both plant and animal foods, is a good example of a plant-based diet if we were to actually follow it," Aifric adds. Interpreting a plant-based diet to mean omitting animal protein entirely could well be a barrier to people making more realistic changes to their current diets, says Sarah, as well as having a negative impact on their health. "I find that many people last about three months on a vegan diet before going back to their previous diet. Making smaller, sustainable changes may have a greater

effect in the long run. While only four per cent said that they had adopted a vegan diet, four times as many said they had cooked more vegetarian dinners during the week, showing that plant-based dishes that also include dairy and eggs are likely to be more acceptable.

"The big gap I see all the time is cutting out dairy and not replacing the calcium. It can be done, but I rarely meet someone who is successfully doing it. This research throws up some inaccurate perceptions around how much dairy we actually consume in Ireland. Around half of the sample said we eat about the right amount of dairy, while over a third thought we consume too much. The reality is that, on average, the majority of adults only consume two of their three recommended portions of dairy as milk, cheese or yogurt. As dairy products are nutrient-rich foods and are large contributors to nutrients like calcium, riboflavin, vitamins A and B12 in the Irish diet, we need to be careful about overly simplistic messages to reduce animal foods.

"We talk about calcium in green vegetables but the amount that you would have to eat to hit calcium targets is extraordinary. If you are making changes, it's preferable to think about what you are adding in."

Making drastic changes to a diet is unlikely to work, Aifric agrees. "Some people don't eat a lot of meat for example so general advice to reduce may not be helpful or may lead to nutritional deficiencies. Others may need more guidance about how to increase plant foods in their diets while maintaining balance."

MAKING BETTER CHOICES

Where healthy and sustainable cuts can be made, she says, is in the amount of treats we consume. "We also forget that high fat and sugar treats, wine, or even coffee have a carbon footprint too but are not actually essential or even highly nutritious so it's good to see that a third of people in the NDC survey said they were trying to consume less."

Swapping a chocolate bar for a piece of fruit is an easy win for our health, says Sarah. "There is cancer research showing that if you add an extra serving of fruit or veg, you reduce your risk of cancer by potentially 13 per cent, over your lifetime. So, there's lots to be done by putting a spoon of carrots on your plate."

THE SURVEY SAID...TWO IN THREE IRISH PEOPLE CLAIM TO BE OMNIVORES, EATING MEAT, FISH, AND DAIRY

Sarah believes that we can make changes beyond that, too.

"When it comes to sustainability, there is so much we can look at: where our food is coming from, how far it travels, the amount of food we throw away." The good news is that around half of those asked said they were trying to only consume what they needed and were trying to reduce food waste through better planning.

"This is really encouraging," says Sarah. "It shows the appetite is there for change and that people are doing what they can within their own means. As food prices continue to soar, it's not surprising that choosing foods that are affordable and nutritious are top of mind and are important considerations as we develop guidance on eating more sustainably too. We need to make eating sustainably achievable for as many people as possible."

PREVENTING AND REDUCING CALF PNEUMONIA

RUMINANT AND EQUINE VETERINARY MANAGER AT MSD ANIMAL HEALTH, SARAH HIGGINS MVB, FOCUSES ON THE IMPORTANCE OF PROVIDING THE BROADEST PROTECTION AGAINST *MANNHEIMIA HAEMOLYTICA*

Bovine respiratory disease (BRD) is a complex disease entity, of which pneumonia is the main feature. Each year in Ireland, respiratory disease is the most significant cause of deaths among calves greater than one month of age. Interactions between the animal, infectious agents (commonly referred to as bugs) and the environment can result in lesions in the lungs. The clinical cases you see on your farm with the classical clinical signs of respiratory disease such as coughing, high temperature and nasal discharge are only the tip of the iceberg, as there are often subclinical cases. The economic implication of respiratory disease is not only restricted to treatment cost and mortalities but significant long-term impacts, both for dairy and beef animals. Heifers and beef animals with a history of respiratory disease have the potential for reduced milk yield (up to 525L) in their first lactation and reduced growth rates (up to 108g/day), respectively.

COMMON INFECTIOUS AGENTS

What are the common infectious agents associated with pneumonia in calves and weanlings? Respiratory syncytial virus (RSV) and parainfluenza-3 (PI-3) are viruses commonly associated with BRD. RSV can be transmitted from adult cattle to the highest-risk group of younger stock, two weeks to nine months of age, resulting in severe clinical signs such as difficulty breathing. On the other hand, PI-3 is associated with mild clinical signs. A primary viral infection can predispose cattle to bacterial colonisation in the lungs, for example with *Mannheimia haemolytica*. *M. haemolytica* is a commensal organism (occurs naturally in the upper respiratory tract of cattle). Interactions with both viruses and bacteria can result in more severe outcomes.

To optimise calves' immunity, vaccination for respiratory disease is recommended as it will stimulate their immune system and produce antibodies. It will reduce infection and clinical signs of pneumonia. It is important to store, handle, and administer vaccines correctly and follow the correct vaccine protocol.

VACCINATION

Vaccination programmes vary depending on the vaccine used. For example, a vaccine that protects against both viral and bacterial agents namely PI-3, RSV and provides the broadest protection against *Mannheimia haemolytica* – which is often the principal bacterial agent implicated in pneumonia – is advised. Bovilis Bovipast RSP is an example of such a vaccine and its primary course involves two subcutaneous injections of 5ml administered four weeks apart. For calves, the second injection should be given two weeks before the known risk period of weaning, housing or sale. For bought-in weanlings the vaccine can be administered any time after arrival, ideally allowing a short rest period of 24 hours before handling and followed up with a second dose four weeks later.

Such a vaccine provides the broadest protection available on the market to *M. haemolytica* as it is the only cattle vaccine licensed to protect against both serotypes A1 and A6. We should not underestimate the importance of A6 serotype as one study of beef bulls, demonstrated that M. haemolytia serotype A6 accounted for 63 per cent of isolates within 40 days of arrival at a fattening facility. This vaccine incorporates IRP technology which ensures early onset of protection and reduces the multiplication of *M. haemolytica* thereby reducing clinical signs of pneumonia.

To reduce the incidence and severity of respiratory disease within your herd it is vital to implement a correctly timed vaccination programme. Vaccination alone is not sufficient to prevent disease but must be in conjunction with good husbandry practices. Contact your veterinary practitioner for further information and to discuss vaccination programmes suitable to your herd.

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ENERGY BALANCE IS ESSENTIAL IN EARLY LACTATION

NORBROOK VETERINARY ADVISOR, MAURA LANGAN, EXPLAINS WHY ENERGY BALANCE IS ESSENTIAL IN EARLY LACTATION, IN ORDER TO PREVENT KETOSIS

Ketosis is a common metabolic disease in dairy cattle and occurs when the animal's energy intake fails to meet its needs and the cow begins to draw from her body reserves, resulting in a state of negative energy balance (NEB).

Ketosis for the most part is a condition of freshly calved cows as a result of reduced energy intake in late pregnancy, the physiological demands of parturition and the sudden energy demands of early lactation.

"Although we often associate ketosis with fat cows or underfed cows around the transition period, it can also occur for a variety of other reasons," says Maura.

"At this time of year, modern high-producing dairy cows with milk fever, LDA (left displaced abdomen), mastitis and metritis might all be at risk of secondary ketosis. This is caused by the appetite suppression associated with illness and the increased energy required to deal with any infection. The effect of negative energy balance will also impact her recovery," explains Maura.

KETOSIS – WHEN AND WHAT

Essentially, ketosis occurs when there are elevated levels of ketones in the blood, urine or milk, indicating that the metabolic processes in the liver are being overwhelmed. Unfortunately, the ketones released as part of this process suppress the cow's appetite, creating a vicious circle that results in weight loss and a drop in milk yield.

As well as elevated ketone levels, cows with ketosis can display clinical signs of the condition. Clinical signs include dullness, reduced feed intake, reduced milk production and may include behavioural changes such as excessive licking or aggression as well as staggering. "Clinical ketosis is often the tip of the iceberg, and in many herds, we find that cows with the subclinical form of the disease go undiagnosed. Studies have shown that reduced milk yield, lower milk protein production, increased prevalence of LDAs and, ultimately, reduced fertility are all associated with subclinical ketosis. I would encourage farmers to be aware of the impact it can have on the productivity of their herd and, where possible, to adopt strategies to avoid it," adds Maura.

AT-RISK COWS

Body condition score (BCS) at calving is a key determinant of ketosis risk. Fat cows with a BCS of ≥3.5 are at particular risk. Thin cows (BCS ≤2.5) and those with insufficient nutritional intake are also susceptible. Any cow with additional energy needs, such as high yielders, those carrying twins or with any disease or inflammation will also be at risk of ketosis.

Where possible, farmers should identify at-risk cows in the weeks prior to calving and remain vigilant in the first couple of weeks of lactation as even correctly conditioned, low-risk cows may be susceptible if stressed; for example, following a difficult calving or a case of milk fever.

Treatment of ketosis is aimed at reestablishing normal glucose levels and reducing serum ketone concentrations. By breaking the cycle of ketone production, appetite recovers and the animal's voluntary intake begins to meet her energy requirements.

Maura describes how a bolus introduced by Norbrook can help break the cycle of ketone production and help the animal to want to start eating again.

The bolus contains propionate as a source of glucose for at-risk cows and also contains vitamins A and E, selenium, niacin, cobalt and yeast to support the liver, rumen and immune system.

"The bolus can also be used as a supportive therapy in sick or convalescent cows that are at risk of ketosis alongside non-steroidal pain relief and antibiotics, where deemed appropriate by your vet," says Maura.

