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DAMM BREWERY

Expansion, investment and a love of lager in Bedfordshire

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NEW LEADER NEW START?

So there we have it.
The UK is in search of a new Prime Minister. With Keir Starmer announcing his departure at the end of June, the outgoing Labour leader follows Conservative Party figures Boris Johnson, Liz Truss and Rishi Sunak in holding and vacating the position during the last five years.

If the newly-appointed Labour MP for Makerfield Andy Burnham does indeed take up the top role in government, as is widely expected, he already has a growing to-do list awaiting him in office.

Hospitality will be hoping it gets more attention, and meaningful action, than it did under Starmer and his chancellor Rachel Reeves. And early interviews with Burnham have indicated there is "*some room*" for movement on tax suggesting business rates on warehouses could be increased to help fund tax cuts for pubs.

At the time of writing we are still in the midst of the 2026 World Cup. While the tournament is having a positive impact on pubs and bars here in the UK, the British Beer and Pub Association (BBPA) continues to actively lobby the UK Government to cut beer duty, noting that British beer taxes are roughly three times higher than the European average.

It also observed that of England's recent opponents elsewhere in the globe, Panama pay 13p in beer duty on a pint compared to 54p in England, while in Ghana that figure was 44p.
Emma McClarkin, the CEO of the BBPA said the impact of the tournament was "hugely welcome" for venues battling high taxes and costs but that the government can further support pubs and brewers by cutting beer duty to be in-line with the European average.

Our news analysis this issue features insight from figures across the beer and brewing industry. They are calling for "meaningful changes" such as fairer taxation and improved market access for small producers. Some are more optimistic than others on the road ahead. While one figure, not wanting to be quoted, said that the issue was "beyond Starmer".

Elsewhere in hospitality, businesses, teams and organisations are urged to sign a recent petition calling for the government to cut hospitality VAT to 10%, in line with Europe. Chef Tom Kerridge is spearheading #VATsTheProblem, a new sector-wide campaign that is uniting hospitality businesses and teams, high-profile chefs, and sector trade bodies and organisations.

The campaign's single ask is for the Government to cut hospitality VAT to 10%, in line with Europe, and it is urging the entire sector to back its call by signing a new petition. It is already supported by major hospitality groups, including UKHospitality, the British Beer and Pub Association, the British Institute of Innkeeping and CODE Hospitality. While drinks businesses like importer and distributor James Clay & Sons are also publicly supporting the campaign.

"Now is the time for hospitality to galvanise behind this campaign," said Kerridge. "Be part of a movement that aims to get hospitality recognised and taxed in a much fairer way. I know that the Government is listening, but we do need to push hard."

Change is needed. But will we get it?

Tim Sheahan
Editor

LEADER

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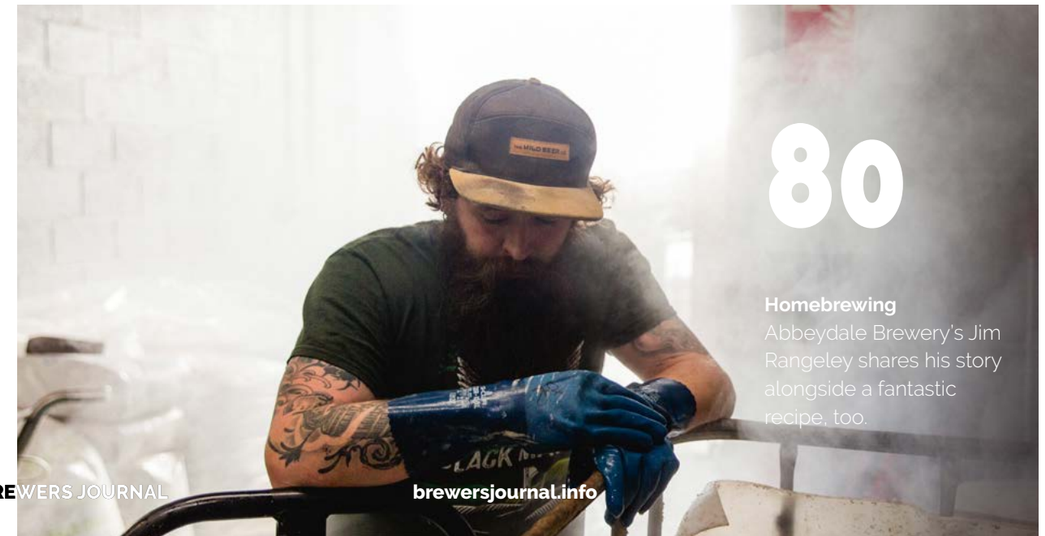

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NEW PRIME MINISTER: AN INDUSTRY REACTS

FIGURES FROM BEER, BREWING AND HOSPITALITY INDUSTRY HAVE CALLED ON KEIR STARMER'S SUCCESSOR TO IMPLEMENT "MEANINGFUL CHANGES" SUCH AS FAIRER TAXATION AND IMPROVED MARKET ACCESS FOR SMALL PRODUCERS.

In June Keir Starmer announced his resignation as prime minster of the United Kingdom and leader of the Labour party. In a statement, the outgoing prime minster said that "every decision I have taken has been about putting the country first" and that is why he was resigning as leader of the Labour Party.

Starmer took on the role in 2024. His chancellor Rachel Reeves has frequently been criticised for her approach and level of support provided to the UK hospitality sector. And at the start of June this year, hospitality businesses, teams and organisations were all urged to sign a new petition calling for Government to cut hospitality VAT to 10%, in line with Europe.

So with a new prime minister incoming, brewery and bar owners from across the UK have shared their hopes and expectations of what the new leader can do to help a sector that has often felt ignored by the current leader and his chancellor.

Commenting on his tenure, Elusive Brewing founder Andy Parker said that employers NICs and business rates rose, putting even more pressure on a sector that's already squeezed. "I'd like to see fairer taxation – addressing the huge disparity between the highly taxed brewing and hospitality sectors and large multinationals who often pay zero corporation tax," he says.

"One positive was that Starmer's government ordered a review of market access in our sector and I hope those findings are published soon.

"I hope the new Labour government moves ahead and makes positive changes such as increasing draft duty relief, improving market access for small producers and committing to review the not fit for purpose business rates system."

At the Society of Independent Brewers and Associates (SIBA) Barry Watts is the head of public affairs and policy, who says that Keir Starmer promised so much to so many yet didn't have a clear plan to deliver it".

Watts goes on to explain that Starmer pledged economic growth and prosperity "but sadly has presided over the toughest trading period for pubs and independent breweries since the pandemic six years ago".

> **I would like whoever succeeds him to be a better listener and to engage with the business community since this has been missing," William Lees-Jones, JW Lees**

He adds: "We've seen two pubs a day lost so far this year, triple digit brewery closes and an ever-rising tax burden. Despite a welcome increase in Draught Relief – which targets duty on beer sold in pubs – in Starmer's first Budget, the price of a pint is becoming increasing unaffordable for many people."

The market access review for small breweries announced in Autumn 2024, Watts says, has remained in the weeds of Government bureaucracy – symbolic of so many other areas of government policy. He says: "People's patience has been squeezed under the weight of Government reviews, consultations, white papers, and strategies, delaying the delivery of action that they so demand.

"There are once again great expectations that whoever becomes Prime Minister will deliver for the sector. Pubs and breweries have vocally called for VAT cuts, Business Rates reform, draught relief increases and real market access improvements.

"However, the next incumbent will face the same structural issues as their predecessors – a huge deficit, lacklustre economic growth and growing international uncertainty. It is difficult to see how any of these wishes, however valid, can be fulfilled."

Tom Bott is the co-founder of London-based Signature Brew. He says the recent tenure was not without its positives, but that Starmer's successor needs to recognise the value of UK hospitality He says: "We've now had seven Prime Ministers since 2016. We had seven in the 42 years before that. For businesses

like ours, that level of political churn makes long-term planning difficult. More than anything, hospitality needs stability, continuity and ministers who understand our sector.

"Whoever succeeds Sir Keir Starmer should recognise that hospitality is one of the UK's great employers, taxpayers and community builders. We need support, but above all we need a level playing field. The tax burden on pubs, restaurants and breweries remains significantly higher than many of our European competitors, which holds back investment, jobs and growth.

"While hospitality businesses have had frustrations with both Sir Keir and Chancellor Reeves, it's also fair to acknowledge some positives. Economic growth has improved, net migration is down, and the public finances appear to be moving in a more sustainable direction. The challenge was often one of communication. Many business owners simply never felt they understood the government's vision or where hospitality fitted into it."

For Bott, if Andy Burnham does emerge as Sir Keir's successor, then his track record of engaging constructively with hospitality businesses is encouraging. "He understands the social, cultural and economic value our sector brings to communities, and we'd look forward to working with him, says Bott.

"As we get to know yet another Prime Minister and ministerial team, my hope is that they bring clarity, consistency and a genuine understanding that hospitality is not asking for special treatment. We're asking for the conditions to invest, employ and grow."

JW Lees is Manchester's oldest brewery. William Lees-Jones, its managing directos said Starmer's successor needs several key qualities. He explains: "I would like whoever succeeds him to be a better listener and to engage with the business community since this has been missing from the Starmer/Reeves combo.

"Hospitality has been kicked and kicked and there is so much that can be done to support including business rates review and VAT reductions and if that could happen then investment will go up and jobs will be created."

A TURNING POINT FOR HOSPITALITY?

Like JW Lees and Signature Brew, Theakston's own hospitality venues as well as brewing operations. Richard Bradbury, the company's managing director, said that whichever political leader or party is in power, what is critical is their "understanding of how business in general and the brewing and hospitality industry in particular, can help drive growth and be a force for good in their communities".

"Pubs are at the heart of their community, connecting people from different backgrounds and combatting loneliness. Their role has never been more important in this increasing polarised world," he says.

"We need a permanent resolution to fair business rates so small business owners can plan and invest. The hospitality industry is a major employer of young people and we need a taxation regime that encourages youth employment rather than disincentivises it."

From the brewing side, Bradbury says he would like to see trading relationships for export markets that are as free of tariff and red tape as possible and a regulatory regime that is consultative and light touch.

He adds: "We have very high levels of excise duty in comparison to almost all other countries. While the government's finances are strained, we are probably at the top of the Laffer curve and a reduction in excise duty would be both good for brewers and for tax revenue. "Within an overall reduction, a more creative approach to excise that supports beers that are unique to Britain's pubs such as cask ale, would be very welcome."

In Liverpool, Julie O'Grady is the co-owner of Neptune brewery. She says today's news his "hopefully a turning point for the Government to actually listen to what businesses are saying". She told us: "We need more support, not only VAT but also duty. The rate we pay is higher than many other countries. Reducing the rate to lower strength beer at 3.4% has only helped the macro breweries.

"This combined with NI increases and the smaller reduced discount given on business rates is crippling many. It's awful to see hard working breweries and bars close through no fault of their own. It can't go on. This is now an opportunity for them to make changes."

And Christian Townsley is the co-founder of Leeds' seminal North Bar and has nearly 40 years' experience in the hospitality industry., He says: "On one hand I really don't revel in Keir Starmer's resignation, it's sad and somewhat worrying to see the country in such political disarray.

"From a hospitality operators' point of view however, I feel the current government have done absolutely nothing materially to support the hospitality (and in turn the brewing) industry in the UK, and Starmer and Reeves are deaf to the scale of the problem."

The business owner adds that consensus in the hospitality industry is that a reduction of VAT from 20% to 10% would have a huge impact, and he would welcome this.

"From my understanding Andy Burnham has been a long supporter of a reduction in VAT for hospitality, if he were to succeed Starmer I'd hope that would be one policy that we'd see implemented sooner rather than later," adds Townsley.

"I've worked in hospitality and beer for 36 years and I've never known it be as hard for the industry as it is right now. I hope Starmer's successor makes meaningful changes quickly, for the good of both the independent hospitality and brewing industries."

NEW CEO TO TAKE REIGNS AT HEINEKEN

Heineken has appointed Rafael (Rafa) Oliveira as the company's new CEO.

Oliveira will join Heineken from JDE Peet's N.V., the world's largest pure-play coffee and tea company, where he has served as CEO since 2024. Commenting on his appointment, Oliveira said: "I am honoured and excited to join Heineken, one of the world's most iconic companies and brand portfolios.

"As a long-time admirer of Heineken heritage and global impact, I am thrilled to have the opportunity to lead this great company into its next chapter. Heineken's EverGreen 2030 strategy provides a powerful platform for the future, and I look forward to building on that momentum while bringing my own passion for performance, innovation and consumer focus.

"What excites me most is the opportunity to work alongside Heineken's talented people around the world, whose dedication and capabilities are the foundation of Heineken success, and I look forward to building on that legacy together.

"I am confident we will accelerate growth, drive productivity and future-fit Heineken, winning the hearts of consumers worldwide. I cannot wait to get started on 1 October 2026, and I will be fully committed to ensuring a seamless transition."

RESEALABLE CAN TECH MOVES CLOSER TO LAUNCH

A new technological innovation that enables can resealability is moving closer to a pilot-scale launch.

CanReseal is the culmination of a partnership with between Canovation, a packaging innovation company focused on sustainable metal container solutions, and Canpack, a manufacturer of aluminium beverage cans and packaging formats. CanReseal is described an innovative aluminum can end system that enables resealability while leveraging the scale, efficiency, and infrastructure established across decades of can manufacturing and filling operations.

It is designed to enhance consumer convenience and support the circular economy and builds on aluminium's inherent recyclability and value retention, offering a sustainable alternative to single-use plastic packaging without disrupting today's industry processes, the company said in a statement.

The collaboration between companies marks an important step in advancing Canovation's CanReseal technology from late-stage development toward broader commercial applications.

REBRANDED ACCREDITATION AIMS TO RAISE STANDARDS

Cask Marque is rebranding its all-beer accreditation, Beer Marque, as the Perfect Pint Promise following extensive consumer research and an industry It brings together cellar hygiene, staff training, clean glassware and serve standards.

Cask Marque has secured copyright and trademark protection for the Perfect Pint Promise logo, giving pubs and consumers a clear quality mark for draught beer and cider.

The Perfect Pint Promise is designed to give beer drinkers confidence that participating pubs are committed to consistent beer quality, trained service and a better customer experience.

The accreditation will focus on: a 5-star Beer & Cellar Hygiene Rating, modelled on the Food Standards Agency hygiene ratings; Bar staff trained in beer service and handling through the award-winning e-learning programme – Beer Professional or 'Beer Pro'; Pour and presentation and clean and branded or appropriate glassware.

Existing Beer Marque accounts will be rebranded under the Perfect Pint Promise and supplied with new point-of-sale material. Consumers will be encouraged to share feedback on beer quality and service through an established pub finder app, with invaluable feedback made available to pubs and brand owners.

ALFA LAVAL APPOINT NEW MD

Alfa Laval UK & Ireland has appointed Alessandro Bracco as its new managing director, as part of a targeted push for growth in a number of key strategic sectors, including brewing.

With a 20-year career spanning B2B sales, marketing and commercial strategy – including five years at Alfa Laval – Alessandro is poised to usher a new era of success for the world-leader in heat transfer, separation and fluid handling. His previous experience includes roles in finance, renewable energy and building materials.

"There has never been a more exciting time to take the helm at Alfa Laval", he said. "While challenges persist in the market, there are also opportunities – particularly in the brewing and distilling sectors.

"Despite being a Scandinavian company, Alfa Laval UK has been established in the UK & Ireland for well over 100 years. I'd like to think this has shaped my style of leadership, which is the product of both British and Swedish approaches to business – empowerment and trust, but above all pragmatism and efficiency!"

BREWERY TO SPEARHEAD LONDON MARKET REVIVAL

German Kraft Brewery has been appointed to operate the revival of the popular Model Market in Lewisham, London.