GETTING THE BASICS RIGHT FOR SUCCESSFUL BREEDING

WHILE MOST FARMS WILL NOT KICK OFF BREEDING FOR ANOTHER FEW WEEKS, NOW IS THE IDEAL TIME TO PREPARE FOR SUCCESS, SAYS BERNARD STACK, INTOUCH FEEDING SPECIALIST

The breeding season is like the championship; you have to hit the ground running for the first round, as defeat here will result in cracks a few weeks later in the qualifiers and if we do not get it right here, we are facing relegation.

PREGNANCY RATE = SUBMISSION RATE X CONCEPTION RATE

Put simply, the equation above is what fertility is all about. Empty cows or cows not scanned in calf is usually the measurement of a fertility issue. To solve such issues, we need to take a closer look at the numbers, to determine why this is happening. Sometimes, small changes can yield big benefits. If we are disappointed with 15 per cent of cows not in calf in a 100-cow herd, we can get that rate below 10 per cent.

Four key areas to focus on for the breeding season are:

- Mating start date;
- Body condition score;
- Diet consistency;
- Mineral management; and
- Mating start date.

Traditionally, many herds will begin their breeding season during the last week of April. The decision of when breeding should start depends on when you want your cows to

calve next spring. Your breeding start date should be based on matching feed supplies on your farm. If your farm has a late turnout date to grass in a spring-calving system, the breeding start date needs to match this. Completing three weeks of pre-breeding checks, prior to breeding, is advisable as it gives a chance to pick out cows that may be non-cycling. Non-cycling cows often relates back to an issue at calving, such as milk fever, retained placenta, or metritis. Another issue which can be picked up at pre-breeding checks are silent heats–cows that show no signs of bulling at all. Generally speaking, if a cow does not show signs of bulling 42 days post calving, then this animal needs to be examined and treated by your vet.

Choose your breeding start date and end date effectively. Many herds. through the use of sexed semen, allow for more precise planning. Also, the traditional 12-week breeding has now been reduced to 10 weeks on certain farms using automatic heat detection.

BODY CONDITION SCORE

Ideally, cows should have a minimum body condition score (BCS) of 2.75-3.0 at the start of breeding. Achieving a body condition score of 3.0 greatly helps increase conception rates of the herd. Cows that are milking off their back and have a poor BCS of less than 2.5 will struggle to go in calf, as they will not have enough energy to maintain a pregnancy. BCS needs to be monitored closely post calving as well, since cows that are not supplied with adequate amounts of energy will lose excess weight leading to a drop in BCS. Cows should be scored regularly in a crush throughout the year to monitor their BCS.

DIET CONSISTENCY

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breeding season is ineffective, so it is best to start the breeding season on a rising plane of nutrition. Often, cows are out day and night on grass, with very little ration being fed. During breeding season, however, put the cows' needs first and the grass second. Cows require that their full energy demands are by achieving good dry matter (DM) intakes. A lactating cow can eat 3.5 per cent of her bodyweight in DM daily. A 600kg cow can eat 21kg DM daily if offered to her.

Focus on providing an energy-dense diet throughout the breeding season. Typically, cows are at peak milk yield during the month of May, so they are also at peak energy demands. Cows grazing will be offered 16-17kg DM daily, but if their requirement is 21kg DM, then this energy gap should be filled with concentrates. Feed 4-5kg of concentrate if required in order to meet the cows DM intakes. If your cows have a higher DM intake, the use of buffer feeding may be required to meet their energy demands.

MINERAL MANAGEMENT

During mid-lactation, the cow increases her DM intake from grass and receives less from supplementary feeding. It is important to ensure that the correct levels of minerals and cal-mag, are still in the diet. Ideally, the feeding rate of the parlour concentrates should have the correct pro rata levels of minerals.

As the level of concentrates decreases in the parlour, it is worthwhile to manually weigh what is in a 'pull' in the parlour to ensure correct calibration. In order to avoid grass tetany while grazing, a feeding rate of 1.1kg in the parlour requires 5 per cent cal-mag, a 2.25kg feeding rate requires 2.5 per cent cal-mag inclusion and 4.5kg requires 1.25 per cent cal-mag per tonne. The vital role minerals play in the resumption of cyclicity, and successful breeding of the mid-lactation cow cannot be overlooked. During breeding season we want a healthy immune system and a display of strong heat for cows. Deficiencies in certain trace minerals can be related to infertility if not dealt with early. For example, anoestrus behaviour and silent heats in the herd are linked to deficiencies in copper and manganese. So supplementation is a must, and organic forms are preferred, since they are more bioavailable for absorption and have fewer interactions with antagonists. The benefits are numerous. Organic selenium has been shown to significantly reduce incidences of metritis and reduced services per conception (Agovino, 2011).

Copper plays a vital role in improving fertility. Ideally, use an organic form of copper, such as Bioplex copper, in your feed throughout the breeding season. Organic minerals have a greater uptake in the cow's small intestine in comparison to inorganic minerals.

The use of an organic selenium such as Selplex has been shown to help improve the cow's immunity overall. Cows and calves fed with Bioplex calved 42 days earlier and produced an extra 170L of milk in the first 100 days. These types of results demonstrate the value of optimising your feed programme by including trace minerals. All in all, a healthy immune system is the core to having a successful breeding season. Minerals on their own are not a silver bullet but will help during breeding season. It is worth paying attention to the type of mineral being offered to breeding animals to put the best foot forward this breeding season.

Using foliar nutrition on maize crops

Growing maize crops with good forage quality and high yields will be paramount this year. Considering the increased costs associated with using biodegradable film or growing the crop without film, minimising the potential loss in yield associated with planting in the open will be key.

Agronomically, there is a lot that farmers can do to protect and maximise their investment. High yields of 40+ tonnes/hectare (t/ha) can only be achieved if the crop can access enough nutrients via its roots and leaves as the plant grows. The critical stage with respect to crop nutrition is when the crop reaches the V6 growth stage (six leaf). As rapid plant development is about to start, it is important that the necessary nutrients are applied to support this growth.

Do you know the roles of key nutrients in maize?

All nutrients play crucial roles in crop production. Some crops have a higher requirement for certain nutrients, so deficiencies of these are more likely. A deficiency of any macro or micronutrient will result in loss of yield and quality.

Zinc and magnesium deficiencies are the two most widespread nutritional disorders in maize. Zinc is important for photosynthetic activity. Magnesium is essential for the early establishment of the plant.

A deficiency is reflected in reduced crop yield at harvest. Phosphorus and potassium are primary nutrients; however, many soils do not have the capacity to deliver an adequate supply. Where phosphorus availability is reduced because of soil pH or where its uptake is impaired due to dry soil conditions, foliar phosphorus will help. It is translocated from the leaf to the roots very effectively, maintaining root development. `One, or more, of the above can often be deficient in the growing maize plant. This nutritional shortage is particularly important as the plant reaches the four-to-six-leaf stage as it is now that yield is being set. Maize, stressed at this point, can result in tall, thin plants, with poor root systems and reduced leaf area. Reduced leaf area captures less light, resulting in lower yields.

Maize foliar nutrition

A Yara maize trial in Co. Carlow last year, demonstrated the positive effect that combining foliar nutrition and bio stimulants had on crop performance. In this trial the combination of our crop-specific product for maize – YaraVita CROP BOOST (5L/ha) and the bio stimulant YaraVita Biotrac (2L/ha) – applied at the five-leaf stage increased dry mater (DM) yields by 16 per cent, which equated to an extra 2.5t DM/ha. YaraVita CROP BOOST is specifically formulated for foliar applications on maize, containing a high concentration of phosphorus, zinc, magnesium, and potassium.

When applied together, YaraVita Biotrac complements the nutritional effects of YaraVita CROP BOOST. Thanks to the unique combination of selected bioactive components and nutrients, YaraVita Biotrac activates the plant's metabolic processes to enhance nutrient-use efficiency and tolerance to low temperatures. The two YaraVita products work in harmony to maximise the ability of YaraVita CROP BOOST to promote root and plant growth and efficiently use the plant's energy reserves.

You may ask how do we know what key nutrients to include in these two crop-specific products? The answer lies with research data and knowledge that has been conducted to identify them. Yara, through its research facilities in Pocklington, York, runs a screening process through nutrient-specific trials to prioritise nutrients according to their impact on crop growth and development. Once these are established, crop-specific products can be formulated to deliver sufficient quantities of these specific nutrients. The results of two years of maize trials conducted by Yara in both the UK and Ireland have demonstrated an economic justification of using YaraVita CROP BOOST and YaraVita Biotrac together. There is a very strong case to adopt the YaraVita Maize Programme at the four-to-six-leaf stage to minimise the risk of nutrient deficiencies and abiotic stress in maize, and maximise yields.

- Set yourself breeding season targets for April
- Know the financial cost of not meeting targets
- Methodically follow a sequence of breeding decisions from April 1
- Maximise submission rates to overcome poor conception rates
- Use the six-day synchronisation programme with heifers
- Every serious-minded dairy farmer should use all sexed semen this year
- High grazing stocking rate in April-May are key to grassland management

By Matt Ryan

BREEDING SEASON TARGETS

» Cows
- Three-week submission rate: 90% of the herd (national average = 71%).
- Repeat intervals (1-17 days) 10% or less (serious issue on some farms).
- Normal intervals (18-24 days) heat returns: 70%.
- Prolonged intervals (24 days) and greater heat returns: 20% and lower.
- Non return rate (NRR) to first service: 70% (national average = 58%).
- Calving to service interval: 60 days or less.

» Heifers
- Three-week submission rate: 100% of heifers (national average = 80%).
- NRR: 80-85% (national average = 75%).
- AI one week before main herd.
- Nationally and individually among 'very good farmers' we are a long way off these targets. What are your fertility figures for 2022, and calvings in 2023?
- How can we make these targets happen? See below.

FINANCIAL CONSEQUENCE OF NOT ACHIEVING TARGETS?

» The following losses accrue
- Six weeks calving rate: For every 1% below target you lose €8.22/cow.
- Calving interval: For every one day lost, you lose 0.12c/L.
- Replacement rate: For every 1% over 18% you lose 0.14c/L.
- Days in milk: For every 30 days short of target, you lose 0.6 c/l.
- Herd age (lactations): Every one lactation below target 4.5 = loss 1.5c/L.

» **The six-week target and herd age, more or less, embrace all other losses listed.**

» **100-cow farmers on average are losing over €28,000 by not achieving these targets.**
- A serious loss, mainly due to:
  - National six-week calving rate being 66%.
  - Calving interval is 388 days.
  - National culling rate is 21% (target 18% B&W and 14% Jx).
  - National age of herd being 3.6 lactations (target 4.5+).

» **As well as the financial losses, farmers are now appreciating the convenience of compact calving from a labour and time-management point of view.**

SEQUENCE OF APRIL BREEDING SEASON DECISIONS:

» **Decide on your mating start date (MSD) based on your targeted median calving date for 2024 and the number of days from start of calving to median calving date in 2023.**

» **Based on research, the following median calving dates are advised:**
- South (dry land): February 16 (50% herd in calf by May 9).
- North (or wet land): February 26 (50% herd in calf by May 20).

» **The target number of days from start of calving to median calving date is 15-20 days for cows and 10 for heifers:**
- The median calving date is that day when 50% (half) of the cows have calved.
- Look up yours on the calving report on the ICBF site for your herd for 2023.
- Then, subtract your days from the target median calving date in 2023, to help you decide on the start of mating date.

» **It is best to start recording heats three to four weeks before MSD – early April.**
- This will give you information to identify non-cycling cows.
- Non-cycling cows may be due to low BCS, lack of iodine, cows that have retained afterbirth, had milk fever, had a left displaced abomasum, etc. – get vet to check them.
- The following programme is recommended for non-cycling cows or late calvers that calve 35+ days:
  - Day 0 (am): Insert PRID or CIDR and inject GnRH.
  - Day 7 (am): Inject PG and remove the PRID/CIDR.
  - Day 9 (pm): Inject GnRH (56 hrs post PG).
  - Day 10 (am to noon): AI all cows (16-20 hours post GnRH).
  - Of course, you must plan all this with your vet.

» **Decide on the number of dairy AI straws required:**
- For every replacement you need 4.5 conventional straws and 2.4 sexed semen straws (see March Management Hints)
- In a 100-cow non-expanding herd with 20 R2s (bulling heifers) and using conventional straws, you will require 20 easy-calving straws for the R2s, 70 straws for the cows, and beef straws for the remainder.
- Late-calving cows, calved less than 30 days before MSD, and genetically not good enough, will complicate this; therefore, use 95 dairy AI straws over four weeks.
- For larger herds, extrapolate this process to fit the number of cows,

» **A lot of time must be spent in identifying the very best cows and the best bulls to suit your farm.**

» **Identifying your best cows: The R2s will have the best genetics.**
- Your best cows will have EBI €160+, fertility €80+, % fat 0.15+ and % protein 0.10+, with positive on health traits and yielding above average kg milk solids (MS) on the milk recording.

» **Identify our 'ideal' black and white AI bulls, who must be high EBI, with fertility over €120, with a maintenance of over €20, with PDs for % fat and protein of 0.27 and 0.20, respectively, with a health figure of €7+ or as near as possible to these criteria. I have a list made out with 40 bulls meeting the 'ideal' requirement.**

» **Metricheck all cows 20-28 days after calving to make sure no infection is present.**

» **Body condition score (BCS) loss, 0.5+ score, from calving to MSD results in 20% lower conception rates; therefore, BCS the whole**

herd now and early May:

- Any cow that has lost weight should now be put on once-a-day (OAD) milking so as to be on a rising plane of nutrition for the two weeks before and after mating.
- Cows under BCS 2.75 should also go on OAD milking.
- Cows must be on a rising plane of nutrition now with no decrease in energy intakes post-mating – see Table 1 for meal feeding levels for various levels of grass intakes to achieve various levels of milk yields.

Table 1: Level of meal (kg) required to maintain BCS depending on milk yield and grass intakes.

Gras intake (kg DM)	20kg milk	22kg milk	24kg milk	26kg milk	28kg milk	30kg milk
12	2.8	3.8	5.0	6.0	7.0	8.0
13	1.7	2.7	3.6	4.9	5.9	6.9
14	0.6	1.5	2.5	3.4	4.8	5.8
15	0.0	0.4	1.4	2.3	2.7	4.7
16	0.0	0.0	0.3	1.2	2.2	3.1
17	0.0	0.0	0.1	0.1	1.1	2.0
18	0.0	0.0	0.0	0.0	0.0	0.9

» Establish your annual yield by multiplying the peak yield by 215-225;
- Over-feeding may put you into the high stocking rate band.

» Good grass can support 20+ litres/cow/day.
- Make sure to back-check cows' intakes per day during breeding.

» Be alert to volume and % protein decreases as these are indicators of energy deficits in the cows' diet. It may be due to:
- Poorer grass quality.
- Lower intakes due to wet weather or very low covers in dry weather.
- A lot of bulling activity.
- Health issues.

» Mineral issues: If you suspect problems in this area, blood test 10% of your cows, get a composite grass analysis from four to five of the first paddocks being grazed in the second round,
- A farmer targeting a median calving date of February 20, 2024, should follow this plan:
  April 20 (-10 days); tail paint all cows red and record heats as they occur;
- April 23 (-7days): MSD for heifers. Put on scratch card and serve for next six days;
- April 29 (-2 days): PG all heifers not served. AI as they show heat;
- April 30 (-1 day): Paint blue, all cows that have shown heat;
- May 1 (0 day): Mating start day (MSD) for cows;
- May 11 (+11 days): Vet examines all non-cycling cows (red paint).

» This plan will help you achieve the three-week 90% submission target.
- As an alternative to the aforementioned treatments and where the six-week calving rate is poor on a farm, I recommend the 'why wait programme'.
- This involves moving cows being served in week two to week one, and from week three to week two, but you need very good pre-mating records.
- See Table 2 for the date/procedures which must be followed to the letter of the law.
- You must accurately identify and record cows coming on heat during the last 21 days before MSD – mark them with a special colour or marking, as per Table 2 suggestions.
  - That means for a MSD of May 1, pre-mating heat recording must start on April 5-7 with all calved cows painted red.
  - Cows identified as being on heat in weeks one, two, and three are painted yellow, blue, and green, respectively, leaving the red ones to be seen by the vet.
- To move week-two expected heats to week one, all cows with blue paint should get 2cc PG on the MSD.
- On the May 7 (or seven days after MSD), cows with yellow paint should get 2cc PG.
  - They will come bulling two to four days later (cows rarely come on heat the day after PG).
  - With this programme you will have AI-ed 60% of your cows within seven days and 90% within 14 days of MSD.
  - Many of my clients have successfully done this over the last few years, with very good calving results subsequently.

» As you will see from Table 2, I am recommending an early scan, 32-39 days post service. It is done only once per week as outlined, scanning cows that have not been served a second time/ are supposed to be pregnant.
- Whether you do 'why wait' or not this early scanning option is very worthwhile, instead of waiting until 30 days after the end of breeding season, which only confirms pregnancy.
- So, you are confirming pregnancies, achieving early identification of cows you have missed days 18-24, and a good scanner will identify 'weak' pregnancies.
- From this you could PG non-pregnant cows and re-serve again in a few days.

Due to their biological position, heifers take six to seven days longer to go back in calf the second year; hence, the need to calve the heifers six to seven days before the cows.

» SUBMISSION RATE IS KEY!
- High submission rate, target 90% in three weeks, is the key to deliver the 90% six-week calving rate.
- Heat detection is difficult as the following facts show:
  - Each standing mount only lasts two to three seconds.
  - The average number of mounts by Holstein-Friesians and heifers is 11.
  - Bulling lasts three to 30 hours, averaging 11 hours.

Table 2: 'Why wait programme' for May 1 MSD* or any MSD*

MSD = Mating start date

Group	Heat in the period pre-MSD (*)	Colour paint on cows back	Expected period post MSD* (days)	PG date to achieve 2 to 1, and 3 to 2	Colour paint	Scan period post MSD	Colour paint	The recommended weekly scan day will be this day post MSD*	Actual scan date for a May 1 MSD*
1.	-21 to -14 days	Yellow	0 to 7 days	None	Pink	32 to 39 days	Pink	+39 days	June 8
2.	- 14 to - 7days	Blue	7 to14 days	May 1 or MSD	Pink	32 to 39 days	Pink	+ 39 days (week two to week one cows)	June 8
3.	- 7 to 0 days	Green	14 to 21 days	May 7 or MSD +7 days	Orange	39 to 46 days	Orange	+46 days (week 3 to week 2 cows)	June 15

- So, you only have a window of 25-40 seconds to see some cows on standing heat.
- If you miss her, you have lost €140-€180.

» What heat detection aids are available?
- Tail paint with non drip household emulsion at a cost of 20-25c/cow for the season. But be careful to keep strip only two inches wide.
  - Clip hair prior to 'painting' as paint will come off easier and layering will be minimised.
- Specialised tail paints with brush on bottle costing €1/cow for the season.
- Aerosol sprays, costing 30-80c/cow.
- Kamars, costing €1.50-€1.80 each.
- Paint sticks, costing 15c/cow, or so, every time it is put on.
- Scratch cards, recommended for heifers.
- Vasectomise bull, but do not use him until five to six weeks into the breeding season as he will be 'murdered'. You still have time to get the vet to 'fix up' an uncastrated yearling. You need one for every 30 expected bulling cows.
- Computerised systems, but they made need back up with tail paint.
- Five observations per day, but this is very demanding.