The development, which is scheduled to open later in the summer, is expected to be a street food destination that will also be a hub for traders, local creatives and the wider community.

As the site operator, German Kraft said it will bring its signature craft beer and social, community-led taproom atmosphere to the London space.

CREATE A FANBASE FOR YOUR BEER

IT IS BECOMING HARDER FOR BRANDS TO CONNECT WITH CONSUMERS. GEN Z WANTS AUTHENTICITY IN STORYTELLING, AESTHETICS, AND TO ENGAGE WITH A BRAND THAT IS ACTUALLY COOL. EVE WARREN FROM LOVE ARGUES WHY BRANDS NEED TO STOP SELLING BIG BEER, AND START BUILDING FANDOMS.

The UK is fortunate to have a diverse network of passionate, independent breweries. However, recent figures suggest that brewery closure rates rose sharply during 2025, with several notable names shutting shop, such as Magic Rock, Fourpure or Cronx Brewery.
A combination of growing tax burdens, market consolidation, limited access to retail channels, and conservative supermarket ranging poses a formidable challenge for brewers of all sizes.

For many, the logical response has been to take a more conservative approach. We're seeing a scaling back of experimental beer styles in favour of dependable core ranges like pale ales, lagers, and alcohol-free variants. Packaging and visual identities are also shifting to feel more familiar and retail-friendly, a stark contrast to the bold, heavily illustrated designs that defined the craft beer boom. For example, as Beavertown Brewery expanded into major retail, its once anarchic visual language evolved into a more structured and scalable system, a clear signal of how growth pressures reshape brand expression.

These tactics make sense as margins tighten and competition increases. But they don't address a wider, irreversible evolution in consumer behaviour. Studies increasingly show that younger audiences are moving away from beer, in favour of flavour, wellness and instagrammable experiences.

Beer now competes not just with other beers, but with spirits, RTDs and a new wave of lifestyle beverages. Younger audiences, in particular, choose drinks as social signals; what they hold in their hand has become an extension of their identity. This is where the real opportunity lies: building brand worlds that nurture genuine fandom. Core ranges deliver listings.

But brand worlds win loyalty. It can be hard looking beyond the product and a traditional marketing approach – and may at times feel count-intuitive. But those that get it right will grow visibility and thrive as the market consolidates further.

MORE THAN LIQUID IN A BOTTLE

The key is to nurture a shift in mindset – from being product-led to lifestyle-driven. While beer is culturally visible at sporting events and music festivals, it remains one of the least differentiated drinks categories. Most lagers, for example, taste, look and are priced similarly. Traditional product messages like 'refreshing' or 'quality' have lost their power, especially with Gen Z. Liquid credentials are no longer enough.

Brands must design for wider visibility, not just distinction on a crowded shelf. The crucial question is shifting from "Will someone reach for this in the supermarket?" to "Would someone post this bottle on Instagram?"

The key is to make the most of your distinctive assets or story. Guinness, for instance, has seen a surge in popularity among younger drinkers, largely helped by fashion-led collaborations and a renewed focus on its iconic design. With a rich visual archive to draw from, its cultural ventures feel authentic rather than forced – something that resonates strongly with Gen Z.
This depth of identity translates seamlessly into desirable merchandise and creative partnerships with brands like Pull&Bear and Lazy Oaf, transforming a historic stout into a modern cultural badge.

CHOOSING A CULTURAL MOMENT

Having a strong narrative also allows a brand to participate credibly in cultural moments. Stella Artois, for example, used its focus on 'the perfect serve' in an impactful partnership with the Wimbledon Championship. Leaning into streetwear's 'drop culture', it sold a limited-edition corduroy cap with each lager multipack.
The reaction was intense. Shoppers flocked to Co-op just to grab the hat. It was pure hype wrapped in a classic lager. Stella Artois didn't change its recipe. It changed the conversation around it – about Wimbledon, streetwear and exclusive summer happenings.

So, how can other beer brands, including smaller scale independents become more embedded in lifestyle and culture in this way? The first step is to act less

like advertisers and more like cultural participants. This means collaborating with fashion, music and art communities, not just sponsoring sports. It means showing up in unexpected spaces like galleries, pop-ups and creative studios.

Instead of chasing fleeting trends, however, the goal is to create a world people want to step into. Of course, authenticity is paramount. If you want to tap into a cultural moment, it must feel rooted in your brand's DNA rather than bolted on for relevance.

When BrewDog launched Mello, the drink's pastel, RTD-style aesthetic marked a noticeable shift from the brewer's established 'punk' positioning. The risk with such pivots is not innovation itself, but disconnection. Cultural extensions must feel additive rather than detached from the core brand narrative.

EXPLORE LOCAL CONNECTION

Ultimately, the challenge for breweries is to find their unique voice in a noisy market. This opportunity is not reserved for big global players like Stella or Guinness. Smaller breweries can, and should, adopt a lifestyle-driven approach as well. In fact, their local roots allow them to forge even deeper connections with communities and tap into cultural moments in an authentic, agile way.

This doesn't have to mean expensive fashion collaborations. It could mean a limited-run artist-designed can tied to a local exhibition, a quarterly merch drop with a neighbourhood skate brand, or a members-only tasting club that feels more like a record label subscription than a drinks promotion. The goal is consistency and cultural depth, not one-off stunts.

Northern Monk's Patrons Projects is a great example. In a series of limited editions to nurture collaboration, creativity and community between artists, athletes and creatives across the North, every aspect of the beer - from recipe to can – is designed to reflect the individual patron. They have ranged from a partnership with Thought Bubble, the UK's biggest comic art festival, to tie-ups with local artists and a series celebrating the North's best cocktail bars.

By showing up in unexpected spaces and making the brand part of everyday culture, independents can build the kind of fandom that turns consumers into advocates.

The accessibility and drinkability of lager, for example, offer a perfect platform to lean into an easy-going cultural space. Rather than just focusing on the liquid, brands need to think about how they fit into people's lives beyond the pub or the barbecue.

In a consolidating market, liquid alone will not secure your future. Community will. The breweries that survive the next decade won't just make good beer. They'll build worlds people want to belong to.

DO YOU STICK TO A BEER?

WHEN YOU'RE OUT FOR A BEER DO YOU PREFER TO MIX THINGS UP OR DO YOU FIND ONE YOU LIKE AND REMAIN WITH IT? JOHN KEELING, WHO HAS BEEN RECOVERING FROM A KNEE OPERATION, HAS HIS OWN VIEWS AND HE'S STICKING TO THEM.

Well since I spoke to you last, I have been into hospital for a new knee and I must admit the NHS was wonderful. I intially went to see my doctor on the 12th of January of this year and less than three months later, I was operated on at the very end of March.
I decided to tell them I was a brewer so, as you can expect they marked me as top priority. I forgot to tell them I was retired.
The hospital told me I should not drink for a week before the operation and for two weeks after. So, imagine how pleased I was to get to the Bell and Crown in West London to meet Tim your esteemed editor for a pint of London Pride.
The Fuller's pub had also recently reopened after what was an expensive refurburbishment project and I have to say it was looking splendid.
For those who don't know the pub, it is located right on the River Thames in an area called Strand on the Green. You can easily get there from Kew Gardens on the London Overground and London Underground or from Kew Bridge on the rail. We spent a nice couple of hours enjoying the beer.

During our time there I stayed on London Pride throughout the session. But this made me think. Whenever I find the beer that is to my liking, I find myself sticking on that beer whilst I am in that particular pub. I do not change or have any real desire to try something different. To be honest, this is the approach that I have maintained all of my drinking life.
Thinking back, then I first started drinking in the 1970's I fell in love with cask beer.

Well, to be precise, I actually fell in love with cask bitter. While I would sometimes try the various cask milds that were on offer across town, I always found myself returning to the bitter. And you know what? That's what all my friends did too. I have also noticed other people of my age that also have this same habit. So, the question I am asking is whether it is an age thing or if it is a generational thing. Answers on a postcard, please...

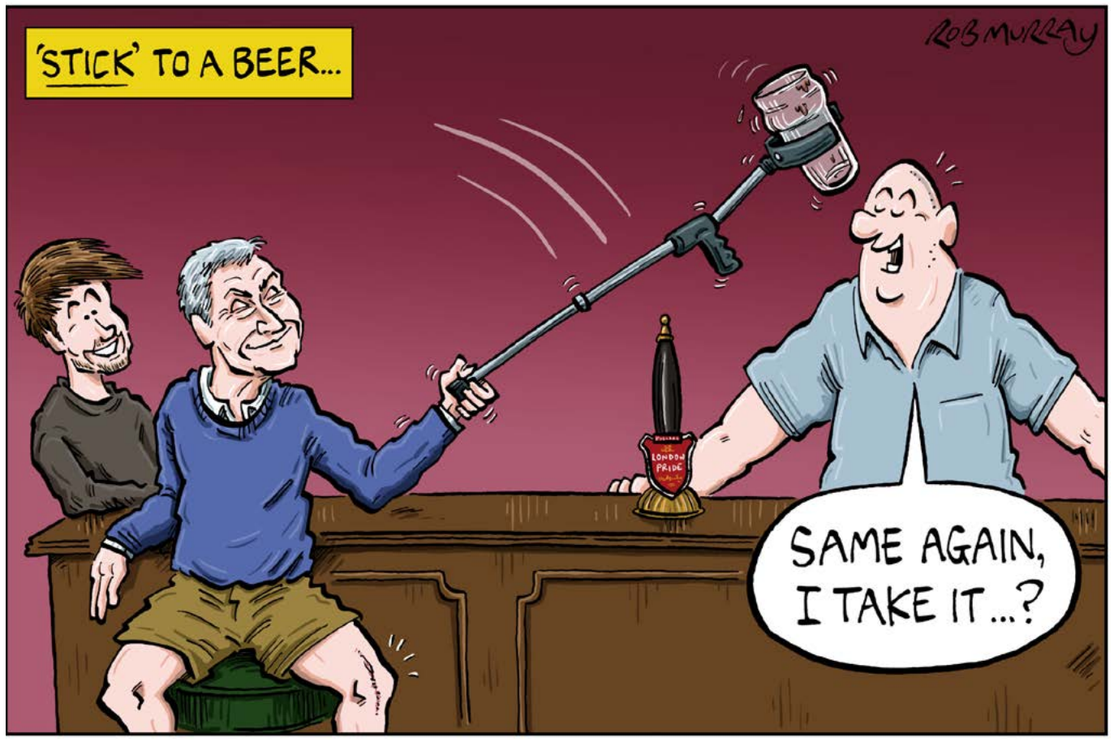
Either way, I know that I am happy with my drinking habits, I also hope to be walking to pubs like The Bell & Crown on a moreregular basis soon. Also just to quote Mark E Smith singing Blindness (Peel version) "*I gotta metal leg*". Of course, I say Peel version because that is important to Fall fans. and if you don't understand that, then you must be so young that you have a different pint every time you go to the bar.

On a different, more serious note, I want to mention how sad I was to hear about the passing of Alex Lawes. Alex was the co-founder of Whiplash Brewery. a business he started in Dublin with his co-founder Alan Wolfe.

While I only had the chance to meet him once, he was kind enough to give my wife Symone and I a tour of his brewery. What really struck me during our visit to the facility in Ballyfermot, a suburb of Dublin, was how impressed I was with both him and his vision for making beer.

Alex clearly knew what he was doing. That much was immediately obvious. However he was also very receptive to any suggestions that I gave him.
I thought that Alex Lawes had the makings of a very top brewer and I also know that he will be missed by us and the wider community.

"I have also noticed other people of my age also have this same habit So, the question I am asking is whether it is an age thing or if it is a generational thing. Answers on a postcard, please...."



REMEMBERING ALEX LAWES

IN MARCH OF THIS YEAR THE GLOBAL BREWING COMMUNITY LOST ONE OF ITS MOST-LOVED FIGURES. ALEX LAWES, THE REVERED AND RESPECTED CO-FOUNDER OF DUBLIN'S WHIPLASH BREWERY AND FIDELITY BAR & STUDIO, HAS LEFT AN INDELIBLE MARK ON THE BEER COMMUNITY AND COUNTLESS OTHERS OUTSIDE IT, TOO. HERE HIS FRIEND AND CO-FOUNDER ALAN WOLFE, ALONGSIDE OTHERS FROM THE WORLD OF BREWING AND HOSPITALITY SHARE THEIR MEMORIES OF A FRIEND DEARLY MISSED.

Standards. Alex was always pushing for us to be better at everything we did, in everything we did. He was never shy calling out mediocracy or when we were settling or accepting less than great. This trait is what pushed us to where we are today but with that comes the frustration or pressure of delivering at that level constantly. Annoyingly he had an extraordinary ability to see what the rest of us couldn't. Whether that was kerning on our labels, top notes on the beers or ideas we had for events. He was always focused on us being better. Even if on more than one occasion he drove me mad...

"That same frustration I had is now the yard stick I use when chatting about new ideas and talking about what we want to do, with Whiplash and Fidelity that's now the benchmark I use. If I were to suggest this to Alex, would he turn around with those eyes and tell me "nah man that won't work" or would he get excited and grow the concept/idea into something really special – he sits in my mind constantly."

Alan Wolfe is the co-founder Whiplash with Alex Lawes. The duo, alumni of Guinness, would separately go on to work for Rye River Brewing Company in Kildare where they'd meet. A bond was formed and Whiplash came to be in 2016.

Starting life as a contract brewing outfit, early beers such as Scaldy Porter and Double IPA Surrender to the Void were a hit with consumers and demand for more frequent releases would grow. By 2017, it was time for this new outfit to show it meant business.

And over the course of some six months Wolfe and then Lawes would depart Rye River to fully focus on their new business. But what could they call it? "Whiplash" Lawes would tell his business partner. "Sounds deadly, why Whiplash?" Alan asked. "Because of the pain in the neck we both have working in this place," Lawes replied.

"Whiplash it is," Wolfe muttered.

In 2019 the team would move into their impressive custom-built brewery in Ballyfermot, a suburb of Dublin. In the years since, the brewery grew to a global standing. The incredibly high-quality of their beers, an infectious presence at festivals across the world coupled with collaborations with the great and good that the industry has to offer all contributed to that.

An in 2022, the duo teamed up with friends Dave Parle and Stephen Manning, founders of Dublin's excellent bar, The Big Romance, to open up a venue of their own – Fidelity. Known as an audiophile bar, venue and restaurant, it's a spot where the meticulous nature of the brewery's beer is matched by environment it's served in. Between Whiplash and Fidelity, Alan and Alex's creative output has done what any of us can hope to achieve in life and that's making others happy while playing a small part in improving their day. For that, we're forever grateful.

Because in March of this year, the industry suffered a monumental loss as Alex Lawes passed away suddenly. He was 38. Here Alan shares some of his memories of a dear friend, business founder and partner in crime.

"The outpouring of support we had from everyone is something I will never forget. I had mates from breweries across Europe offering to send me brewers and offering to send me marketing resource. A friend from Switzerland is an scientist. He used to be in beer and told me that he has a month's vacation to use and that he would come to the brewery to work for nothing in return. Thankfully we got back on our feet without taking up these generous offers but considering how swamped everyone is, I could not have felt more arms around me if I tried.

But that's the thing, Alex had an impact on people wherever he went. We had

ALEX LAWES

Alex did more in his short 38 years than most people would hope to do in their lifetime," Alan Wolfe, Whiplash

so many messages from our friends from across the world. No individual you meet once should be able to have that impact on you, but he was able to. You meet Alex and that was it, you'd come way thinking 'wow, he's one of the best people ever' because he's hilarious and inspiring. He was a terrifically-intelligent guy, like stupidly intelligent.