» To convince you to use paint, the following research data is worth remembering:
- If 90-100% of the paint is removed, then there is a 95% chance the cow is bulling.
- Even if 50% of the paint is removed there is a 70% chance she is bulling.
- So, you should bull cows when paint is gone.

» To avoid confusion, it is essential to put on the paint correctly:
- A nine-inch long and only two-inch-wide strip from the top of tail head forward to the highest point. Simple, but this is key!
- If it is wider or longer than this, you will be confused if some paint is removed.
- Use scratch cards for heifers – don't use paint.

» When is the best time to AI?
- The optimum time is 12-24 hours after heat onset. And 14-20 hours for sexed semen.
- Poorer results arise if served earlier than eight hours or greater than 28 hours.

» The AI technician needs a suitable crush to be accurate. The ideal service crush is free standing and 1.75m x 0.71m with a 1.37m chain at the back to hold her in – no steps.
- As they will be working on their own this year, have a good communication system for them on the day. With the sire advice the technician will know, in advance, which AI bull goes on which cow.

SIRE ADVICE – A FANTASTIC PRODUCT!

- I am amazed how few farmers use this wonderful facility.
  - It is more important than ever this year so that the AI technician has a clear message without you being there looking over their shoulder.
- Use ICBF Sire Advice to match your AI chosen bulls with your cows. Follow these steps:
  - Click on Menu > Applications > Sire Advice > Manually enter Bulls > Add (green on right hand side) > add the AI bull that you have previously identified > Straw Allocation > Run Sire Advice > Save > send to AI.
  - Or you could go to Sire Advice Plus where, effectively, you identify your best cows for mating to the best AI bull; your cows for culling; your cows for beef AI/bull and cows for cross breeding. Farmers with very high cow genetics MUST use this option, even if time-consuming, it will be worth it.
- In Table 3, I outline my selected B&W bull list for 2023 – it may be incomplete, but it gives farmers with a preference to B&W bulls an opportunity to choose what I consider to be the ideal or near ideal B&W bull:
  - EBI ranges from €274-€387; fertility ranges from €108-€209; maintenance ranges from €15-€28; kg MS ranges from 17.5-36; PD for % fat ranges from 0.15-0.48; while the PD for % protein ranges from 0.11-0.29.
  - Health, carbon, calving and management also need to be taken into account.

Table 3: My Suggested 2023 B&W AI bull list (incomplete). Source: Various catalogues and active bull list.

Bull code	Bull code	Bull code	Bull code
Sexed/easy calving	Sexed/n ot easy calving	Conventional/ easy calving	Conventional/ not easy calving
FR6960	FR6547	FR8893	FR8820
FR7938	FR7926	FRX212	FR 8466
FR6469	FR6520	FR8878	FR3722
FR6484	FR6625	FR6623	FR9211
FR7926	FR7143	FR8637	FR7953
FR7932	FR7311	FR7866	
FR7890	FR6517	FR7167	
FR6052	FR5803	FR9151	
FR6628		FR9019	
FR7791		FR7875	
FR8403		FR5208	
FR6439		FR7170	
FRX134		FR7011	
FRX131			
FR7365			

Use a stock bull if you wish to reduce profit by €100 per year for every cow in your herd.

EVERY DAIRY FARMER SHOULD USE SEXED SEMEN

» In relation to the male dairy calf, dairy farmers are very conscious of their responsibilities. One of the ways they can act on this responsibility is to minimise the number of dairy bull calves being born.
- That is achieved by using sexed semen, which delivers nine heifer calves for every 10 dairy AI calves born.
- My March Management Hints outlines Stephen Butler's suggestions for making this new practice a success.
- Contrary to the past, there are 200,000 sexed semen straws available from the very best AI bulls.
- As maiden heifers are a major focus, I have listed the easy-calving sexed semen bulls in Table 3 that I consider will add to gain to every B&W herd.
- Farmers that, for whatever reason, are not ready to adopt sexed semen should consider a 'contract mating' agreement with a very high EBI herd as outlined below.

YOU MUST SYNCHRONISE HEIFERS

- Anyone who tells you they don't do this is telling you they don't believe research, as this is essential if you want compact calving next year,
  - As a result, 50% of heifers will calve within 10 days and all will calve in February.

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- Everyone is familiar with the seven-day synchronisation programme but as most farmers using sexed semen will be doing FTAI (fixed time AI) I will outline it.
  - FTAI for heifers – planned with your vet who supplies the drugs.
  - Day 0: Insert PRID/CIDR.
  - Day 5: Inject PG.
  - Day 6: Inject PG and remove the PRID/CIDR.
  - Day 8: FTAI, 48 hours after PRID/CIDR removal and inject GnRH

» This is very successful but R2s must be above target weight, on their third cycle, and on a suitable plane of nutrition (not a bare paddock near the farmyard!)

» If 30% of the heifers have not been mated on day six, do not proceed with the seven-day synchronisation programme as something is wrong.

» There are other options – talk to your vet or adviser.

» It is imperative that you have made your VET and AI technician fully aware of your plans.

» It is almost certain that in most parts of the country, iodine is deficient or marginal, therefore, put 1cc/hd/day of iodine in the water trough for heifers from April 1-June 1.

GRAZING STOCKING RATES FOR SUMMER

» Aim for the following grazing stocking rates, which will free up the remainder of the farm for silage and you can calculate if those acres delivers enough silage for next winter:

Animals/hectare	April-May	June-July
Cows	4.7	3.6
Cattle (wt/ha)	2,500kg	2,200kg
Calves/ha	22	14

» If these high stocking rates result in grass being tight you can graze some of the silage ground. But you must make this plan because silage ground will get 70 units N/acre whereas if you depend on taking out surpluses off grazing paddocks, they will only get less than 40 units/acre.

» This plan ensures a large first cut which is the cheapest silage.

SHORT REMINDERS

» Short of grass leading into the second rotation.
  - Establish the average farm cover (AFC) by measuring it immediately.
  - You need an AFC of 600-700 in early April with the following AFC per cow:
    - Most of country: 180-200.
    - Wet/cold land: 200-210.

Pre-grazing covers (PGC) of 1,200-1,300 and a PGC of 1,500-1,600 for the start of third rotation.

» Meal will need to be fed as per Table 1.
  - So as to feed 800-900kg/cow this year, you should not average more than 3kg meal this month but the preferable amount will be 1-2kg per day.
  - 35-45 units of protected urea + S per acre will need to be spread on most farms while good clover swards will need none. Two bags of 18:6:12 will have merit on some farms.

» Make sure to apply all your slurry now (for a lot lower losses) on your silage ground but not exceeding 3,000 gallons per acre.
  - Use 60-70 units/acre of urea, discounting for slurry N and residual N from grazing.

» Graze silage ground a second time before closing mid-April. This will alleviate grazing grass shortages and reduce spending by three to four times the cost of grass on meal.

» Contract mate with a high EBI farmer if you have a low EBI herd and you are worried about selling dairy male calves.

» This is a great system and should be adopted because if the high EBI farmers have any sense, they should plan to have the minimum of dairy heifers being born – less than 25% of the cow numbers.

» What I'm talking about above is a legal agreement whereby the low EBI herd farmer agrees to buy X number of dairy heifer calves next February at an agreed price for an agreed genetic merit animal.

» In two years' time you could have €260 + EBI heifers and fertility over €120 capable of giving you 9% fat and protein.

» The low EBI farmer can put all his cows in-calf to easy calving beef AI bulls – the advantages are obvious.

Did you know?
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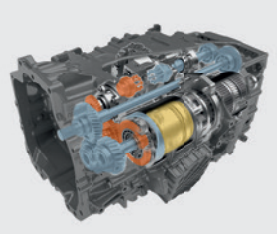

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>
> Andrew Harris, ARION 660 CMATIC, May 2022

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FROM THE CAB

THE NARROW TRACTOR WITH WIDE-RANGING TECH

WITH THE NEW 5ML SERIES, WHICH INCLUDES THE FLAGSHIP 5130ML, JOHN DEERE SAYS IT HAS INTRODUCED ITS 'MOST INTELLIGENT AND POWERFUL NARROW TRACTORS FOR USE IN HIGH-VALUE CROPS', TO DATE

To make working with specialty crops easier, the 5ML offers a comprehensive John Deere technology package for precision farming. A unique feature is the integrated AutoTrac guidance system, according to the company. The AutoTrac display has been integrated directly into the tractor's dashboard, eliminating the need for additional activation or display.

This, the company says, saves additional costs. With its equipment, the 5ML makes it possible to combine different work steps. The integrated guidance system enables the driver to deliver a high quality of work even on long days. They can fully concentrate on the implements as the tractor itself stays on track.

Farmers now have to document their work processes in increasing detail, which means additional effort. With the optionally available Gen 4 display on the 5ML, every step of the tractor's work can be easily documented and securely transferred to the John Deere Operations Centre, which is available free of charge. Here, all operations can be monitored, planned, and analysed, enabling the farmer to make informed agronomic decisions. With '1ClickGo AutoSetup' from John Deere, settings for the documentation and execution of the work steps, such as an application rate for a crop protection measure, can be set up via the operations centre.

As soon as the tractor enters the respective field, the defined job appears on the display. All the driver has to do is confirm and start working. This helps save set-up time and ensures error-free documentation.

STRONG

The John Deere PowerTech Plus engine in the new 5130 ML is a 4.5L four-cylinder with a solid torque rise of 30 per cent and a maximum output of 134hp. The mechanical PowerQuad Plus transmission has four of the optionally available Powr8 transmission eight power shiftable gears. When range shifting the matching powershift gear is automatically selected. The 5ML not only impresses with its engine power, but also with its hydraulic output of 117L/min, according to John Deere. This allows implements with high hydraulic power requirements to be connected directly to the tractor hydraulics without the need for an external PTO-driven hydraulic pump. Furthermore, a combination of different applications is possible. Time can be saved by, for example, pruning trees and tilling the soil at the same time. In addition, the tractor is ready for use with front loaders.