Alex was obviously a brewing genius. I think everyone who interacted with him kind of knew that. But I think the biggest strength that the guy had, and still has even though he's left us, is his phenomenal ability to bring people together from all different walks of life. He could connect people who shouldn't be together, but he did so in such a normal, organic way. I'm now friends with a baker from the Midlands who comes to visit us. Why? Because of Alex.

Through Whiplash we were able to help grow a community and that's something we continued with Fidelity. Fidelity was the brainchild of myself and Alex for probably the last 10 years. There's a spot on Queen St in the Smithfield part of Dublin. Around there used to be a place called Dice Bar. For the longest time we said to each other that we wanted that bar.

We had amazing times there way back when because there was just a weird mix from corporates to poets. Nobody really gave a shit who was there and everyone drank outside and had a great time. Before me knew each other there would have been many times where we were both there and not realised the other was there too.

So we always wanted that pub, and then COVID made that pub reachable. We tried to buy it and couldn't as the landlord who owns all the land decided to. But as second bidders, coupled with a group of people that wanted us to buy it, meant we were eventually able to get it leased to us. We teamed up with our best pals Dave and Steve from The Big Romance and with their background in music, we've created a community space that means you're only ever one degree of separation from anyone there.
That bar is a testament to Alex's energy, which he had in spades. He and I always had the reputation of being the crazy ones that would walk into a room and change the space and energy. And with Whiplash we were those same crazy people bobbing around Europe. Earlier this year I didn't have any energy to continue with new projects. But I'm getting the excitement back for more projects that create spaces like that for people to enjoy themselves, meet others and make new friends, all the stuff that myself and Alex talked about. We had plans for other spaces and other concepts all of which I still want to do as they excited us.

There's times I'm at the brewery on my own at the weekend doing checks with nobody else around and struggle with him not being with us anymore. But then there's time with the full team around. I look at all we've collectively built here and realise how proud I am and at that point I'm excited and driven once again. We've just released our non-alcoholic Pils, which is great, and we are also pressing on with our vintage program of decoction porters, brown ales and stouts. Beers that pre-date Guinness.

There were once something like 88 breweries in Dublin and they were all decoction. As a decoction-ready outfit we are excited about our plans and with the help of some great brewers and great friends it's a path that feels right to continue on.

Through these type of projects that Alex's spirit will live on in. In Fidelity there will also be a plaque at a table 'Reserved for Alex Lawes' for his favourite seats in the space. We are also looking into initiatives in the arts that support creative spaces for young artists. That's the way we think it's best to commemorate his legacy. We're just figuring it out at the moment.

And finally, people probably already know how intelligent Alex was. He had an emotional maturity and curiosity that meant he was constantly learning and as I tell him "off down a rabbit hole". Whether that was reading old Irish literature, or books on photography or videography coupled with his passion for brewing and baking. He was a phenomenal cook, and I mean a phenomenal cook. He had some type of -tism that meant once he bought into something new he would be fully-invested in it. By that I mean there would be six months of learning that would allow him to stand next to a professional in the field and know every nuance in their field. It was remarkable to watch because when I get home from work I don't have the energy to be an adult let alone study a new field....

Alex did more in his short 38 years than most people would hope to do in their lifetime. He had qualities in absolute abundance. He was absurdly intelligent but let me tell you, he was mad frustrating as well. We treated each other like brothers.

He drove me mad and I've no doubt I drove him mad too but that's what made all of this work. He'd be the first one to slag you off, too. In January we had over 60 days of constant rain and unfortunately my house flooded, when I told him he asked me how I was first but then immediately followed with "you know you can buy a canoe in the middle isle of Lidl". He enjoyed nothing more than winding me up and I loved him for that. He was an arsehole, but he was my arsehole...."

AN INDUSTRY REMEMBERS

"Meeting Alex and Alan in 2017 was, simply, a life changing experience. I'm sure everyone that met those two together will say the same... From launching themselves into the River Thames and throwing ragers at the Mayor's mansion in Dublin, to hosting hot tub parties in the brewery, you cannot word or encapsulate the brilliance of either of them. The two of them continue to, and will always, be the most incredible family. People you know that you can call on forever and more, and for that, I'm eternally grateful."
Katie Arabella, Pimentae

"We first brewed with Alex back in 2018 in the run up to that year's Hop City. Aside from his legendary wit and good humour, it was his remarkable brewing mind that stuck with me. We'd work on many more beers in the coming years and getting to spend so many hours hearing him talk on every aspect of brewing, on his audacious plans for their first brewhouse, on how many different ideas he had for breaking his mash filter and on just how little grain actually goes into those macro Irish stouts, was a true pleasure. It quickly became apparent that this fierce intellect wasn't limited to brewing, if there was a subject he wasn't versed on and ready to debate over into the early hours, I never discovered it."
Brian Dickson, Northern Monk

"I had never met a more detailed technical brewing mind than Alex, he schooled me on so many things. His enthusiasm for beer, brewing, and having a proper good time was unrivalled, and forever contagious."
Reece Hugill, Donzoko Brewing

"I was devastated to learn of Alex's passing. The loss of such a character and talented brewer is a tough blow that has sent ripples across the brewing industry.

I remember cracking a can of Whiplash on the day Bates and I moved from London to Norfolk to build our bricks-and-mortar brewery. Our lives were packed into boxes and we were embarking on this epic journey. Full of nerves and excitement, I looked at that can and thought about how much I admired the conviction Alex and the Whiplash team had in creating beer with character and flair that was, well, uncompromisingly them. The artwork was captivating, and the beer was exceptional.

Like us, they started Whiplash as cuckoo brewers and, in those early years, seeing others carve a path in the same way we intended to made the impossible feel possible. That was really important. It helped me hold the courage of my convictions building a brewery from the ground up. When the invite came for Duration to pour at Whiplash's first beer festival in Dublin, just months after we opened, it felt like we'd been welcomed into the brewing world. We barely knew them, yet the warmth of the Irish welcome we received at Fidelity was second to none.

We made a beer together called "The Road Don't Go Forever" and now, of course, that feels so poignantly apt it really gets me. It was a big, bold Double IPA, a style that perfectly captured the exuberant natures of both Alex and Alan. The artwork shows two people

in a Cadillac driving off into the sunset, Thelma and Louise-style, heading into another dimension.
The outpouring of love from the brewing community speaks volumes about the respect, generosity and warmth Alex inspired. It has been moving to see so many people sharing stories and celebrating the connections he built.

We'd love to rebrew our collaboration in Alex's honour some time, but for now our thoughts are with his family, friends, colleagues and his dog, Brettsie.Fly well, Alex. Rest easy, and catch you on the flip side for a bourbon or two.
Miranda Hudson, Duration Brewing

I met Alex for the first in university back in Dublin in 2008. The second you'd meet Alex you fell in love with him. His infectious laugh and his intense intelligence, which was hidden by his humour and wit. He was the type of man you'd always want by your side be it with a pint in hand, at a lecture or just talking nonsense in the cafeteria.

After getting to know him more in our early years, it became apparent that beer and homebrewing were his true passions alongside baking. He was a real nerd. He'd bring in bottles of his homebrew to house parties and talk endlessly about the ingredients and process to bottle and brew his first batches of 'Scaldy Porter'. All of us just poor students just wanted the free booze but first we'd listen to Alex talk excitedly about the blend of malts he used in his latest batch. We didn't really notice it then, or at least I didn't, but he was clearly a genius when it came to the alchemy of brewing.

As most of us in the university degree either dropped out, stayed back a year (as I did), graduated or parted ways, thankfully, Alex was still a bit part of my life even after I graduated and moved to London. As I began to work in the beer scene over here we kept in touch. When Alex called you or you him, you knew you were in for a long conversation of laughs, plans and general 'doing'. And 'doing' is the perfect word to describe Alex.

He was always up to something.

Always improving. He had an unrivalled restlessness. Every time I'd come back home to Dublin, I'd drop him a line. "Sure just come by the brewery," he'd said nonchalantly. And this was before he and Alan had their own space but at a brewery they were renting a few tanks at. And it was clear just from the first few minutes that they'd outgrown the space.

He kindly guided myself and my wide-eyed brother around the brewery sampling tank after tank. Each beer was as good as the last. I thought to myself about how this university party legend (ask me for the specific nights if you want) had created a brand and brewery so different from anything else in Ireland at the time. It was truly incredible. His infectious conviviality had been superimposed onto the Whiplash brand and identity. And it resonated deeply with drinkers.

Fast forward through many phone calls, meet-ups at beer festivals, even a job offer and pints and meals in Dublin and London. I was so happy to call Alex a friend. I'd happily catch up with him over a pint and listen to him talk about mash filters for hours. To talk about the harsh realities of the Irish beer market or the mischief he and Alan recently got up to. Alex truly was so generous. With his time, his intellect, but I think most importantly with his attention. He has left such an indelible impact on the beer world, Dublin, me and so many lives.

With Alex you knew you were in for a long conversation of laughs, plans and general 'doing'," Peter Kennelly, Pillars Brewery

More recently he replied to an Instagram story I posted and made me laugh. "I'm not reading your blog, man, just pick up the phone". In a world full of content, confusion, consumption, chaos and intensity, all Alex really wanted to do was slow down and have a chat. And you know what, we need more people like Alex. Miss you dear friend.
Peter Kennelly, Pillars Brewery

I first met Alex on the streets of Barcelona in 2018. He and Alan had travelled over to collaborate with Garage, and we were there to pour at the Barcelona Beer Festival. They were somewhat dusty from the previous evening, but the life and energy they brought was palpable.

Whiplash had emerged as one of the most exciting breweries in the European beer scene, their beer and aesthetic immediately putting them on everyone's radar, and justifiably so. In meeting Alex and Alan that day, I saw a brotherhood and partnership that I knew would carry forward for many years to come.

Over the years, pouring alongside them at festivals across Europe, I got to know Alex a little better, and what became apparent was that it wasn't just brewing that he knew a lot about. It was, well… everything. Democracy in India, some esoteric music genre, he was versed and confident to unpack it all there at the bar.

Sometimes he'd scramble my mind talking about fermentation profiles and mash efficiencies, and I'd smile and nod, hoping he wouldn't notice I had no idea what he was talking about. But I was happy to be in his company, to be around a passion and intelligence so sharp it left me feeling like a wooden spoon. I loved those conversations, and I feel a great sadness that I won't get the chance to have more of them. He was a man who contained multitudes, and I feel I barely scratched the surface.

For me, the greatest part of this industry is the people. I've been privileged to meet so many wonderful, fascinating, caring folks over the years, all pursuing their own passions in their own ways, and Alex was one of the brightest sparks among them. Our lives but brushed against each other, but the mark he left is something I cherish and is lasting. I just wish I could sit with him for one more beer.
Stefan Melbourne, Track Brewing Co

I was fortunate enough to meet Alex when I was still working as a barman and bar manager in two craft beer bars in Barcelona, Ølgod and Kælderkold. At the time, I was trying to find my place in the industry and understand where my future might lie. Everything changed when I met Alex and Alan. Alex became not only one of my closest friends, but also one of the most important mentors I ever had in brewing.

Around 2016-2017, he encouraged me to take what was then the General Certificate of Brewing, helping me see brewing not just as a passion, but as a profession that I could truly dedicate myself to. His passion, obsession with precision, and depth of knowledge shaped my perspective in a way that nothing else had before. He also gave me my first brewing job in Dublin, an opportunity that changed the course of my career. The confidence he placed in me at that stage of my life had a lasting impact, and I will always be grateful for it. My partner Victoria and I built Oddity Brewing thanks in large part to the encouragement and support of Alex and Alan. More than six years later, I still find it hard to believe what we have achieved. Without their belief in us, I am not sure Oddity Brewing would exist today.

Beyond his technical knowledge and achievements, what I will remember most is his generosity. He was always willing to share his time, his experience, and his advice with others. Alex's influence can be found in countless ways. I will always remember his unique sense of humour and his unmistakable laugh. He had a gift for telling jokes, especially the terrible ones, and somehow making everyone laugh. His memory will live on in the many great songs, stories, beers, and moments shared with friends throughout the years. And if there is one thing Alex truly excelled at beyond brewing, it was being a proper seshlord, whether that meant sharing a late-night pint or slinging pints of Slow Life Nitro Stout at Dark City's first showcase.
Iván Raho, Oddity Brewing

Alex Lawes | 1988 – 2026

I think his biggest strength is and was the phenomenal ability to bring people together from all different walks of life. He could connect people who shouldn't be together. But he did so in such a normal and organic way," Alan Wolfe, Whiplash

BREWERS INTELLIGENCE
THE YEAST REPORT

JUST WHAT ARE THIOLS? AND JUST HOW CAN WE DEBUNK THEM? IN THIS ARTICLE ALIX BLEASE, TECHNICAL SALES REPRESENTATIVE FROM LALLEMAND BREWING HIGHLIGHTS THE KEY FINDINGS FROM RECENT PAPERS IN THE FIELD AND ALSO BREAKS DOWN SOME OF THE SCIENTIFIC JARGON WITH THE AIM THAT YOU ARE ABLE TO APPLY THESE FINDINGS TO YOUR OWN BEER.

When I started at Lallemand 3 years ago, the first article I wrote for the Brewers Journal answered the questions; what are thiols and how do you maximise them in your brewing process? If you're sitting reading this, waiting for your wort to boil and thinking to yourself "what is she talking about; what is a thiol?" I invite you to go back and take a read of that first article, available on the Brewers Journal website (Winter Report 2023).

Since then, the research of these poorly understood compounds has been advanced by Thomas Shellhammer (Oregon State University) and the team at Lallemand. Over the past year there have been several key papers published on the topic of thiols and biotransformation in beer.

These papers focus on influential factors which affect the level of thiols in a pint, for example, yeast strain, fermentation temperature, free amino nitrogen (FAN) level and the impact of dry hopping. This research has revealed more about the pathways through which yeast free the bound, non-aromatic, thiols in beer. It is worth noting at this point that these papers are by no means exhaustive, and there is still much research to be done in this area of beer flavour and aroma.

In this article I hope to highlight the key findings in these papers and breakdown some of the scientific jargon with the aim that you are able to apply these findings to your own beer.

Firstly, let's examine the influence of fermentation temperature and yeast strain selection on the free thiol concentration in finished beer. Comparisons were made between four ale strains; Nottingham, Verdant, BRY-97 and London, as well as one lager strain, Diamond.
An identical wort, with Cascade hops added hot-side, was fermented with each of the five yeast strains at 15, 22 and 30°C.

The highest level of free thiols was produced by Diamond yeast at 30°C. However, when analysed by a panel of 25 experienced tasters the beers produced using the ale strains at the warmer temperatures of 22-30°C were described as the most tropical.

Fermenting using Diamond at 30°C may release more free thiols but it also creates a lot of other undesirable sulphur compounds, which in sensory analysis can mask the positive tropical notes of thiols.

High thiol concentrations alone did not guarantee enhanced tropical character,emphasising the critical role of synergistic interactions between thiols and other aroma-active compounds such as esters and terpenoids.

Wort FAN level also had an impact on the production of free thiols. In this experiment the base worts had varying FAN levels of 110, 240, 360 mg/L and were again hopped hot-side with Cascade. The same yeast strains selected, with one addition, an ale yeast, Verdant, which had been genetically modified to inactivate the ICR7 gene. ICR7 is thought to be the gene in yeast responsible for encoding the -lyase enzyme. -lyase is an enzyme responsible for cleaving bound-thiols resulting in free thiols.

Lower FAN levels; 110-240 mg/L were responsible for the highest release of thiols. However, in sensory studies higher FAN levels were determined to be the most tropical, due to the higher level of ester production. Interestingly, the IRC7-knockout Verdant maintained a similar level of thiol production to the regular Verdant yeast, suggesting alternative gene or enzymatic pathways for thiol release.

Nottingham and Diamond exhibited robust performance and thiol release across FAN treatments, whereas strains like BRY-97 and Verdant IPA showed greater sensitivity to nitrogen level, including increased off-flavour potential at FAN extremes.

In the most recent paper the thiol, 3-sulfanylhexan-1-ol (3SH) in its bound form was quantified throughout the brewing process and the resulting free thiol, responsible for grapefruit and passionfruit aromas, was measured in each of the finished beers. Four fermentation profiles were analysed (see diagram). Two were fermented with Verdant, and two with Diamond. For each yeast strain analysed one of the fermentations was dry hopped and the other was not.

All of the profiles had the same amount of Cascade hops added hot-side at two addition points, 1.9g/L at the start of boil and 3 g/L in whirlpool. It was found that 91% of the available bound-thiols in the hops were transferred into the wort. This is a high transfer efficiency and indicates that a large percentage of the bound-thiols are not driven off during the boil.

In both the dry-hopped and non dry-hopped beers fermenting with Diamond resulted in 1.6x higher levels of free-thiols than the beers made with Verdant. In both dry-hopped beers, made with Diamond and Verdant the free-3SH levels were 2.1x higher than their non dry-hopped counterparts.

However, it is worth noting that the free-3SH in all the beers accounted for less than 1% conversion of the available bound-precursor and around half of all the available precursor compounds remained unconverted in the final beer. Therefore, the availability of bound-precursors is not a limiting factor, the main influencing factors are the choice of yeast strain and the addition time of the hops.

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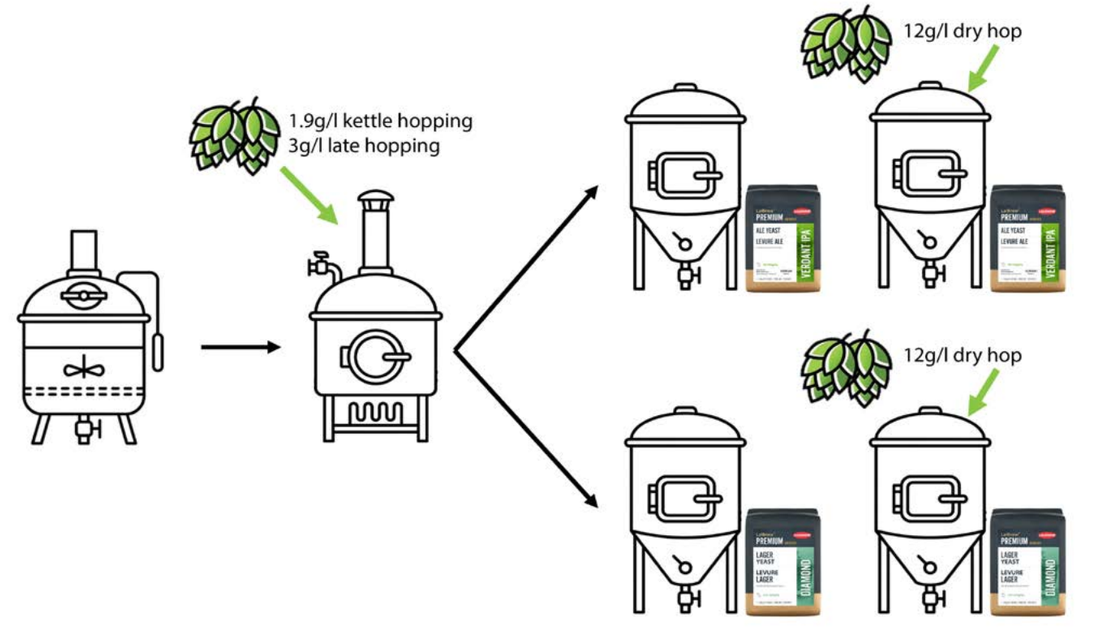
"The results emphasize that the 3SH generation is not limited by precursor supply but by the metabolic competence of the yeast and the timing of hop additions," Alix Blease, Lallemand Brewing



Right: Four fermentation profiles were analysed. Two with Diamond yeast and two with Verdant yeast.

BREWERS INTELLIGENCE
THE HOP REPORT

THE DEVELOPMENT OF NEW HOPS, AND THE HEALTH OF EXISTING CROPS, PLAY AN INTEGRAL ROLE IN THE BEERS WE BREW. HERE, BARTH HAAS SHARE THEIR LATEST CROP UPDATE DETAILING ACREAGE AND PLANT DEVELOPMENT IN GERMANY, AS WELL AS THE CZECH REPUBLIC, POLAND, SLOVENIA AND THE USA.

The area under cultivation in Germany decreased by 1,101 ha (-5.8%) to a total of 17,861 ha. As was already the case in 2025, the world's largest variety by area, Herkules, continued to decline, with its cultivation area decreasing by 202 ha. In contrast, the high-alpha variety Titan showed a further increase of 158 ha (+28 %).

Aroma varieties continue to decline. The largest absolute decline is recorded by the Perle variety at -337 ha (-14%), followed by Hallertauer Tradition at -299 ha (-15%). Flavor varieties are also continuing to decline: Amarillo, Hallertau Blanc, and Mandarina Bavaria all lose acreage in the double-digit hectare range. In addition, the varieties Opal (-59 ha), Hallertauer Taurus (-39 ha), Hersbrucker Spät (-33 ha), Northern Brewer (-24 ha), and Nugget (-15 ha) were grubbed up.

As in previous years, the number of active farms continues to fall on 904 (-62) active growers. As was the case in 2025, not all of the land becoming available is leased to neighboring farms, meaning that they are no longer in production.

Sufficient rainfall in the fall and winter of 2025/2026 filled the soil with water. In addition, a very cold January ensured good frost penetration in the upper soil layers, thus creating favorable conditions at the start of the growing season. Following a rainy February, mostly dry weather in March and April provided good conditions for spring work.

Warm temperatures in late April promoted growth, and most of the crops could be trained starting in late April, a few days earlier than usual. May was also very dry and warm throughout the Hallertau region. Localized rainfall did not occur until early June, but overall, the spring was significantly too dry.

The hop crops have currently reached BBCH stages 39 to 41, meaning the hop plants have now reached 90% or full trellis height. This is about in line with the long-term average. Downy mildew is not currently present.

In affected areas, the first spots of powdery mildew have been found. The immigration of aphids has ended. The first plant protection applications are currently in progress. Red spider mites are present in many crops. Acaricide treatments are planned for the coming weeks on most farms.

In the Czech growing regions, the area under cultivation was reduced by a further 26 ha (-0.5%) to a total of 4,786 ha. Despite a good harvest with equally good alpha yields last year, the Saazer aroma variety was reduced by 10 ha (-0.3%). This is largely due to rising production costs and uncertain production conditions caused by weather.

For the Sladek variety, an additional 12 ha were planted due to cultivation-related advantages. Other well-known Czech varieties each saw slight reductions.

The development stage of most varieties is in line with the long-term average. As in other European growing regions, conditions have been dry and warm, though there have been occasional isolated showers.

Both diseases and pest infestations have been limited to isolated cases so far. In addition to downy mildew, there have been isolated cases of red spider mite infestation.

In Poland the area under hops in those growing regions has remained very stable due to the structure of the farms and has even seen a slight increase. Although the cultivation of high-alpha varieties such as Magnum and Magnat has declined, new plantings and increases in acreage—particularly of the Lubelski variety—have been seen over the past two years on farms, which are mostly small-scale.

> **"The hop acerage in the Pacific Northwest of the United States remains almost constant at 16,853 hectares, compared to 16,857 hectares the previous year," Barth Haas**

The hop area in Polish growing regions has remained very stable due to the structure of the farms and has even seen a slight increase.
Although the cultivation of high-alpha varieties such as Magnum and Magnat has declined, new plantings and expansions of acreage have taken place over the past two years, particularly for the Lubelski variety, on the mostly family-owned farms.

Since the 2025 harvest in Slovenia, there have been significant reductions in hop-growing acreage in the country. Nationwide, a total of 262 hectares of hops were reduced but 110 hectares were also replanted. This results in a total reduction in acreage of 152 hectares.

The largest reduced variety, at 154 hectares, was Aurora, for which many quantities would not have been contractually bound due to a low pre-contract rate. For the fourth year in a row, new plantings were made for the Celeia, expanding the area by 48 hectares.

The winter and spring months were consistently warmer than normal for that time of year. This was combined with below-average precipitation; for example, in April, only 25 % of the long-term average was recorded. May also brought high temperatures, reaching up to 32 °C. In early June, a severe hailstorm struck the Savinja Valley, Ptuj, and Ormož.

A large area of Slovenia's hop-growing region—900 ha—was affected. The damage ranges from a 70 % reduction in heads of the hop bines to complete destruction of the plants, leaving only bare vines. These fields are not expected to be harvested. Undersupply is expected for all varieties.

The hop acerage in the Pacific Northwest of the United States (Washington, Idaho, and Oregon) remains almost constant at 16,853 hectares, compared to 16,857 hectares the previous year.

With an increase in acreage of 182 ha (+6 %), Citra—the most important variety—continues to expand its leading position and will account for approximately 19 % of the total hop acreage in the PNW by 2026. The aroma varieties Krush and Dolcita also saw significant growth, noticeably increasing their share of the total area.

In contrast, the cultivation of Amarillo, Azacca, Simcoe, and Mt. Rainier declined, with their areas being significantly reduced. Among bitter hop varieties, CTZ remains the second-largest variety in the PNW with a 9 % share of the total area, despite a reduction of 384 ha (-19 %). The Apollo variety was completely taken out of production (-296 ha).

In contrast, the Helios variety recorded an increase in area of 458 ha. With an estimated cultivation area of approximately 51,350 ha, the global decline in hop cultivation will continue in 2026. Compared to the previous year, this represents a decrease of about 3 % or 1,300 ha.

BREWERS INTELLIGENCE
THE GRAIN REPORT

THE GLOBAL BEER MALT MARKET IS SET TO GROW AT CAGR (COMPOUND ANNUAL GROWTH RATE) OF 6.4% OVER THE NEXT SEVEN YEARS TO £6.2 BILLION, ACCORDING TO NEW RESEARCH.

The beer malt market size, which was valued at £3.18 billion in 2024 and is poised to grow from £3.6 billion in 2025 to £6.2 billion by 2033. According to the findings in 'Global Beer Malt Market' from Market Size and Trends, Artificial intelligence (AI) is revolutionizing the beer malt market by enabling precision malting processes, predictive quality control, and supply chain optimisation.

AI-driven analytics, they said, facilitate real-time monitoring of germination, roasting, and drying parameters, reducing waste and enhancing consistency—crucial for premium craft and specialty malts.

Furthermore, AI enhances demand forecasting accuracy, allowing producers to align inventory with fluctuating consumer preferences and seasonal trends, thus minimizing costs and maximizing profitability. Geopolitical factors, including trade tensions, tariffs, and regional trade agreements, significantly influence raw material sourcing and export dynamics. For instance, recent tariffs on barley imports in certain regions have prompted malters to diversify sourcing strategies, impacting pricing and supply chain resilience.

Political stability in key barley-producing countries like Australia and Russia directly affects raw material availability, while regional policies promoting sustainable agriculture influence malting practices. Forward-looking scenarios suggest that geopolitical risks could induce volatility, but also create opportunities for local sourcing and technological innovation to mitigate disruptions.

The report says that United Kingdom's beer malt market size was expected to grow to £750 million in value by 2033. They attribute this to demand for organic and specialty malts, and innovations in malting technology.

"The UK's strong regulatory framework supporting food safety and sustainability, coupled with a vibrant craft beer culture, fosters innovation and premiumisation. Import reliance for certain raw materials and Brexit-related trade uncertainties pose risks, but regional sourcing and technological advancements are mitigating these challenges," they added.

And in East Anglia, Crisp Malt recently shared a crop update in which the company says it is experiencing a similar year to the 2025 crop, with the growing season seeing a lack of rain.

They explain: "The recent rains have been of some help, along with the sunshine for grain filling, however there has been some damage to spring barley, which will affect yield and quality. This is reflected in the most recent AHDB crop ratings. The biggest question is whether the crop has taken up nitrogen during the season, and what the nitrogen of the barley will be on intake.

"Overall however, due to the drop in demand from the maltster, there is not too much concern about being able to obtain the quality of barley required at the right quality. In terms of winter barley, condition generally looks good, despite some disease concern earlier in the growing season.

"The recent rains have certainly helped to finish of this barley, which is moving through growth stages quite quickly. We would expect to see the first cuts of winter barley in the next couple of weeks."

And in Scotland, the company says the rain came in good time for the Scottish spring barley, due to later planting than crops in East Anglia, meaning yield and quality is thought to be less affected. The crop is currently in the awn emergence stage, with low disease pressure overall, and yield potential has stabilised. The biggest quality risks to monitor will be grain size, which will largely be affected by sunshine and moisture in the coming weeks, as well as nitrogen of the grain on intake.

> **The recent rains have certainly helped to finish of this barley, which is moving through growth stages quite quickly. We would expect to see the first cuts of winter barley in the next couple of weeks," Crisp Malt**

BREWERS INTELLIGENCE
THE SALES REPORT

WITH THE LATEST HEATWAVE COMING TO AN END BUT ANOTHER ON THE HORIZON, CONSUMERS ARE TURNING TO PARTICULAR STYLES TO QUENCH THEIR THIRST. AND FOR MANY, THAT MEANS FRUIT-FORWARD LAGERS AND PALE ALES.

With the World Cup in full-flow, consumers are contributing to major revenue boosts in the on-trade. Figures from the British Beer and Pub Association (BBPA) indicated that an additional £22.5m would be spent during England's last group game against Panama. While Scotland's earlier group game against Morocco was expected to be worth around £2.6 million to the trade, according to analysis by the Scottish Beer and Pub Association (SBPA).
And when it comes to the on-trade, flavoured lager is the fastest growing category delivering 30% volume growth in 2025, and now accounting for more than 2% of all lager sales in the off-trade.

According to new findings from YouGov, younger adults are leading fruit beer adoption, with regular consumption reaching 6% among both 18–24 and 25–34-year-olds. Berry flavours, they said, have the strongest appeal, with 36% of UK adults saying they would be most interested in strawberry, raspberry and similar fruit beer options.

Flavour is the biggest purchase driver, with 43% of alcohol drinkers saying an appealing taste would encourage them to try or buy fruit beer. Fruit beer has a strong seasonal opportunity, with 55% of alcohol drinkers saying they are likely to drink it during the summer months. Around 2% of UK adults say they drink fruit beer regularly. A further 9% have tried fruit beer but do not drink it regularly, while 20% have tried it once or twice.

According to the YouGov research, around a quarter (26%) have heard of fruit beer but never tried it, while 40% say they had not heard of fruit beer before taking part in the survey. Younger adults are more familiar with fruit beer, the company added, with regular consumption reaching 6% among both 18–24-year-olds and 25–34-year-olds. 19% of adults aged 18–24 have also said they have tried fruit beer once or twice.

From their findings, berry flavours such as strawberry and raspberry rank highest, being selected by nearly 40% (36%) of UK adults.

They added: "Citrus flavours and orchard fruit flavours such as apple and pear follow at 26% each. Tropical flavours appeal to 24%, while mixed fruit flavours attract 19%. Women are more likely than men to select berry flavours (41% vs. 31%). Tropical flavours show particularly strong appeal among younger adults, reaching 35% among 25–34-year-olds compared with 15% among those aged 55 and over."

And among UK adults who drink alcohol, the findings revealed that 43% say an appealing flavour would encourage them to try or buy fruit beer. Recommendations from friends and family rank second at 30%, followed by good value for money (28%) and availability in pubs, bars, or restaurants (24%). Brand-related factors carry less influence. Around 15% say a well-known or trusted brand would encourage purchase, while 10% mention eye-catching packaging or branding.