A special feature is the 5ML's lift capacity,

which totals 4,900kg at the ball ends of the rear hydraulics. At the front hydraulics it is 2,900kg, with a payload of 3,500kg. Combining a high payload with maximum lifting capacity enables the attachment of large implements, which increases the effectiveness and productivity.

Furthermore, the 5ML stands out in terms of its rugged design. Fenders, fuel tank and rear taillight enclosure, as well as the door seals, are made of steel and are therefore particularly robust. Smooth edges in the design ensure that crops are not damaged when driving through narrow stands.

SAFETY AND COMFORT

The 5ML's cab is equipped with an electronic joystick and a large LCD display in the dashboard. This provides an excellent overview of the tractor settings and increases operator comfort, says John Deere. The electronic joystick makes it easy and convenient to control implements. With the iTec headland management function, the driver is noticeably relieved by the automation of the work processes when turning at the headland. The category 4 cab filter system (according to EN 15695) integrated into the roof of the driver's cab is available as an option and provides protection against dust, aerosols and vapours that are hazardous to health.

PUNCHESTOWN, AHOY!

Well, readers, here we are into the second quarter of 2023 already! It seems like only yesterday that I put the Christmas decorations in the attic, but time waits for no one, and it is eating into this year like a starved lion on a carcass in the wilds of the jungle!

Why is it that when you get older, the years seem to fly by? When I was 18, I couldn't wait 'til I was 21 to hit the club, have a few pints, get a key to the door, and all the rest. Now, I wish I could hit the brakes to slow down the speeding years. But, we plough on!

Now, let's get down to the business at hand. I see that there is a vast difference in fertiliser prices between the North and the Republic, with some farmers located as far down as Wexford, receiving fertiliser from across the border. Tillage, beef and dairy farmers will track the best possible prices they can get as the spreading season approaches – especially with a differential of up to €250 per tonne, year on year – and if it means going north of the border to get the best rates, they will do it. And, it is understandable. It is all about the bottom line at the end of the day. There is an expectation that co-ops and merchants will adjust their rates over the next few weeks; with the bad weather and poor ground conditions over the last while, farmers are holding firm on buying.

The new National Dairy Beef Welfare Scheme 2023 has opened and there is an increase in capacity this year with farmers now able to claim €20 per head for up to 50 calves, up from 40 last year. There is a total fund of €5 million available; a nice boost to the sector.

There has also been some good news for farmers with traditional farm buildings on their land as the the building scheme is now up and running with grants of up to €30,000 available from 2023 to 2028 for restoration. There are fine farm buildings all over the country that could do with a new lease of life; they add a lot of character to a farm.

On the tillage front, we have heard that the Minister for Agriculture, Food and the Marine is to launch a Food Vision Tillage Group, like the ones he established for dairy, beef and sheep. The news has been welcomed, generally, by the sector but it highlighted that there are many hurdles to overcome, and one priority will be to address the pressure on land prices coming from the dairy sector.

As contractors' charges look set to rise by 5 per cent in 2023 owing to the increase in costs on farm machinery, fuel, labour and insurance it looks like pit silage will go to €175/acre and may rise to €187/acre (including VAT) this year, according to the Association of Farm and Forestry Contractors (FCI). The FCI has just announced the appointment of a new managing director, Anna Gleeson Hanrahan, who will be taking over from Michael Moroney. Michael will remain as communications director.

On the show front, the FTMTA is bucking the trend as all leading manufacturers are starting to book in for its summer show, which will be held, outdoors, on July 5-6 in Punchestown. A trend in the UK and Europe has seen some major manufacturers pull out of similar events. Not so for Punchestown where household names like John Deere, Claas, Kramer, Fendt, Valtra, Landini, McCormick and many more have already registered.

Until next month, my friends, farm wisely and farm safely.

100 YEARS OF THE 'ALL-PURPOSE TRACTOR DESIGNED TO REVOLUTIONISE THE INDUSTRY'

Case IH has reached a milestone, as it celebrates the 100-year anniversary of the Farmall tractor. The iconic Farmall model was initially introduced in 1923 as an all-purpose tractor designed to revolutionise the agriculture industry, according to Case IH. This celebration will take place during a year-long, multi-faceted campaign anchored in the concept of Farmall being 'the one for all'. Through social media, video stories and a dedicated microsite, everyone will get the opportunity to learn more about the history and continuous evolution of Farmall.

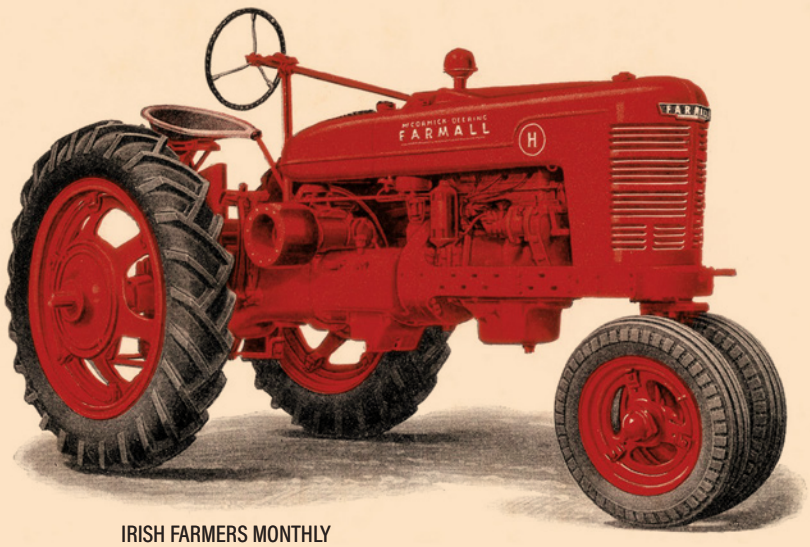
"In 1923, we set out to design a tractor that could replace horses and, today, our Farmall still serves as the workhorse on farms across the globe," said Case IH global brand president, Scott Harris. "Generation after generation, Farmall has been a symbol of modern farming, and we're excited to bring these stories to life over the course of 2023."

MAJOR MILESTONES FOR FARMALL INCLUDE:

- 1923: International harvester engineer Bert R Benjamin designs the first Farmall prototype;
- 1931: The F Series is presented for farmers with more acreage;
- 1939: Second generation Farmall designed by Raymond Loewy;
- 1941: Farmall introduces the world's first diesel row crop tractor;
- 1947: The 1,000,000th Farmall rolls off the line;
- 1958: The most popular tractor in the US, the Farmall 560 is introduced;
- 1965: First 2WD row crop tractor to exceed 100 horsepower is a Farmall;
- 1971: Farmall goes global with tractors sold in 125 countries and components made in eight;
- 1974: Case IH sells its 5,000,000th Farmall – the first tractor to ever reach that number.

With the reintroduction of Farmall in 2003, Case IH has continued to expand the line-up of products spanning from 31-105 horsepower. The global Farmall legacy continues today with more than 30 models to choose from.

"Case IH is committed to creating a sustainable and productive future," continued Scott. "We are proud to have 100 years of Farmall as our legacy and we're excited to be looking towards the next evolution of this tractor and what it will mean for our community of farmers worldwide."



'READY TO WORK, BUILT TO LAST'

With 10 models to choose from, the MX Manubal bale-handling range lifts up to four round or square big bales with complete confidence and safety, according to Farmec.

The Manubal C40 with optional power-control system matches grip force to weight, density and size of bale to provide damage-free wrapped-bale lifting. The top of the range V7000 features a 2.55m-high grab fitted with 14 forged claw tines, pivoting lower tines and a top bumper that lifts and stacks four big square bales or three round bales in complete safety. Its large cross-section tubular mono block frame has a wide, strong height extension for holding and pushing bales into position.

With its heavy-duty construction, integrated grip with reinforced tine fixings and bushed pivot points, the MX Manubal range is ready to work hard and is built to last, says Farmec.

SERVO T 6000 GETS IMPORTANT 'ON-LAND' FEATURE

Pöttinger has added an important feature to the equipment options on the Servo T 6000. With the on-land package, the semi-mounted reversible plough for tractors, with an output of up to 500hp gets additional application flexibility.

Switching from ploughing in the furrow to ploughing outside the furrow takes just a few simple steps, according to the company. Soil conservation is enhanced by using tractors with wide tires, dual wheels or crawler tracks for efficient power transmission. However, if this is not possible due to the site conditions, the plough turnover mechanism can also be set for in the furrow if required.

When conditions change, the switch between in-furrow ploughing and on-land ploughing is made very quickly in a few steps. The hydraulic swing-out, on-land beam link pushes the frame of the SERVO T 6000 outwards so that the plough follows the tractor centrally. This means that it can be used with tractors with an outer width of up to four metres, providing plenty of space for dual wheels and crawler tracks. To ensure consistent depth guidance when ploughing outside the furrow, an optional depth wheel provides support in front of the first plough share so it is guided at the precise working depth. This is designed as a space-saving pivot depth wheel within the plough beam. Due to intelligent use of the spool valves, no additional connection is necessary on the tractor for the hydraulic adjustment mechanism, according to Pottinger. Large tractors are often fitted with wide tyres or dual wheels, this results in not enough space in the plough furrow and driving over ploughed ground is sometimes unavoidable. This is where the Servo T 6000 with the on-land equipment option comes in, because the tractor drives outside the furrow on the ground that has not been ploughed. This not only improves the tractor's power transmission to the ground, but also conserves the soil due to the large contact area of the tractor and minimises harmful compaction in deeper soil layers. Likewise, it eliminates the risk of smearing the bottom of the furrow due to wheel slip from tractors driving in the furrow. Preventing compaction promotes crop root growth, soil life, and ensures access to water and nutrients. This is the basis for a healthy crop and a successful harvest. Driving outside the furrow while ploughing ensures a straight pull line, this results in more efficient power transfer from the tractor to the plough and less side pull, reducing wear on the landside. Guidance systems can be used for increased convenience, which ensures precise work and reduces driver fatigue. In addition, the tractor is level with the ground due to no wheels driving in the furrow, ensuring a straight and more ergonomic sitting position for the driver, which is especially important on long working days.