Among alcohol drinkers, 55% say they are likely to drink fruit beer during summer, including 19% who say they are very likely. This compares with 40% in spring, 22% in autumn and 15% in winter.
The YouGov findings suggest that fruit beer is strongly associated with warmer-weather drinking occasions, with interest highest during summer and lower during autumn and winter. But for those that do not drink fruit beer more often was a preference for other alcoholic drinks, cited by 31%.

The company added: "A further 19% say they do not like beer in general, while 17% say they are trying to reduce their alcohol consumption overall. Flavour is the key factor influencing interest, berry and citrus profiles have the broadest appeal, and consumption is strongly associated with summer occasions. While most consumers do not expect their consumption habits to change, younger adults are more likely than older groups to anticipate increasing their fruit beer consumption over the coming year."

"Tropical flavours show strong appeal among younger adults, reaching 35% among 25–34s," Janice Fernandes, YouGov

LEADING A LAGER REVOLUTION

A CAREER THAT HAS TAKEN HIM FROM BIRMINGHAM TO BEDFORD, VIA DUBLIN, KENT AND MORE BESIDES, CHRIS REID IS THE HEAD BREWER AT DAMM'S EAGLE BREWERY IN BEDFORD, THE SPANISH BUSINESS'S FIRST BREWERY OUTSIDE THE IBERIAN PENINSULA IS CAPABLE OF PRODUCING NEARLY TWO MILLION HL A YEAR. AND ON THE GROUP'S 150TH ANNIVERSARY, THAT IMPRESSIVE GROWTH IS ONLY SET TO CONTINUE.

To have a career in brewing is a full-time learning experience. Every day is a school day. That's the way it should be."

And in helping oversee a team of nearly 100 production colleagues on a daily basis, Chris Reid isn't prone to exaggeration. The head brewer at Damm's Eagle Brewery in Bedford, Reid has gone from being "head brewer in a brewing team of two" at the Firkin microbrewery chain in Birmingham, to creating award-winning Hefeweizen's in Dublin before joining Shepherd Neame in Kent for production brewery experience.

The opportunity for personal development as a technical brewer would then lead him to Charles Wells in Bedford before a change of ownership at the facility would lead Reid to managing a contract brewing operation, NPD and brewery operations on beers like Kirin Ichiban for Marston's.

Fast-forward several years and the Bedford site would be home of the newly-created Carlsberg Marston's Brewing Company. But that, they say, is all in the past. And for the last three years, Reid is the proud head brewer at Damm Brewery after the Spanish business acquired the Bedfordshire facility at the end of 2022 before inaugurating it last October.

Speaking at the time, Damm's managing director Jorge Villavecchia said the company's commitment "goes beyond capital investment".

"We are bringing skills, innovation and a vision of how industry must evolve to remain competitive: more digital, more sustainable, more resilient," he added. "This country has shown, time and again, its ability to adapt and emerge stronger from adversity. That is why we believe that our decision to invest in Bedford will contribute not only to Damm's growth, but also to the resilience of the UK's wider economy."

And the numbers are speaking for themselves. The company recently recorded a 19% increase in sales in the UK and group revenues of €2.01 billion (£1.73 billion) along with a net profit of £133 million during 2025. The figures were released at the company's recent AGM where international growth was described a key driver at the business with Damm presence in more than 130 countries.

During 2025, Damm sold 22 million hectolitres of beverages across its beer, water and soft drinks portfolio with Damm UK accounting for 578,000 hectolitres of that – 19% more than last year for Damm UK.

In May, Damm UK also announced it was to acquire the Old Speckled Hen family of beer brands from Greene King. The award-winning family of brands includes Old Speckled Hen, Old Golden Hen, Old Crafty Hen, Old Master Hen and Low Alcohol Old Speckled Hen subsequently joined the Damm portfolio at the start of July.

Commenting on the latest figures, Luke White, managing director of Damm UK says: "2025 was a great year for Damm UK, as we delivered strong growth, with both sales and volume up 19%. Furthermore, we grew our private label and contract manufacturing business by 34%. We also created 40 new jobs. "This solid business performance demonstrates the strength of our successful UK strategy, following sustained investment in the Damm Eagle Brewery which has seen the rise of Estrella Damm and our wider portfolio, as well as driving industry awareness around Damm UK.

"This has given us the platform to make bigger strategic moves to accelerate our growth, such as evolving our portfolio with the acquisition of Old Speckled Hen, cementing Damm UK's position as the largest independent brewer in the UK market."

And in the UK, at the Bedford facility, the site's daily processing and packaging activities are overseen directly by Site Leader Chris Reid, alongside Packaging Manager Fiona Wakelin and Brewing Manager Stavros Photiou. Quality compliance and assurance are driven by Site Quality Lead Olay Ogunjobi, while

DAMM BREWERY

Chris Reid (centre, middle row) with members of his production team at Damm's Eagle Brewery in Bedford, 2026

workplace safety routines and physical plant optimisation are directed by Health & Safety Manager Julie Goodman and the engineering department.. Together, this core leadership matrix supervises all beer and liquid processing streams from raw materials intake to the final packaged product.

"For me, the team side of this role is the best part. I love interacting with them and learning from them," says Reid.

But for this decorated head brewer, whose career spans more than 30 years, Reid never initially set out to work in the field. Instead, a series of chance meetings and opportunities taken would mean this Birmingham native would become one of the UK's most important and respected brewing professionals. "It was kind of an accident, really," Reid reflects. "I didn't set out with a goal of getting into brewing". Reid's initial fascination with beer production did not spark in a commercial setting, but rather at home, where he developed a keen personal interest in the craft.

His studies guided him to the University of Leeds, where he completed a degree in microbiology. While his academic curriculum featured a minor brewing element, Reid says he didn't actively engage with university career advice services at the time, operating under the general assumption that he would likely remain in academia. "I thought I was probably going to stay on and do some sort of post grad thing, which I did explore a little bit," he recalls.

However, a chance encounter completely altered his life's trajectory. "You could call it an accidental meeting in one of my local pubs in Birmingham that had just become a Firkin brewery site," Reid explains. "So I went down there with my girlfriend at the time, the guy out in the backyard who was sweeping up the wood shavings on the opening night, turned out to be the pub area manager". Upon learning that Reid had just graduated with a microbiology degree, the manager told him "'Well actually we've got the brewery right here that we need to find somebody for'".

The manager provided Reid with contacts for the production team at the Holt, Plant & Deakin Brewery, located on Dudley Road in Wolverhampton, West Midlands. In a bizarre twist of fate, it turned out that Reid had actually visited this exact facility years prior during a school trip. Following a successful interview, Reid was offered the job.

He officially commenced his professional career as an assistant brewer at the Faculty & Firkin in the Aston area of Birmingham, a venue situated right in the heart of the Aston University campus and formerly known to locals as the Pot of Beer pub.

The day-to-day realities of this assistant role were intensely physical and entirely unglamorous. "In a brewery that size, when there's one or two of you, you've got to be prepared to do everything," Reid explains. "So in the assistant role there was a lot of washing casks by hand. That was one of the main functions. And then jumping into the mash to dig it out. So, it was good fun, but it was hard work".

As the Firkin chain rapidly expanded its footprint across the country, Reid's technical competence earned him a rapid promotion, and he relocated north to become the brewer at a newly opened Firkin site in Sheffield.

In Sheffield, Reid took on the responsibilities of running what was colloquially termed a "head brewer of two" setup, which introduced him heavily to the administrative and managerial dimensions of commercial brewing operations. "Then you've got the admin side of it and the management side of it as well," he notes.

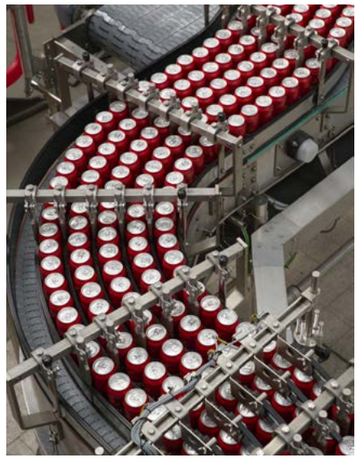
"Every day is a school day. That's the way it should be," Chris Reid, Damm UK

However, after a couple of years in Sheffield, the operational landscape for the Firkin chain began to deteriorate. "It became obvious that the writing, I think, was on the wall for the Firkin chain," Reid observes. "They were very student oriented, and I think the humour just got a bit tired." While Reid respected the brand, the company began making widespread redundancies, which directly impacted his partner.

Amidst this corporate decline, another serendipitous meeting dramatically redirected Reid's career. Reid would cross paths with Brendan Dobbin, a highly regarded brewery installation engineer. "I met him for the first time, and he inspired me to see brewing as more of a science than an art or a craft," he says. Motivated by this technical awakening, Reid began purchasing specialised textbooks to deeply educate himself on brewing science. This relationship bore substantial professional fruit when Dobbin, who was overseeing a new microbrewery installation in Dublin, recommended Reid for the head brewer role.

Reid secured the position, initiating a highly successful five-year tenure in the Irish capital alongside his girlfriend. At this new establishment, named Messrs Maguire, Reid operated with an extraordinary degree of creative freedom. "The owners of the company, they weren't brewers, they were just pub operators, so they just pretty much gave me a free hand to do what I wanted to do," he explains.

Reid developed a diverse and progressive portfolio that was radically ahead of its time for the contemporary Irish market. The core lineup included a classic plain Porter, a robust 5%



(Right) Damm's Bedford facility.
(Middle right) Octavio Marti, Damm COO Jorge Villavecchia, Damm MD & Gonzalo Garcia Andrés serves as the Head of the Economic and Commercial Office at the Embassy of Spain
(Bottom right) Luke White, MD, Damm UK

ABV porter dry-hopped with Cascade hops, a red ale, a US-style lager, and a continental-style lager. He also introduced a dynamic, highly varied seasonal beer program. "We were just doing different styles, whatever we wanted, really," Reid adds.

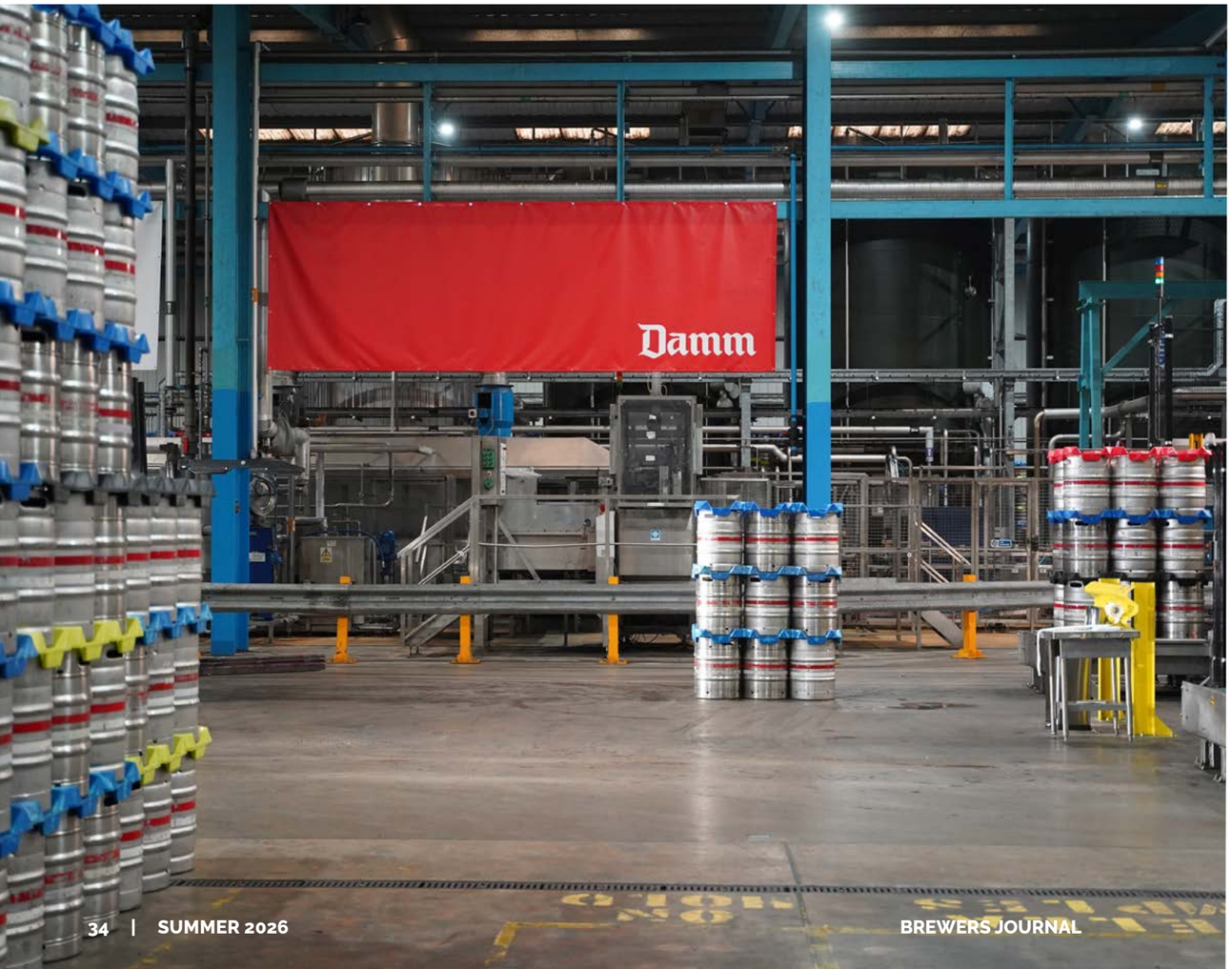
A standout achievement from this era was a one-off 5.2% ABV German-style Hefeweizen. "We did a 5.2% German Hefeweizen style as a one off, but that was really popular, so that became part of the core range," Reid shares. "We entered that into the Burton Beer competition, and that actually won a gold medal and knocked Schneiderweiss into silver, which they weren't very happy about. It was quite a good day. I was surprised!".

By 2003, after five highly rewarding years in Dublin, the logistical strain of constantly travelling to visit family and friends in England prompted Reid and his partner to plan a permanent return home. "Five years in Dublin was quite a long time. There's the hassle of getting back to see family and friends. You've always got to go to the airport and there's everything that comes with it," Reid recalls.

Choosing long-term professional development over immediate financial security, Reid took a calculated risk and returned to the UK without a pre-arranged job, opting instead to embark on an extended period of international travel. "I suppose I took a bit of a risk, career-wise, by not having a job to come back to, so we decided to do some travelling," he shares. The couple spent three months touring Italy in a small Fiat Punto, after which Reid extended his travels by spending an additional month visiting a close friend in Ukraine.

Upon returning to England, Reid briefly worked in Sheffield where he had established industry contacts. Although

> **"2025 was a great year for Damm UK. This solid business performance demonstrates the strength of our successful UK strategy," Luke White, Damm UK**



he and the pub operator seriously explored the prospect of establishing a brand-new brewery together, the venture ultimately failed to materialise. Recognising that his career required a step up in manufacturing scale, Reid resolved to undertake the rigorous Institute of Brewers Master Brewer examinations. "I decided I wanted to do those exams, and really, I needed to be working somewhere a bit more sizeable to be able to gain the right experience for that," he explains.

Reid embarked on what he now fondly remembers as a "blanket CV" campaign, writing to virtually every regional brewer across the United Kingdom. "I blanket CV'd pretty much every regional brewer in the UK at the time," he recalls. "I've still got the folder with all the letters that came back. There are lots of famous names from all the regional brewers at that time".

This structured effort yielded several interviews with household industry names, including Marston's, Banks's, and Shepherd Neame, and Reid ultimately accepted a role with Shepherd Neame, relocating down to Kent.

The move to Shepherd Neame provided the exact operational exposure Reid required to advance his studies. The historic Kentish brewery offered a fascinating blend of traditional and modern methodologies; the company's extensive range of cask ales was still brewed utilising traditional wooden mash tuns, while its lager production utilised a modern, high-volume brew stream.

Working at this regional scale allowed Reid to gain vital experience across comprehensive packaging operations—specifically overseeing cask, keg, and high-speed bottling lines—as well as large-scale industrial brewery utilities such as steam raising. "It was a great grounding for the master brewer exam," Reid remarks.

Through attending revision courses and building a robust professional network of peers, Reid learned of a team leader vacancy at Charles Wells in Bedford—a position that offered an exceptionally lucrative financial step forward.After a successful interview process, Reid accepted the job. When he arrived, Charles Wells had recently finalised a major corporate merger with Young's of Wandsworth, resulting in all Young's beers being brewed at the Bedford site.

The integration brought a wave of young, enthusiastic brewing talent from Wandsworth to Bedford, creating a vibrant but intensely busy manufacturing environment. "The brewery was busy. It was really busy," Reid emphasises.

The production volume surged further as Charles Wells acquired the brewing rights for major heritage brands like Courage, Director's, and McEwan's. Operating at near-total capacity, his core responsibility as team leader was ensuring the seamless, continuous throughput of high-volume production.

"The brewery was pretty much at capacity at that time. Some of it was contract brewed. That meant beers like Red Stripe and Cobra as well," Reid notes. Over time, however, the commercial landscape shifted: an option to purchase Cobra was declined due to excessive costs, Red Stripe's contract terms changed, and overall production volumes began to gradually drop off.

While the development of craft beers under the internal "Charlie's" banner temporarily revived production, the Wells family eventually reassessed their long-term position, choosing to exit large-scale commercial brewing to focus on their boutique Brewpoint facility, subsequently selling the primary Bedford brewery to Marston's.

While Marston's would go on to merge with Carlsberg UK to create Carlsberg Marston's Brewing Company (CMBC), the newly-formed company's Bedford site would go on to eventually by acquired by the Spanish brewing giant, S.A. Damm, transitioning the site into the modern Damm Eagle Brewery.

For Reid, adapting to this shifting corporate culture highlighted the necessity of professional flexibility, reinforcing his core belief that "every day is a school day" in a lifelong brewing career.

Under Damm's stewardship, Reid encountered a distinct and highly effective corporate culture. "With Damm I think there's the right level of corporate," he notes. "With Damm I think there's the right level of corporate," he notes. "Damm has struck the right balance so there is a nice working culture at the brewery, and this is hard to get right."

For Reid, Damm has an uncompromising philosophy where product integrity is paramount. "There'sa big change in how we view quality," Reid notes. "Quality is king for Damm. Damm also wants the facility to look its best and the business will invest in achieving this, which I think a lot of the UK regionals just don't have the money to do".

This financial backing translated into an extraordinary, highly intense period of engineering modernisation over the last couple of years, offering a fantastic opportunity for the entire team. Reid was tasked with overseeing five or six major engineering projects running concurrently. "On the surface, it was very daunting, because any one of the individual projects would have been seen as quite a meaty project in itself," Reid admits. "But having five or six different big projects all running concurrently was a challenge but the support has been amazing. The company know what they're doing."

To manage this immense workload, Damm restructured his operations, embedding a dedicated project engineer within his own local engineering team. He stresses that navigating this immense transformation was fundamentally a collective triumph, rather than the work of any single individual. "It goes back to how we started. It's all about the team. No task is reliant on one person to make things happen. It's a team effort".

BREWHOUSE OPERATIONS

Beers at The Eagle Brewery are produced using two distinct, identical brew streams fabricated by Briggs and Landaluce. Each processing stream incorporates a specialised cereal cooker, a mash mixer, a lauter tun, and

a combined copper/whirlpool vessel. Operating with a standard batch brew length of 250 hL, the facility is capable of executing up to 12 complete brews per day under full SCADA control. To ensure continuous compliance with design metrics, automated SCADA systems generate exhaustive brewhouse reports at the completion of every brew cycle, supplemented by weekly laboratory audits analysing grist particle distribution, cold break performance, and process water.

Inside the individual brewhouse vessels, raw inputs are transformed via automated, highly customisable routines. The programmable cereal cookers handle step mashing and boiling protocols for varied grain matrices, including maize, rice, or malted barley. For enzymatic conversion, the mash mixers support step infusion, pseudo-decoction, and double-mashing programs. This step is heavily monitored using automated sampling points that pull live parameters—such as pH and starch conversion metrics—without interrupting the active mashing cycle. The process also utilises weak worts during mashing in to capture residual extract.

Downstream, the lauter tuns regulate clarity and extract recovery using inline gravity and haze meters.

Operators can automate hazy wort recirculation based on precise turbidity thresholds or elapsed time blocks, collect weak worts, and re-dose recovered trub to squeeze out additional extract. First worts and sparging variables are adjusted to the customer's direct preference.

Finally, the copper whirlpool vessels drive boiling efficiency using an external calandria configuration, integrated steam/heat recovery loops, and specialised trub recovery paths. These units feature automated, pre-loaded hop dosers that enable multiple sequential additions without stopping the boil, alongside inline gravity, sugar, and cutting liquor dosing tools.

For volatile elimination, a vapour condenser can generate a partial vacuum, while total steam energy use remains adjustable with optional re-boiling loops to hit specific target evaporation rates.

CANNED CREATIONS

And when it comes to canning, their operation is centred around an advanced Sidel canning line capable of achieving high-speed throughput rates up to 90,000 cans per hour (cph). Canned product processing involves gaseous nitrogen injection nodes, precise extract dosing systems, and a comprehensive tunnel pasteuriser configured to deliver precise thermal treatment up to 50 Pasteurisation Units (PUs).

While standard operations handle a diverse array of pack formats across 330ml and 440ml primary configurations, extensive factory scaling scheduled across 2026 and 2027 will introduce a selection of new can formats and sizes to the plant's active matrix. To maintain optimisation metrics, production runs are subject to explicit Minimum Order Quantity (MOQ) boundaries: 330ml items carry an MOQ of 150,000 cans per SKU, while 440ml items carry an MOQ of 170,000 cans per SKU.

And today in 2026, Reid stands as the head of all production at the Eagle Brewery. His comprehensive mandate covers the brewing, packaging, and engineering departments. In keeping with Damm's rigorous focus on product integrity, the quality control department operates as a standalone entity reporting directly to corporate headquarters in Barcelona, maintaining a functional dotted-line reporting relationship with Reid for daily operations.

Under his leadership, the production and laboratory headcount has expanded significantly, growing from 67 staff members at the inception of the Damm takeover to 87 personnel today. This growth shows no signs of slowing down, with plans underway to recruit additional staff to cover a dedicated night shift in the brewhouse and a third operational shift on the canning line.

Reflecting on his proudest professional achievements, Reid points directly to the simultaneous culmination of these complex engineering projects. "When I think back to last year, bringing all those projects together. I recall just standing up on the balcony seeing that canning line after all the work that went into it, transforming it from the grey, dark warehouse it was prior. That had to be a moment of pride."

This achievement stands alongside his historic Dublin gold medal and the enduring professional satisfaction of mentoring graduate brewers who have developed under his tutelage before advancing into leadership roles across the wider UK brewing industry. "Seeing graduate brewers move up through the process and then going off elsewhere to the industry," Reid remarks warmly. "You never want to see them leave, but they've gone off and they're in other breweries around the country. That's always a nice feeling".

Looking ahead, Reid's focus remains squarely on commercial diversification and capacity expansion. The brewery is aggressively expanding its Stock Keeping Units (SKUs) to support its commercial teams, looking at a 500ml can format equipped with fixed-widget and nitrogen-dosing capabilities, alongside the integration of 20-litre formats on the kegging line. The brewery is also integrating advanced processing hardware, including a new hop gun from Bucher Denwel and its third high-efficiency centrifuge from Alfa Laval.

As lager production continues to accelerate, Reid has already identified future manufacturing bottlenecks. "It depends on, on where the business goes really," Reid explains. "I think if lager continues on the growth trajectory it's on then the next pinch point will be maturation and fermentation space. Phase 2 of renovations will also see improvements to the boiler house to reduce gas and water consumption, a new keg washer to raise microbiological quality standards, and potential enhancements to our malt and yeast handling."

Ultimately, Reid anticipates that the site's ongoing growth will necessitate further expansion and renovation phase 3. "But that's a conversation for another day!".

Damm's Eagle Brewery in Bedford is capable of producing up to 90.000 cans per hour (cph).

BREAKING THE BARRIERS

THE TRANSITION FROM THE STRUCTURED CORPORATE WORLD TO THE INDEPENDENT CRAFT BEER SECTOR IS A PATH WELL-TRODDEN BY MANY OF THE INDUSTRY'S MOST PASSIONATE BREWERS, BUSINESS OWNERS, AND PROFESSIONALS. FOR CATHERINE WEBBER, TAKING THAT LEAP HAS TRANSFORMED HER INTO A WIDELY RECOGNISED AND CELEBRATED FIGURE WITHIN THE UK'S VIBRANT BEER AND HOSPITALITY LANDSCAPE.

Meet Catherine Webber. She's the brand and business development manager at Attic Brew Co., the largest independent brewery in the West Midlands. Celebrating over four years with the Birmingham-based business, her trajectory from a corporate food safety specialist to an industry advocate highlights the power of grassroots community, authentic brand-building, and an unrelenting drive to make beer spaces inclusive for everyone.

Before the world of independent beer came calling, Webber spent years working in a heavily corporate environment, holding a role at Mondelez International that focused on food safety, quality, and training. However, her personal life was increasingly anchored by a deep-seated love for cask beer and an active presence at beer festivals across the UK.

"I've always been a beer drinker for as long as I've been drinking and obviously, when I first started drinking, there wasn't the kind of choice and variety that we have now. It was all cask or macro lager. And I'm not a fan of those macro lagers, but a big fan of cask.
My friend's dad was a really passionate real ale fan, a cask beer drinker, and he kind of got me into it, so that's kind of how my interest started."

Living in Birmingham since 2008 allowed Webber to witness the UK's craft beer revolution unfold firsthand. She frequented legendary local establishments like The Wellington—an absolute staple of the city's cask scene—before newer, modern craft venues began to alter the landscape. The opening of Birmingham's first BrewDog bar proved to be a pivotal eye-opener. Though the industry views that particular business through a different lens today, it introduced her to a broader spectrum of styles and connected her with passionate staff members who would go on to achieve illustrious beer careers of their own.

At the time, Webber didn't view beer as a viable career path. Instead, her education came through immersive experiences: attending tastings, volunteering at events, and tasting genre-defining beers like Thornbridge's Jaipur on cask. A turning point came when she volunteered at Northern Monk's inaugural Hop City festival nearly a decade ago, sparking her transition from a casual consumer to an industry insider eager to learn the mechanics of the trade.

For those looking to break into the brewing world, Webber consistently champions volunteering as the ultimate educational tool. "It was through volunteering at festivals and by breweries kindly opening their doors to me I would meet people like Andy Parker of Elusive Brewing and Brian Dickson from Northern Monk. To go from drinking their beers to them letting me into their world was a real pinch-me moment."

"When people often ask me, how do I learn more about beer? How did you learn about beer? I always say, try and volunteer at festivals," says Webber. "There you will hopefully meet people from the brewery, be they brewers or people like myself. There is a truly bottomless fount of knowledge that you can draw on. If the brewer is there, you can ask them about the beer and what ingredients are in it. In my experience, most people are more than happy to share their expertise."

> **Women were the first brewers. This is what we need to remember!" Catherine Webber, Attic Brew Co**

Webber's professional entry into the trade began in 2019 when she joined a small Birmingham startup called Brew Broker, which facilitated contract brewing and white-label production. Though she lacked formal industry experience, the company took a chance on her as an account manager.

Webber would then go on to join Aston Manor Cider, working for 18 months as an account manager within their large-scale contract packing team. Managing logistics for major brewers around a newly installed canning line provided her with vital operational insights. Yet, her ultimate goal remained unchanged: she wanted to work for a small, independent brewery that she truly loved. In January 2022, that opportunity materialized when she accepted a role at Attic Brew Co.

Founded by Sam Back and Oli Hurlow, Attic Brew Co. was built on a foundation of creativity, relentless hard graft, and community integration. What began as a tiny setup in a Kings Heath attic has rapidly scaled into the largest independent brewery in the West Midlands. Crucially, the business remains entirely owner-operated and self-funded.

Webber has overseen massive shifts during her tenure, particularly regarding production scale. The brewery originally produced just 800 liters per brew when the kit was situated inside their taproom. They eventually transitioned to a 30-hectoliter (3,000-liter) system, and they are currently commissioning a brand-new 50-hectoliter (5,000-liter) brewhouse.

Despite this rapid expansion, the brewery's leadership remains intensely hands-on, a a quality Webber credits for keeping the team grounded.

"The fact that Sam and Ollie are still the only owners of the business, and they're here all the time. They're not distant oligarchs doing their thing. Sam has been out in the brew house doing the fitting of the new kit, and I think seeing that from your colleagues is very grounding," she says. "We're still a relatively small team, so there's very much a team mentality that we're all trying to get things done." A major component of Attic's commercial success is its disciplined approach to its core range. While many modern breweries rely exclusively on a revolving door of experimental "hype" beers, Attic balances fun, limited releases with an unwavering commitment to dependable core lines like their flagship pale ale, Intuition. They have also solidified their lager portfolio with both a standard Pilsner and a premium Helles option to meet diverse venue requirements.

With nearly 100 permanent lines established across Birmingham and beyond, consistency is everything. "Those customers want to know that they can ring up on a Monday and get three 50-liter kegs of Intuition every week, because that's their core offer," Webber explains. This strategy serves a dual purpose: it supports the hospitality sector with reliable volume while positioning Birmingham as a prominent, proud brewing city.

Beyond her commercial responsibilities at Attic, Webber is a fierce, practical advocate for improving diversity, equity, and inclusion across the beer world. While she acknowledges that visible progress has been made with more women entering brand-facing and production roles, she emphasizes that the baseline numbers remain staggeringly low.

Citing a recent SIBA (Society of Independent Brewers) report, Webber points out that a mere 3% of UK brewers are women. To combat this imbalance, she serves on the board of Women on Tap, a community interest company dedicated to industry equity. Through their BEER 50/50 campaign, the organization actively lobbies for equal gender representation across the sector.

Webber highlights the psychological barrier that a lack of representation creates for minorities entering hospitality spaces. "If they don't see somebody who looks like them, then they're going to feel like it's not a place for them. We just need more women who are brewers to stand up and say '*look, we're here, this is something we can do, this is a space in which you're welcome*'. Beer is for everybody; it shouldn't be the preserve of a few—and apologies here, but you know, white guys with beards. Women were the first brewers. This is what we need to remember; without us, there wouldn't be any beer!"

On that, Women on Tap has introduced Beer Unlocked, an expanded bursary scheme designed to eliminate the financial barriers that prevent women from accessing professional opportunities. Recognizing that women are frequently the primary caregivers or hold lower-paid, less flexible positions, the bursary provides tangible financial support. Whether it funds travel costs to an industry event or offsets an unpaid half-day of work, the program has already successfully enabled broader attendance at initiatives like the International Women's Collaboration Brew Day.

On a local level, she has spent nine years running Brum Beer Babs, a Birmingham-based women's beer group designed to offer safe, welcoming, and judgment-free spaces for women, LGBTQ+ individuals, and non-binary people to enjoy beer together.