Signing and shaking on the official share purchase agreement between Kverneland Group and BC Technique, Phenix Agrosystem: president and CEO of Kverneland Group, Yasukazu Kamada; and current owner of Phenix Agrosystem, Mathias Bounon.

KVERNELAND ACQUIRES FRENCH WEEDING MACHINERY COMPANY

Kverneland Group has acquired French company, BC Technique, a leading producer of inter-row cultivators, rotary hoes, guidance interfaces and tine harrows, which are distributed under the Phenix Agrosystem brand.

These products are well fitted for the future of sustainable farming, and enable the customers to achieve efficient, accurate and consistent cultivation and weed control, the company said in a statement. President and CEO of Kverneland Group, Yasukazu Kamada said the acquisition further strengthens Kverneland Group's and Kubota's strategic commitment to provide sustainable arable farming methods by adding this important product portfolio. "There are synergies in bringing the product systems and solutions from these two companies together and, thereby, also valuable benefits for the distribution partners and farmers." Phenix Agrosystem distribution partners and customers are an important asset, and the CEO confirmed the continuation of the Phenix brand and its distribution. In parallel, the products will be introduced under the Kverneland and Kubota brand and distribution networks. Current owner of Phenix Agrosystem, Mathias Bounon and his team, are continuing in the BC Technique company to support the transition. "Kubota and Kverneland Group are sharing the same vision and development strategy as Phenix Agrosystem. We see great opportunities and synergies in becoming part of this Group. It will strengthen the Phenix products presence across the world, supporting environmentally friendly farming practices, making farming more sustainable and healthier."

Tom Murphy
Professional Agricultural Contractors of Ireland

A SIMPLE QUESTION?

There are times when you lose the will to live; trying to get simple information from local authorities or government departments are times when you could happily ask the good Lord to beam you up.

We in PAC Ireland pride ourselves on dealing quickly and efficiently with the many queries our members ask. Many questions are straightforward; we have heard them before and can give immediate advice. Sometimes the question may be about a legal issue where we can save members significant time and money. Occasionally, you get a query where you know the answer but need confirmation. Such was the case recently, where the opinion held by the local authority was at odds with a government department.

A member of PAC rang the office saying that when paying the motor tax on a recently purchased agricultural tractor, she was asked what the tractor would be used for. Replying, she said it would be used on farm and for off-farm, agricultural-contracting silage operations. She was then told by the official that agricultural contracting attracts the higher motor tax rate of €333. Even though she had other tractors taxed at the lower rate of €102, they would not budge. She was asked to sign a form, in the presence of a Garda, confirming the tractor would not be used for carrying out off-farm silage work. Of course, she couldn't do this.

Here, started six days of back and forth. First, we spoke to the local authority concerned (I will save their blushes by not naming them) and advised that they were incorrect in charging the higher rate and for demanding that the above-mentioned declaration be signed. No joy.

Next, we contacted the motor tax head office in Shannon and were directed to the Department of Transport, which is responsible for creating motor taxation policy.

We asked if there had been any change in policy that might cause the local authority in question to issue such a demand. 'Sorry, it's above my pay grade to answer that, someone else will call you back.' Now, it's Friday afternoon, I phone again: 'Will you please contact the errant authority urgently and tell them they are incorrect in the action they are taking?' I said. 'No, sorry, the boss would be the one to do that,' I was told. 'Great, may I speak to them?" I ask. 'Sorry, he's out of the office and won't be back until Tuesday.'

Meanwhile, we're back and forth to our member explaining the situation.

The next week, we start again, and to make it simple, I inform the person, whose pay scale is not very high, that the department had previously given a reply to a parliamentary question regarding the motor taxation rates for tractors used for farming and by agricultural contractors and I quoted that reply. To my knowledge the law is still the same and I asked if they would explain to the local authority in question that they had made an error. On Thursday, the issue was resolved.

After an amicable telephone conversation with a senior official in the local authority, amendments were made to the declaration form to include tractor use by agricultural contractors for farm-related work. Although the local authority has made things right, at the time of writing there has been no response from the Department of Transport.

One does have to beg the question as to why it took so long to resolve such a simple query. Passing the buck backwards and forwards would drive you to drink! What chance does an average person have if we, as professionals, who are well versed dealing with such problems, are left tearing our hair out?

For those who remember the television comedy Yes Minister, this scenario would have made for a brilliant script. We would all say it's a bit far-fetched, but truth is stranger than fiction.

PÖTTINGER ANNOUNCES EXPANSION IN IRISH MARKET

Austrian machinery company, Pöttinger, has announced a 'growth plan' for the brand across the Ireland including the appointment of more dealers in certain counties in the coming months. Strong, well-supported dealerships have been part of Pöttinger's strategy for some time, according to general manager, Diarmuid Claridge. "We operate through a strong dealer network. While they are key to our success, the intention is to support these dealers in growing the Pöttinger, brand through their network," he said.

"We plan to appoint more dealers in certain counties over the coming months, giving them the opportunity to be more successful with Pöttinger. This also benefits our customers, farmers and contractors," he said.

This year, the grassland and arable specialist celebrates 10 years of the foundation of its subsidiary, Pöttinger Ireland, which is located in Clonmel, Co. Tipperary. The company has doubled its turnover in the last six years. In the 2021/22 business year, that turnover was around €5.4m and the increase over the previous year was 'remarkable, at 25 per cent' according to Diarmuid. He credits the team in Clonmel, and its many collective years' experience in achieving this.

"Our continued success and growth in Ireland are due to the dedication and commitment of our seven-person team. Our long-serving team member and spare-part manager, Michael Burke, will celebrate 30 years of service with Pöttinger this year. This Irish team is highly motivated and passionate to continue supporting the future growth course of the agricultural machinery company.

"We have a clear joined vision for the future, and that is to provide the best working results for our customers by developing the best products and services to greater enhance on farm efficiency, productivity, profitability and lifestyle," Diarmuid said.

MICHELIN VERSION OF ITS TWO-IN-ONE EVOBIB TYRE LAUNCHED

Michelin has launched a new version of its two-in-one EvoBib tyre – the first agricultural tyre on the market specifically designed to be used with Central Tyre Inflation Systems (CTIS), which, the company says, makes it possible to obtain performance both on the road and in the field due to its adaptive design. In field use, the footprint is maximised due to the tread design, and its very low-pressure structure – utilising Michelin Ultraflex Technology – which reduces soil compaction and improves the tractor's traction capabilities.

In road use, the reduced footprint and the central rib of the tread pattern cut rolling resistance, while longevity is improved and fuel consumption is reduced. The new tread design has also been adapted to optimise longevity and offer excellent traction capabilities until the end of the tyre's life. In the new EvoBib, the tyre casing is now pressure field operation (PFO)-rated, a standard that allows manufacturers to increase the load capacity of their tyres for field use.

The new EvoBib has a footprint variation of 47 per cent between road and field, double that of a very high flexion (VF) tyre such as the Michelin AxioBib 2 (24 per cent) that would have usually been used with a CTIS. The new EvoBib increases in traction by 15 per cent compared to a competitor's VF tyre with a hybrid tread pattern, and the same traction capability as a VF tyre with a lug tread pattern (under normal field conditions), according to Michelin. Fuel consumption is also improved, close to that obtained using a standard road-profile tyre. While there's a reduction in consumption of two litres per hour compared to a competitor's hybrid VF tyre, there's a reduction of one litre per hour compared to Michelin AxioBib 2 with CTIS, the company says. Two sizes of Michelin EvoBib – VF 710/70 R 42 and VF 600/70 R 30 – are now available, which can be used on tractors between 200-300 hp, equipped with CTIS. The range will be expanded in 2023 with the addition of new sizes for larger tractors of more than 300hp.

VENDRO RANGE ENHANCED WITH FOUR NEW TRAILED TEDDERS

Krone has expanded its latest range of Vendro tedders with four new trailed models starting with the T 900 (9m), T 1020 (10.20m), T 1120 (11.20m lower linkage), and the C 1120 (11.20m three-point linkage). These new models are eight and 10 rotors machines with five to six tine arms per rotor.

Grass tedding has become a vital part of making high-quality silage, and Krone has released the mid-range of trailed machines to meet the demand from farmers and contractors looking for larger high-output tedders. The Vendro range now comes with the Krone OptiTurn rotors, as standard – with exceptional contouring allowing the curved 3D tines to cleanly pick up the crop and spread it out evenly with no lumps.

Krone OptiTurn rotors have been tested and developed in Ireland over the last number of seasons and have proven capable of adapting to all conditions and demands of the Irish farmer looking for a faster wilt, explained machinery demonstrator with Farmhand Ltd, Declan Smyth.

Quick unfolding in the field is possible without the need to unlock the arms mechanically via a rope thanks to a double-acting system that folds the arms and the wheels into transport/work position within seconds. Border spreading is controlled, hydraulically, as standard, on all new Vendro models and is operated from the comfort of the cab. This means the grass is being tedded away from the boundary and back into the field, while also maintaining an even spread.

Like all Krone tedders, the new Vendros have a complete mechanical driveline. The driveline consists of the main gearbox with a slip clutch, the drive shafts, the maintenance-free Octo Link finger clutches plus the sealed rotor gearboxes for minimum maintenance. The Vendro C 1120/1120 Plus model has a three-point headstock as standard. Its wings are operated from a single-acting spool for extra stability on slopes. The working height is quickly adjusted on a simple crank handle or hydraulically from the cab. The C 1120 chassis uses the transport wheels as jockey wheels in the field to ensure the OptiTurn tines are guided along the contours for an excellent quality of tedding. Another feature of the C 1120 is the hydraulic floating system on the transport axle which is a standard feature. The intelligent weight distribution system ensures a smooth ride on the headlands and prevents scuffing when turning. The C 1120 is available with a hydraulic curtain for tedding along headlands, the unit is mounted on the right-hand side in the direction of travel. The C 1120 is fitted with 10.0/75-15.3 tyres as standard but is also available with wider tyres (15.0/55-17) as an option.

Pat McCormack, President, ICMSA

Banding should be abandoned, for the time being

It's the oldest trick in the book and we all know it well. We've seen it so many times before, where the real benefits of a position or policy are demonstrably unproven, those pushing that position will ballast what they know to be their fundamentally weak position with (A) breezy confidence designed to disguise real misgivings and (B) hilariously short timeframes designed to prevent the detailed study that will reveal the inherent deficiencies. Look at those two tactics and then consider the banding proposals recently communicated by the Department of Agriculture, Food and the Marine. Was there ever a more clear-cut example of an attempt to 'ram' through what are still unproven and controversial measures? Note the months and months of delay in the department's communication with the affected farmers and then compare that to (even allowing for the extension) the insultingly short time that farmers are being given to respond?

The ICMSA notes that there has been no official response to the recent Teagasc study, *The Impact of Nitrogen Management Strategies within Grass Based Dairy Systems*, which seems to prove that the nitrogen (N) concentrations in streams and rivers are more influenced by the physical characteristics of the catchment areas surveyed than they are by the stocking rates of local farms – a finding by a government body that directly contradicts Government policy, which is that stocking rates are the prime cause of such nitrates concentrations.

So, we have reports by Government agencies that appear to contradict the basis for Government policy. The ICMSA repeats its call for an immediate pause in the rolling out of this unproven and utterly ruinous banding policy, which is going to undo a decade of dairy sector development as well as inflicting massive income loss on the dairy farmer income – the economic engine of our local communities. The questions around this policy are entirely valid and they have not been addressed. Farmer suspicions will only be stoked by the fact that after 18-odd months of silence, letters arrived to farmers demanding completion and response within just eight days of those letters' receipt and in the middle of the busiest time of the dairy farming year. The original demand that farmers should have their responses completed and submitted by March 16 was grossly insulting after the outrageous delay in communicating with them and the fortnight extension is still hopelessly insufficient and neither does it respond to the questions raised in the Teagasc report. We don't need an extension; we need a suspension that will allow us to time and space to consider the conflicting science and arrive at the correct conclusions for a policy that will have such enormous consequences.

The extended derogation deadline of April 14 also needs to be pushed out substantially because some farmers may have to apply for derogation for the first time due to these same new banding rules and they will need a degree of time and study to see if this is an option for them. Why will the department not press pause to give this incredibly serious and practically irreversible policy the real study so obviously required and so disgracefully omitted? Something has changed: why has the department now decided to unilaterally set payment dates for 2023 that are worse than previous years? The new payment dates as advised by the letters just being received now by farmers are almost a month later in the case of ANC and up to a fortnight later for the Pillar 1 payments.

The department must know that these payments are nearly always used to pay down the bills that are timed to coincide with their lodgement. It's yet more evidence of the disrespectful attitude now adopted at disappointingly high levels. We're seeing this all the time now: where it suits the department, we see timelines and payment dates pushed out without so much as a word of explanation – much less apology. On the other hand, and at the same time, we see crazily short timeframes being reluctantly given to farmers to make decisions and submissions that are massively important. The only constant in this official 'push-pull' timeline policy is that is always seems designed to disadvantage farmers. Where farmers are due something, it's pushed out and out until it's nearly useless. But where the department wants something from the farmers – like the banding information – it's all 'pulled in' to unworkably tight deadlines.

NEW QUAD BIKE REGULATIONS

CIARAN ROCHE, FBD RISK MANAGER, HIGHLIGHTS THE NEW QUAD BIKE REGULATIONS COMING INTO EFFECT IN NOVEMBER 2023

In recent years, the number of fatal and serious work-related accidents involving quad bikes, in particular in agriculture and forestry, has given rise to concern. As a result, new regulations aimed at reducing the number of accidents involving quad bikes are being implemented. New legal requirements regarding quad bike operation under the Safety, Health and Welfare at Work (General Application) Regulations are due to come into effect on November 20, 2023. This means that quads and all-terrain vehicles (ATVs) are a key safety focus this year.

WHAT DOES THIS MEAN FOR FARMERS AND CONTRACTORS?

These regulations require that all quad bike operators in all workplaces must have successfully completed a quad bike training course, provided by a registered training provider, to a QQI Standard or equivalent. Additionally, all operators must wear appropriate head protection while operating a quad or ATV. The lead-in time to the new regulations was designed to allow sufficient time for training bodies to build capacity and for the operators of quad bikes to do this professional training. Quad bikes are designed to cope with a wide variety of terrain types and so are a fantastic aid for farm work. However, if operated unsafely they quickly create a risk of death or severe injury. The most important safety issues with quads are training, experience, wearing personal protective equipment, maintenance and a good knowledge of the terrain. The minimum age for farmwork-type quad bikes is at least 16 years of age and this is usually clearly stated on the quad.

CAUSES OF DEATH/INJURY

The main causes of deaths or serious injury from quad bikes are from:

- Being thrown off during vehicle overturns or after loss of control;
- Collisions with structures, trees, poles, other vehicles, etc;
- Being trapped/asphyxiated/drowned under an overturned machine; and
- Pedestrians being struck or run over by a quad bike.

CAUSES OF ACCIDENTS

Causes of accidents are usually one, or more, of the following:

- Lack of formal training or experience;
- Poor physical mobility;
- Excessive speed, especially turning at excessive speed;
- Carrying a passenger or an unbalanced load;
- Tipping on a bank, ditch, rock, rut or bump;
- A steep slope combined with other factors, e.g. ground or load conditions;
- Towing excessive loads with un-braked equipment; and
- Poor quad maintenance.

GET TRAINING

All quad bike operators must be trained in safe operating skills and information about how to operate a quad bike safely. The training must include the use of any towed equipment or attachments if applicable.

WEAR THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE)

Operators must always wear an approved helmet. A helmet can significantly reduce the number and severity of head injuries. Refer to the quad manufacturer's' recommendation. A helmet should fit comfortably and securely. Wearing a helmet with a face shield or goggles protects the eyes and will also aid vision. Additional PPE such as gloves and safety footwear should also be worn.

NO PASSENGERS

Never carry a passenger on a quad bike. The long seat is for active riding, for operators shifting their body weight backwards and forwards for different slope conditions, and is not for carrying passengers.

TRAILED EQUIPMENT AND LOADS

Overloading a quad can lead to an imbalance in weight distribution which can negatively affect braking. Ensure all riders know the recommended towing capacity and drawbar loading limit. Always operate within these requirements. Remember that the ability to control the quad using body movements will be considerably reduced when carrying a load or towing a trailer.

WHEN SELECTING TRAILED EQUIPMENT LOOK FOR:

- Over run brakes;
- Swivel hitch drawbar;
- Bead lock rims on wheels;
- A low centre of gravity and a wide wheel track;
- A long drawbar; and
- Attachment points for securing a load.

QUAD MAINTENANCE

Quad bike maintenance and checks are essential to ensure the safe operation of a quad. Tyre pressures should be checked regularly and servicing should be undertaken in accordance with manufacturers' guidelines. A poorly maintained quad bike can lead to accidents.

ALWAYS THINK SAFETY FIRST

IT IS SAID THAT THE FAMILY THAT PLAYS TOGETHER STAYS TOGETHER. BUT WHAT OF THE FAMILY THAT WORKS TOGETHER? BERNIE COMMINS CHATTED TO SHARON O'BRIEN, A MEMBER OF THE FAMILY BEHIND WELL-KNOWN CORK COMPANY, EGMONT AGRI, ABOUT BECOMING AN INTEGRAL PART OF THE TEAM THERE, AND THE WAYS SHE IS APPLYING ALL THE EXPERIENCE SHE GAINED FROM HER TIME WORKING AT ONE OF THE FOREMOST MACHINERY COMPANIES IN THE WORLD

BIG AMBITIONS FROM NEW HOLLAND TO PASTURES OLD

The nature of family business means that knocking off work can often be a challenge, with the conversation of the day ticking over into dinnertime, all the time. "You are always working," says Sharon. "At the dinner table, the conversation is always about work; whenever we go anywhere, we're always talking about work; it's work non-stop," she says, laughing. Growing up, Timmy [her father and Egmont Agri founder] was 'constantly out working, driving machinery, building up the business to what it is today'. Smiling, she adds: "So, we were brought up to be hard-working, we don't know any different."

The company has its roots in agricultural contracting, established in 1986 by Timmy – a founding member of the Association of Farm & Forestry Contractors of Ireland (FCI) – with all manners of agri-contracting work as its core activity. But from it has sprouted a very successful machinery importation and distribution business. This unique setup gives Egmont Agri a certain perspective that other machinery companies may not have, Sharon agrees.

> Egmont Agri is a well-oiled machine comprised of some very important cogs: Timmy, 'who does everything' says Sharon; his wife, Nora, who looks after the accounts; son, Thomas, who manages the day-to-day running of the agri-contracting business; other son, David, who is dairy farming, primarily; and Sharon, who has added another feather to the Egmont cap since she joined the company. Apart from the family unit, the company employs around 10 people, as well as seasonal staff throughout the year.
> And for good measure, the family manages 600 acres of tillage, too.