As 2026 progresses, Webber's schedule shows no signs of slowing down. Between managing a hectic summer festival calendar—including events like the Nottingham Craft Beer Festival—and navigating Attic's latest production upgrade, her corporate background has uniquely qualified her to assist with complex brewery operations, health and safety compliance, and facility scaling.

With the brewhouse undergoing final commissioning, the brewery is gearing up grand public opening later in the year. And for Webber, the blurring lines between her career and her personal passion remain an absolute privilege.

By keeping Attic Brew Co. firmly rooted in its local community while breaking down systemic industry barriers nationally, she continues to help reshape the fabric of British beer for the better. And as a result, the industry is all the better for it.

A NEW CHAPTER IN LINCOLNSHIRE

WHEN A LOCAL BREWERY OWNER CALLED IT A DAY THE LOCAL COMMUNITY WERE LEFT SADDENED. BUT EDWARD QUIGLEY TOOK MATTERS INTO HIS OWN HANDS AND IS NOW LEADING THIS TREASURED LINCOLNSHIRE BREWERY INTO ITS LATEST CHAPTER.

One of Lincolnshire's ongoing brewery successes sits next to Heckington railway station and below an imposing eight-sailed windmill (with accompanying shop and museum). Next to the brewery is a quaint volunteer-run tea room, opening onto a beautifully maintained garden and courtyard.

It's a lovely spot to enjoy a drink and a bite to eat, and in the spirit of Victor Kiam and his mid-1980's purchase of Remington Products (kids and those under 40, find the story online!), the 8 Sail Brewery has been purchased by a taproom regular who likes the beer so much, he bought the company!

Edward Quigley completed on the purchase of the iconic microbrewery, located within the Heckington Windmill heritage site (just east of Sleaford), from founder Tony Pygott in a deal that will see the retention of job, a much-loved community asset for over 15 years and the continued supply of award-winning beers to pubs and venues across the county, and beyond.

"The brewery has gone from strength to strength over the years, and has earned a reputation for good quality beers," says founder and outgoing owner, Tony Pygott.

"There is still a strong demand for well crafted British real ales, which the team at 8 Sail Brewery does extremely well. It's satisfying to know that the future has been secured so that the brewery can continue to supply the discerning drinkers of Lincolnshire and beyond for many years yet."

Making the taproom a regular haunt since his move to the village earned it a place in Edward's heart, and unbeknownst to him at the time, also served as time well spent in preparing him to take the reins. "I am very proud to complete the purchase of the brewery from Tony," says Edward.

"Like many of the other regulars, my heart sank when I learnt that Tony was looking to sell the business. The thought of losing the taproom, or that someone who doesn't know the business might come in and undo what Tony and the team created, filled me and many others with dread. I reached out to Tony in February 2025 to chat about the business, and fast-forward just over a year, it's now up to me to ensure the brewery continues to thrive"

No pressure then, Edward...

He continues "I'm under no illusion; it's a tough time for breweries and pubs across the UK. However, 8 Sail has a dedicated, knowledgeable and passionate team and we've shown that we can weather many storms since we launched in 2010. With our range of award-winning beers, I'm confident we can build on what Tony has done and I can't wait to be a part of the next chapter for 8 Sail Brewery.

"8 Sail Brewery employs several staff from its taproom and production premises in Heckington - Paddy Bauwens (their Head Brewer) has been brewing for 13 years and holds a Diploma in Brewing from the Chartered Institute of Brewing and Distilling, and has been working at the brewery for the last few years.

"I have been very fortunate in finding 8 Sail Brewery after moving here with my family in September 2022. I soon realised that the brewery was a fantastic place to develop my career, and somewhere that I could build on Tony's foundation."

"Tony founded the brewery with a passion for two things - good beer and community. These values are clearly

> **The brewery has gone from strength to strength and has earned a reputation for good quality beers," Tony Pygott**

8 Sail Brewery's outgoing founder Tony Pygott with new owner Edward Quigley

what has taken 8 Sail to where it is now. We will certainly strive to continue the legacy that Tony has handed over - an expansive selection of great beers and a taproom venue that the village can be proud of"

.

Kate Sydney lives locally and is one of the supporters of the brewery, as well as an active member of the Foss Dyke Brass Band, who have performed several times at 8 Sail Brewery: "It has been fantastic to draw in audiences to listen to what Foss Dyke and brass banding has to offer, and it's been 8 Sail Brewery that has given us these opportunities."

Formerly known as The Friends of Heckington Windmill, the Heckington Windmill Trust is a registered charity from whom 8 Sail Brewery rent their premises. "Heckington Windmill Trust has enjoyed an excellent relationship with Tony over the years as we have developed the Windmill project, and it has been impressive to see the range of beers, achieving growth and success in conditions which have at times been difficult for small breweries," explains Mike Hardy, one of the Trustees of the Trust, and regular patron of the taproom.

"Having the brewery on our site has been an important partnership for us, and we are committed to seeing it continue in the same positive way it has. We send our best wishes to Tony as he retires and we now look forward to working with Ed as the new owner, and wish him well in his new venture!"

Asked what customers old and new should expect from 8 Sail Brewery under his stewardship, Edward explains that it's simply a case of leaning into what the brewery already does best: "when I speak to other regulars about the taproom and what makes it special, the response is almost always the same - 'good beer, good music, good food and community'".

As for Tony, Edward and the team are delighted that he won't be going too far away as he settles into a well-earned retirement. "I look forward to watching its progress from the other side of the bar, with a pint in hand!" said Tony.

The taproom is open every day from 1200, and visitors are encouraged to visit the brewery's social media channels to find out upcoming events and visiting street-food vendors. Tours of the brewery will also soon be available to those keen to learn more about brewing.

"I'm confident we can build on what Tony did and I can't wait to be a part of the next chapter," Edward Quigley, 8 Sail Brewery

A SUSTAINABLE FUTURE IN BEER

TRANSPARENCY IN SUSTAINABILITY HAS TRANSFORMED FROM A MARKETING BUZZWORD INTO A POWERFUL DIFFERENTIATOR ON CROWDED SHELVES AND TAPROOM DRAFT LINES. AND GREEN ENERGY SOURCES ARE PROVING A GREAT PLACE TO START.

For centuries, the art of brewing has relied on a delicate balance of simple ingredients: water, grain, yeast, and hops. Yet behind every beer lies an incredibly resource-intensive process. From the rolling boil of the kettle to the continuous refrigeration required for fermentation and conditioning, brewing is fundamentally an energy game. Historically, playing this game has meant relying heavily on fossil fuels and accepting volatile utility bills as an unavoidable cost of doing business.

However, as the global energy landscape undergoes a seismic shift, the brewing industry faces a critical turning point. For modern breweries, adopting sustainable energy solutions, specifically solar power, wind energy, and carbon dioxide (CO_2) recovery, is no longer just a badge of environmental stewardship.
Today, it is a strategic imperative for long-term operational resilience and profitability. Several macro-trends are driving this green transition, chief among them being economic volatility. Fluctuating energy prices and rising overhead costs are squeezing margins in an already hyper-competitive market. By investing in on-site renewable generation like solar arrays or localized wind turbines, breweries can effectively cap their energy expenditures, insulating their operations from grid instability and unpredictable tariff hikes.

Simultaneously, the concept of the circular economy is redefining how breweries view their own footprints. Fermentation naturally produces massive amounts of CO_2, yet the vast majority of craft and regional brewers historically vented this gas into the atmosphere, only to purchase commercial CO_2 later for carbonation, purging, and packaging.

The advent of scalable CO_2 recovery systems allows breweries to capture, purify, and reuse their own manufacturing byproducts, drastically slashing supply chain dependencies while shrinking their environmental impact.

Beyond the balance sheet, consumer expectations have fundamentally evolved. Today's beverage consumers are increasingly conscious of the ecological footprint behind their favorite brands. Transparency in sustainability has transformed from a marketing buzzword into a powerful differentiator on crowded retail shelves and taproom draft lines.

"Electricity prices are now at the forefront, as rising energy costs make up a significant percentage of overheads. Recent events have brought the risks of grid reliance into sharp relief," says Ed Lennon, commercial manager at CleanEarth Energy, "Market dominance from global brewers puts constant pressure on independents, and the additional strain of volatile operational costs compounds that impact. The industry across Europe is feeling these challenges, and here in the UK businesses are already subject to some of the highest wholesale electricity prices in the developed world.

These energy prices have been jumping around considerably across the last several years but have never returned to pre-2022 levels. For CleanEarth client Healey's Cyder Farm, their energy bill had tripled. As Joe Healey, joint-MD put it, "The catalyst [for solar] really was the energy spike. We wanted to maximise every square inch of every roof available."

Their installation spans three rooftops to get as much low-carbon low-cost electricity to their production line as possible – 510,000kWh annually. Ultimately, their solar PV will save £3m off their rising energy bill, starting from £130,000 per annum.
And they're not the only brewers to go down the solar route. CleanEarth Energy have worked with 15 independent breweries across the UK with more

> **Renewable energy is a more vital piece of the sustainability puzzle than ever," Ed Lennon, CleanEarth Energy**

From top: Solar installations at Bluntrock, Dartmoor Brewery, Ludlow and Healey's

projects currently in development. Breweries like Wiper and True, Ludlow Brewing Co, Verdant Brewing Co, Bluntrock Brewery, and more are achieving an average of 37% self-sufficiency, generating a combined 54.32 MW of annual clean electricity across their sites. These breweries combined have consumed 521 MW of self-generated electricity since CleanEarth's first brewery project.

Lennon outlines that alectricity prices and the rate of return on solar were among the catalysts these brewers cited for going solar.
Electricity prices are still tied closely to gas, and with recent global conflicts it's become clearer than ever that dependence on the wholesale fossil fuel market is inherently risky. Solar PV dramatically reduces the cost of electricity and alleviates that grid reliance.
He tells us: "While these energy cost reductions are vital to support brewers in managing growing operational costs, they also come with key carbon reductions. Even as operational costs and competitive concerns demand attention, the pressure remains from consumers and buyers to see supply chains decarbonised.

"Healey's solar PV system is saving over 97 tonnes of CO_2e emissions each year, with an annual total of over 1,914 tonnes of CO_2e being saved across just a few of CleanEarth's other brewery projects. With the UK's binding targets and SIBA's own three-staged approach to net zero, renewable energy is a meaningful avenue for independent brewers to contribute to net zero."

Crucially, these initiatives don't need to break the bank. Considering the financial context surrounding breweries, the solutions to energy bills are often assumed to be priced out of reach themselves. But there are numerous routes to financing solar; from grants to asset finance and PPAs.
Lennon adds that colar can also be extended from smaller systems to larger installations over time, as the use case becomes even clearer and additional resources become available.
"With the turbulent cost of energy sitting as the top challenge for independent breweries, renewable energy is a more vital piece of the sustainability puzzle than ever; impactful carbon reductions that come with energy cost savings and protection from grid reliance, providing much needed relief," he concludes.

Are question posed to the industry is hoow wasted wind can help the brewing industry, that largely relies on natural gas and oil for heat. decarbonise

The answer isn't straightforward, as Stuart Reid, head of customer solutions at AMP explains. "This is because a significant proportion of the sector's emissions are a result of the high amount of energy needed for the brewing process," he says. "Therefore, meeting significant energy demand with renewable alternatives to gas and oil at industrial scale, without significant risk or CAPEX, has historically been a critical technical barrier."

According to Reid, in addition, when it comes to making progress to lower emissions, brewers also need to look beyond Scope 1 and 2 consider their Scope 3 emissions - the indirect emissions generated throughout their supply chain - such as during the malting process. That is why successful heat decarbonisation will require big, bold ideas that can easily be turned into reality.

If you run a fermentation tank, you are already sitting on your own supply. We're just here to help you catch it safely," Jemima Bruin-Bland, founder of Cork & Capture

One example, Reid says, is looking at how 'wasted wind' - excess wind power that is effectively lost when energy generators are paid to turn off due to lack of demand or insufficient grid capacity - can be used to decarbonise industrial heat. An issue that regularly hits the headlines, wasted wind is a particular challenge along the B6 Boundary, which is the physical boundary between the Scottish and English electricity transmission networks and broadly follows the Scotland-England border.

"It is a major bottleneck as it limits the flow of wind power generated in Scotland to where it is needed in England, resulting in high curtailment costs. It also happens to be where Simpsons Malt Limited - one of the largest independent, family-owned malting companies in the world - is headquartered," he says.

Its Tweed Valley Maltings is the largest malting site in the UK and has the capacity to produce around 260,000 tonnes of malt per year. As an energy intensive company - the process of turning barley into malt typically uses fossil fuels that emit many thousands of tonnes of CO_2 each year - Simpsons Malt wanted to find a new way to decarbonise its malting process and cut its reliance on fossil fuels.

In addition, as the malt made at the Tweed Valley Maltings site is destined for the brewing and distilling industries, any emissions reduction would not just positively impact Simpsons Malt. It would also have an impact on its wider community, supply chain and client base, helping brewers and distillers to reduce their Scope 3 emissions.

Reid explains that a ground-breaking energy centre, which was developed, funded and is operated by AMP, that dramatically reduces carbon emissions from heat, reinvents energy storage and harnesses the power of wasted wind energy.

He outlines: "The energy centre was designed to transition the site to sustainable energy sources, tackle local grid constraints by making use of otherwise-curtailed renewable electricity, and maintain the high product quality and operational efficiency that Simpsons Malt is known for.

"It uses a state-of-the-art, high-voltage 12MW electrode boiler, which is powered by curtailed wind energy, and three 6MW biomass boilers fuelled by locally-sourced, low-grade woodchip".

Described as a trailblazing project, it provides a highly effective way to decarbonise industrial heat, as well as reducing compensation payments to wind energy generators by using energy that would have otherwise been wasted. It also reinvents biomass as an effective long duration store of energy sourced from forest, urban and sawmill residues, which is readily available to use during periods of low wind curtailment.
For Simpsons Malt, the impact of the energy centre will see more than 140GWh of fossil fuels displaced, 25,000 tonnes of CO_2 saved each year and a reduction of carbon emissions at the site by 72%.

And in Kent, a zero-upfront-cost subscription model designed to stop independent drinks producers from wasting their own fermentation gas, creating a brand-new local recycling network that cuts bills from day one, has been launched.

Cork & Capture has launched a service that is said to provide reliable, subscription-based carbon recycling solutions designed specifically for independent wineries, breweries, cider and ethanol makers. Founded by a carbon capture and storage (CCS) industry expert with a track record at global enterprises, the new company pairs heavy-duty, state-of-the-art recovery hardware with a local sharing network to help drinks producers eliminate purchased CO_2, shield themselves from market shortages, and build a truly circular, local CO_2 economy.

Offered as a simple monthly subscription that costs less than standard commercial gas bills, the service gives independent drinks producers CO_2 independence, with zero upfront hardware costs (zero capex).The capture and purification systems connect smoothly to existing fermentation tanks, taking the raw gas and putting it through a dependable, multi-stage purification process.

The system cools, dries, compresses, and liquefies the gas, transforming it into 99.99% pure, beverage-grade liquid CO_2. It is fed straight into on-site storage tanks, completely ready for cellaring, purging, or bottling.

Jemima Bruin-Bland, founder of Cork & Capture says: "We set out to build a solution that makes absolute sense for the business owner. It had to be rock-solid reliable, it had to cost less than what they are paying right now, and it had to be completely hassle-free. If you run a fermentation tank, you are already sitting on your own supply. We're just here to help you catch it safely."

SUSTAINABLE SHOWCASE

WHETHER IT'S SOLAR SOLUTIONS, CO2 RECOVERY, HEAT PUMP INSTALLATIONS OR WIND. THERE ARE A RAFT OF SUSTAINABLE ENERGY OFFERINGS AT YOUR FINGERTIPS TO IMPROVE YOUR BUSINESS.