"We never thought we would end up in the machinery-selling business, we were always contracting from the get-go," says Sharon. "But, I suppose it is unique and they do work very well together because we use all the machinery that we sell, so we know that it is good quality and stands the test, and does the job that is there to do."

The family business may seem like an obvious destination for Sharon, but she made some pitstops along the way, first at Harper Adams University, and then on to work at one of the biggest machinery companies in the world. Completing an agri-business degree at Harper Adams was a natural progression after school, she says. Not being mechanically minded, her strength lies in the business side of agriculture, machinery sales and contracting, and how they co-exist. While

college enhanced and put an official stamp on the valuable experience that she had already gained from the family business, it also opened a door to a dream job.

"I did a four-year course in Harper Adams and during that, I did a one-year placement with New Holland as a brand communications intern for 12 months in a New Holland marketing department doing everything from planning training days for dealers, helping with shows and events, and that kind of thing.

"When I finished my degree in Harper, I actually went back to New Holland for two more years as a demonstration intern going around the UK with a brand-new CX combine, and we travelled all around to different farmers demonstrating that [machine]. Then, I did a second year after that as a brand and events coordinator, I was organising all the shows and events. This was during Covid-19, so there weren't as many events happening, so we were doing a lot more internal work such as creating product videos, and helping the marketing team that way."

In 2014, Egmont Agri became the sole Irish importers and distributors for SaMASZ farm machinery. This is a Polish company that manufactures mowers, rakes and tedders and various other farm and municipal machinery. In 2017, Egmont Agri became the Irish importers and distributors of Metal-Fach, another leading Polish manufacturer of agricultural machinery.

Despite the challenge of Covid-19, Sharon says she really enjoyed her time at New Holland where she learned a great deal, particularly on the machinery-marketing side, which she was able to apply to the family business when she returned home. It really was the dream job.

"New Holland is such a big company to someone like me. We always had their tractors, so to get a chance to have a job with them was the best thing ever," she says.

When Sharon decided to return home, Egmont Agri had just opened a machinery-parts store, which needed a lot of developing. But what it really needed was Sharon!

"I decided to come home and take that under my wing," she says. "We opened it just before Covid, in March 2020. We were selling a lot of

Little and large - the machinery toys have been hugely popular.

SaMASZ mowers, so we needed parts to back up the mowers if there was a breakdown.

"Since then, I developed it by adding more brands to the shop, and having a variety of products in the store. Apart from machinery parts, we now have workwear, lights, we have loads of machinery toys also. I still have to develop it further but it's come a long way in the two years since I've come home."

A STROKE OF GENIUS

The machinery toys have been a stroke of marketing genius. I mean, what child (big or small) doesn't want their own toy tractor, mower, and trailer?

"After I moved home, I was obviously trying to get more and more ideas for the shop. We work with a company in Tyrone called Killbran Toy Trailers, that develops little bale trailers, and they make little mowers, so we branded them with SaMASZ colours. So, we have little SaMASZ mowers for the children, as well as the adults. They make a little rakes as well so we have a SaMASZ rake available for kids too."

The Polish agricultural machinery company has been well-impressed with this idea, says Sharon. And Timmy? "He never says no to an idea," she laughs. It is this open attitude that led to Egmont Agri's involvement with Polish machinery manufacturers, in a move that has worked well for them.

"We first imported the SaMASZ machines in 2014. My dad kept seeing them at Agritechnica, which he goes to with two of his friends every two years. Eventually, he decided to bring in a set of mowers and we decided to test them out with one of the hardest drivers we have in the yard, and they withstood that test, and we were very pleased with it. So, in 2015 we sold our first set of triples and from then we have been selling a lot, we have over 70 sets of triples out there now."

The chance taken on SaMASZ paid off recently with Egmont Agri winning a number of awards in 2022 at the AGRO Show in Bednary in Poland. There, SaMASZ awarded the company for: being the leader of marketing activities; having the third-highest sales of large forage machinery for seasons 2020/2021 and 2021/2022; and having the third-highest sales increase for seasons 2020/2021 and 2021/2020.

The marketing accolade was a personal highlight for Sharon: "I was very proud of this because we hadn't done very much marketing until I came back home, so it was good to see that we are recognised as doing a lot for them."

COMING DOWN THE TRACK

So, what is coming next from Egmont Agri?

"SaMASZ is bringing out a merger this year, which is called the Falca, that we are hoping to try out in the summer. The merger is new to SaMASZ and new to us, so it'll be interesting to see how that works out. Hopefully we will have that at The Ploughing this year.

"The Metal Fach machinery, muck spreaders, disc harrows, buckets, and grabs have been going very well for us too," she adds. The build quality and reliability are some of the things that attracted Timmy to the Polish machinery that it stocks and uses in the contracting fleet, too.

"We also have Agrex fertiliser spreaders from Italy, and we have Agro-Masz grass feeders, and we also sell Conor slurry tankers. And, most recently, we have been appointed the main agent for Lipa, which is a range of mulchers for diggers."

At just 26, Sharon is young in her years, but has already amassed a lifetime's experience in the farm-machinery world, in what is the epitome of a family business.

CHOICES WIDEN FOR FARMERS

While most Irish farmers are, traditionally, food producers, there have always been individuals and groups who engaged in alternative land uses. Forestry is one of the more obvious. Very few who planted trees at scale on their farms have regretted the decision. Forestry has delivered returns over extended periods far in excess of what much of this marginal land could provide from more traditional enterprises. Currently, there are several novel land-use options that would seem to offer viable long-term returns. For those in the right locations, wind turbines on their farms are financially rewarding. Likewise, land-based solar panels can be a viable option. Collaboration between several neighbouring farmers, as we have seen examples of recently, can deliver the necessary scale where individual farms cannot. For those farmers who wish to continue in food-related enterprises but want to take a path that differentiates their produce, organic production offers that choice.

As a niche food-production system, organics should deliver premium pricing. That is not always the case, though given the funding available to support organic farming, the presence or absence of premium returns is almost incidental. Some specialised enterprises, including organic-milk production, would seem to offer premium pricing security. As organic production becomes more mainstream across the EU, it is probable that there will be an increasing erosion of premium pricing with more reliance on external financial supports. Others ploughing their personal furrows include free-range egg and pork producers, venison producers – though the pioneering breeders were the big winners there – as well as those who add value to their produce through processing their raw food materials.

> **THE MASS CONSTRUCTION OF SOLAR PANELS ON FARM BUILDINGS WILL TRANSFORM THE FARMYARD LANDSCAPE IN THE COMING YEARS**

What does the future hold? Carbon credits are in their infancy in terms of land being used as a storage facility, with landowners paid for the storage capacity of soils, trees and hedgerows. Farming exclusively for biodiversity may well become a financially positive activity. Combinations of traditional food production integrated with more novel activities also offers potential income streams. Sheep or goat farming in tandem with solar energy production is already a viable option. The mass construction of solar panels on farm buildings will transform the farmyard landscape in the coming years as the main barriers to such developments are being dismantled. Biofuel production, in its broadest sense, is set to transform large tracts of Irish land from food to fuel and energy production. With the construction of hundreds of bio-digester units across the country, the demand for feedstocks, grass, maize, fodder beet and farmyard manures, for these gas production plants will inevitably result in less land being used for food production. There is an acknowledged requirement for thousands of hectares of grass to be dedicated to supplying the raw material required to fuel bio-digesters. If the figures add up, then farmers will transfer their land use to enterprises that offer guaranteed returns in excess of what are available from current activities. Even with significant financial supports, much of our drystock production is marginally profitable, at best. The current higher prices for cattle disguise the long-term low average returns from cattle production. That fact is not set to change in the foreseeable future.

Whatever options farmers take, there are lessons to be learned from the past. Inflation has returned. All new payments for environmental and other services or goods supplied need an inflation-linked pricing mechanism. The Common Agricultural Policy (CAP) model shows how the absence of an inflation index has eroded its value to farmers over time.

Teagasc
Agriculture and Food Development Authority

Organic Farm Walks
Spring 2023

Teagasc invite all farmers and members of the public to see organic farming in practice and to meet and speak with the producers and sector's experts. Topics for discussion will include animal housing, making quality silage, managing grassland and weed control.

Date	Location	Time
Tuesday, 4 April	Thomas Reidy, Tralee, Co Kerry V92 RC8V *Sucklers, Sheep & Red Clover*	11am
Wednesday, 5 April	James Beirne, Boyle, Co Roscommon F52 X489 *Suckler to Stores*	2pm
Friday, 6 April	Richard Milligan, Robertstown, Co Kildare W91 E4F8 *Suckler to Beef & Tillage*	11am
Tuesday, 11 April	James Gilmartin, Manorhamilton, Co Leitrim F91 Y2T4 *Suckler to Store & Sheep*	2pm
Wednesday, 12 April	Peter Geraghty, Moylough, Co Galway H53 NY36 *Sucklers*	2pm
Thursday, 13 April	Pierce Harte, Rathdowney, Co. Laois R32 AT29 *Weanling to Beef, Sheep & Red Clover*	11am

Register to attend at: **www.teagasc.ie/organicwalks**
or scan the QR code

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1. Philippe, P., Alzieu, J.P., Taylor, M.A. and Dorchies, P., 2014. Comparative efficacy of diclazuril (Vecoxan®) and toltrazuril (Baycox bovis®) against natural infections of Eimeria bovis and Eimeria zuernii in French calves. *Veterinary parasitology*, 206(3-4), pp.129-137.
2. Agneessens J, Goossens L, Louineau J, Daugschies A and Veys P (2006). Build-up of immunity after a diclazuril (Vecoxan) treatment in calves, Poster at World Buiatrics Congress, Nice.
3. Van Leemput L. & Louineau., (2007). Diclazuril for coccidiosis in ruminants: safe for the environment? Janseen Animal Health, Beerese, Belgium.

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