.From 100% renewable electricity and greener gas to solar, battery, EV charger and heat pump installations, Good Energy will help you take charge of your home's energy. Looking for the best green energy tariffs in the UK? Good Energy is confident in saying that their Standard Variable and Fixed tariffs are among the greenest energy supply in Britain – and they've got the awards to prove it.
Each award comes from a different, independently trusted consumer choice service – from B Corp to Uswitch to Which? – so you don't just have to take their word for it. Everything you need to cut your carbon, save at home, and start breaking free from volatile fossil fuels. 100% British-made renewable electricity from independent producers. That's Good Energy.

At CleanEarth they believe it is now obvious that the adoption of carbon-free energy generation is a necessity if they want to minimise the consequences of global warming for future generations. The good news is that the commercial arguments for investing in renewable energy are becoming more compelling as every year passes.

Pressures from energy prices, carbon targets, corporate conscience, and consumer and investor sentiment are all driving rapid technological advances while also becoming aligned with what makes most financial sense for UK business. At the heart of this is the distributed generation of power from renewable sources. They work with businesses to find the solutions that meet their energy needs, their financial demands, and their environmental responsibilities.

And Ed Lennon is the commercial manager at CleanEarth Energy. Based in Cornwall, Ed has close ties to the brewing industry and has worked with nearly 20 breweries across the UK. He's provided solar solutions to Wiper and True, Ludlow Brewing Co, and Verdant Brewing Co to name a few and he takes personal pride in guiding clients through every step of the solar journey.

Energy Oasis is a leading choice for renewable energy solutions and energy efficiency expertise across the UK. Based in Harrogate, North Yorkshire, their mission is simple - to help businesses, organisations and communities cut energy consumption, costs and carbon, to create an Energy Oasis.

Founded in 2013 by Mike Kaye, Energy Oasis began with a vision to transform the way energy is consumed in the UK. A bottom-up approach to Net Zero where the power is in the hands of the people that rely on the energy. 11 years later, that vision is becoming a reality as they deliver innovative and comprehensive energy solutions nationwide. They believe that everyone should benefit from a smarter, greener energy strategy—whether you're a small business, a large organisation, or a community group.

Based in Wye, Kent, Cork & Capture Ltd provides reliable, subscription-based carbon recycling solutions designed specifically for independent wineries, breweries, cider and ethanol makers. Founded by a carbon capture and storage (CCS) industry expert with a track record at global enterprises, Cork & Capture pairs heavy-duty, state-of-the-art recovery hardware with a local sharing network to help drinks producers eliminate purchased CO2, shield themselves from market shortages, and build a truly circular, local CO2 economy.
With thousands of producers worldwide looking for a buffer against unstable industrial supply chains, Cork & Capture's UK launch marks a friendly, common-sense revolution for sustainable, cost-effective beverage manufacturing.

Dalum Beverage Equipment manufactures advanced and affordable, ressource and cost-saving process equipment for craft breweries and beverage manufactures to become self sufficient with CO2, and become more sustainable. At Dalum they strongly believe in customer insight and innovation as means to achieve this mission.

By developing new products, like the Dalum CO2 Recovery Plant, they contribute to a more efficient and environmentally friendly use of our planet's resources to benefit your business and future generations. They "speak engineering and brewing". Dalum strives to achieve our customer's goals through field knowledge, innovation, and outstanding service. They aim to deliver excellence at every step and establish relations that create peak results. Dalum's mission is to offer advanced, affordable and sustainable process equipment for craft breweries, and other producers of alcoholic beverages. By focusing on resource saving and cost efficiency and by prioritizing customer insight and innovation, Dalum strives to make their customers more sustainable.

YEAST INNOVATIONS

SUSTAINABLE PRINT AND PACKAGING HELP BEER PRODUCERS REDUCE IMPACT, MEET CUSTOMER EXPECTATIONS, MANAGE RISK, AND BUILD STRONGER, FUTURE-READY BRANDS. HERE ARE TRENDS AND TECHNOLOGIES HELPING DRIVE THAT EVOLUTION.

The modern brewing landscape demands far more from yeast than traditional fermentation ever required. Today's commercial brewers operate in a hyper-competitive market characterized by shifting consumer preferences, fluctuating input costs, and a constant demand for novelty. In this climate, relying solely on legacy, off-the-shelf yeast strains can limit a brewery's potential.

Innovation in the yeast sector is taking place at an exciting pace. Established names, coupled with newer outfits,have a raft of solutions on offer. Brewers are no longer just looking for healthy fermentations; they are searching for specialized performance, distinct sensory differentiation, and operational efficiency.

This demand has sparked a modern golden age of brewing microbiology. Driven by breakthroughs in non-GMO hybridization, targeted gene mapping, and the isolation of wild, resilient strains, yeast providers are engineering solutions tailored specifically to 21st-century brewing challenges.

The industry is witnessing the rise of thiolized yeasts that unlock hidden tropical aromas from hops and malt, co-fermenting variants that streamline production timelines, and highly specialized strains designed to master the complex chemistry of low-calorie and non-alcoholic beers without sacrificing mouthfeel. Furthermore, innovation in this space is directly answering the call for brewhouse efficiency. Strains optimized for higher alcohol tolerance, faster flocculation, and predictable attenuation allow breweries to maximize tank turnaround times and reduce energy expenditures in the cellar.

At Fermentis by Lesaffre, with the world of no- and low-alcohol (NOLO) beer production expanding, the company recently announced the launch of their latest active dry yeast for NOLO: SafBrew LA-02. This solution is the first Torulaspora delbrueckii strain for beer. SafBrew LA-02 is a solution designed for craft and industrial brewers looking to develop or expand their NOLO range without the need for specialized dealcoholization equipment.
A maltose-negative strain, SafBrew LA-02 only ferments simple sugars, allowing brewers to achieve very low apparent attenuation and limit alcohol production.

> **SafBrew LA-02 was added to our portfolio to diversify our range for NOLO beer," Philippe Janssens, Fermentis**

A POF-negative strain, SafBrew LA-02 has a neutral and non-phenolic profile, making it ideal for creating a wide range of beer styles. According to the company, pilot trials have shown that SafBrew LA-02 may produce more pronounced malt and honey notes, as well as a sweeter profile compared to SafBrew LA-01, though it's important to note that the sensory profile of both strains may differ depending on the wort composition and fermentation conditions.

Philippe Janssens, R&D technical manager at Fermentis, says: "SafBrew LA-02 was added to our portfolio to complement SafBrew LA-01 and diversify our range for NOLO beer. SafBrew LA-02 was selected for its ability to produce delicate sensory characteristics, with no risk of unwanted phenolic (spicy or clove-like) notes." With the NOLO beer market growing, Fermentis says SafBrew LA-02 is an exciting new tool for brewers wanting to produce great-tasting NOLO offerings for their customers.

Late last year Lallemand Brewing announced the are excited to announce the release of LalBrew House Ale, described as a yeast strain that sets a new benchmark in brewing performance. LalBrew House Ale was selected by Escarpment Labs (ON, Canada) using selection criteria focused on identifying a strain that combines superior fermentation capabilities and brewers' preference input in real world brewing environments.

And in 2026, Matt Cummings of Equals Brewing Company in London, Ontario outlined how selecting a yeast strain is a critical decision when determining throughput and production capacity

He put two yeast strains to the test to compare performance: A popular dry ale strain (House Strain X) and the LalBrew House Ale. The brewer took a scientific approach, and the results showed opportunities for enhancing fermentation efficiency and improving cost savings — with no drawbacks in yeast performance, beer quality or flavor.

The test used two controlled fermentation tanks at a consistent temperature of 18-20°C. Wort types varied but ranged in original gravity from 11-14°P. Key metrics such as original gravity, final gravity, attenuation, pH, and yeast viability were measured using industry-standard equipment.

Results show the LalBrew House Ale significantly reduced fermentation time compared to House Strain X with the "Days to Crash" (the time for fermentation to complete and clean up diacetyl, acetaldehyde.) reduced by 23% with the LalBrew House Ale yeast (6.9 days compared to 8.9 days with House Strain X). But what does this mean for day-to-day brewing processes? Reducing fermentation time results in quicker tank turnover, allows breweries to increase production capacity without purchasing additional equipment or renting more space. In addition, breweries can produce more beer with less energy and fewer employee hours.

> **The LalBrew House Ale yeast reduced the "Days to Crash" by 23% compared to House Strain X," Lallemand Brewing**

The comparison also evaluated yeast performance and demonstrated that the LalBrew House Ale yeast had an 85% increase in crop cell density with 434 million cells per millilitre compared to 235 million for House Strain X, demonstrating more robust cell growth and fermentation.
Sure, but how does it taste? Sensory analysis showed no detrimental effects on the flavor profile of the LalBrew House Ale beer. Some tasters noted a slightly enhanced fruity ester profile, which is desirable in many beer styles. In a previous comparison, the brewery found the LalBrew House Ale produced nearly 4 times lower diacetyl in the finished beer.

Throughout the last year, White Labs and The Yeast Bay worked together to design, build, and validate a new set of bioengineered yeast strains. They set out to engineer their most popular yeast cultures to eliminate one of the most notable off-flavors in brewing: diacetyl. Nick Impellitteri, founder of The Yeast Bay, explains: "Considered an off-flavour in practically every modern style of beer, diacetyl can take considerable time to clean up naturally. This extended "rest" period is valuable time that eats into cold-side productivity, increasing tank residency time and lowering fermentation throughput."

The new ModiGenD yeast strains are genetically enhanced to express integrated a-acetolactate decarboxylase (ALDC). Unlike adding soluble ALDC enzyme, ModiGenD technology prevents the a-acetolactate secretion that drives diacetyl formation. They are designed to make your fermentation process easier, faster, and higher throughput.

While a-acetolactate is a precursor to diacetyl formation when secreted into fermenting beer, it's also a critical precursor inside the cell for the synthesis of two amino acids.
Excessive ALDC production inside the cell, above what is required to prevent -acetolactate secretion, depletes the intracellular -acetolactate levels to the point that cells cannot effectively produce valine or leucine on their own. Once cells no longer have access to a nutrient-rich media (i.e. during flocculation, harvesting and storage), the inability of cells to synthesize all amino acids dramatically affects cell health and the ability to reuse yeast.

"We found it only takes a certain level of ALDC gene integration inside the cell to achieve effective diacetyl prevention," outlines Impellitteri. "A more classical, slower approach to integrating the ALDC gene into ModiGenD strains yielded better control over the number of ALDC genes inserted into the yeast genome and, consequently, the amount of enzyme produced.
"By controlling the levels of ALDC produced, we've shown that these ModiGenD strains can reliably prevent diacetyl production without significantly impacting yeast health or repitchability."

The ModiGenD strains ere been put through their performance paces to ensure brewers are receiving the same high-quality yeast they've come to expect from White Labs: Test fermentations validates ModiGenD strains significantly prevent diacetyl formation as compared to parent strains (including in beers dry hopped at 2.2 lbs/bbl), while exhibiting similar fermentation kinetics and yeast character. Harvest and reuse assays validates ModiGenD strains can be harvested, stored, and reused, maintaining consistent fermentation kinetics and diacetyl prevention.

Serial growth assays validates consistent diacetyl prevention even after 50 generations (cell divisions), ensuring that brewers can reliably reuse ModiGenD strains with consistent diacetyl reduction. PurePitch next generation viability assays – validates the viability of ModiGenD strains over time is comparable to parent strains.

When Wasted Degrees switched to multi-strain kveik yeast, they didn't just change their fermentation profile — they cut their dry hop rate, improved their yield, and ended up with a better beer. There is a moment in many breweries when a process that has always worked begins to feel like it could work better. For Conall and Jack Low, the brothers behind Wasted Degrees in Perthshire, Scotland, that moment arrived not in the brewhouse but at a bar at SIBA's Beer X in 2025, when two Norwegians appeared with a backpack full of yeast. "Not really what we were expecting," admits Jack.

But the encounter proved consequential. Wasted Degrees had just won best IPA in Scotland, and the conversation that followed set in motion a series of changes to how they ferment their flagship 5.9% hazy IPA — changes that have since delivered a 30% reduction in hop usage, a 7% increase in total packaged volume, and, by their own account, a better-tasting beer. From hop-forward to flavour-focused

Before the switch, Wasted Degrees ran a conventional fermentation profile for a modern hazy IPA. The yeast of choice was London Fog from various suppliers, pitched at 18°C with a free rise to 22°C. Fermentation ran six to seven days, with a fresh pitch of dry yeast each batch. The hop bill was built for intensity: on the hot side, El Dorado at 2.5 g/L 10 minutes from the end of boil, and 2.5 g/L added at whirlpool, targeting a smooth, low-IBU profile.

On the cold side, a single dry hop addition of 12 g/L of Mosaic and Azacca was dosed on day three during active fermentation. "A shift in mindset and taking a step back to think about what we were trying to achieve led us to kveik," Jack explains.
Three aims were identified for the reformulated IPA: flavour, cost economies, and yield. The team had grown concerned that escalating hop rates were adding cost that would need to be passed on to the consumer, while also risking hop-burn. There was also a yield consideration: high solids loadings in-tank translate directly into beer losses.

The underlying question was whether yeast could contribute more of the aroma work that hops had been doing, and whether a reduction in hop rate could follow as a result. Fermentation protocol For the reformulated recipe, Wasted Degrees selected two strains from Kveik Yeastery, a Norwegian supplier specialising in dried multi-strain Kveik, running K.1 Voss and K.22 Stalljen in combination. Two 300g packs were co-pitched into a 16hl batch, giving a combined pitch rate appropriate for the vessel size. Fermentation was set at 36°C with a free rise to 40°C, conducted at atmospheric pressure in a DPV with an airlock. Antifoam was used both in-tank and in the airlock.

The grist composition (pale, wheat, dextrin, Vienna), water profile (2:1 chloride-to-sulphate ratio), and hop varieties were the same to limit changes to get a good understanding of what the yeast could offer. The revised hop schedule reflected two adjustments. On the hot side/ whirlpool, the El Dorado rate was reduced from 5g/L to 2.5g/L.

Wasted Degrees is a multi-award-winning brewery owned and operated by brothers Conall and Jack Low, based in Perthshire, Scotland

The rationale was fermentation kinetics: kveik ferments rapidly and vigorously, and the team observed that the aggressive CO_2 evolution during early fermentation risked stripping volatile hop aromatics contributed on the hot side. Reducing the hot-side rate was therefore a deliberate response to the changed fermentation behaviour rather than a simple cost saving.

On the cold side, the dry hop addition was reduced from 12g/L to 8g/L, and the timing was shifted. Rather than dosing during active fermentation on day three, the team waited until fermentation was complete before dropping the tank temperature to 22°C and dry hopping. Pellets were added through the top manway and mixed by briefly bubbling CO_2 through the carb stone at 2L/min.

The decision to dry hop post-fermentation, rather than mid-fermentation as previously, is technically significant: dry hopping during active fermentation that introduces biotransformation potential — where yeast enzymes can modify hop compounds — but also increases the risk of aroma loss through CO_2 scrubbing. Post-fermentation dry hopping preserves more of the added hop character in the finished beer, though it foregoes biotransformation. The shift in timing, combined with the lower rate, meant they were relying more heavily on the yeast itself to generate aroma.

They experienced significantly reduced lag time, and fermentation was underway within one hour of pitching. The batch attenuated to 78% and was complete within three days. "The aroma on day one walking back into the brewery was phenomenal," Jack says. "A range of citrus fruits through to peach and apricot, and this was with significantly fewer hot-side hops than we would typically add to a NEIPA, or even our Pilsner."
The ester profile observed, citrus, peach and apricot, is consistent with the known characteristics of both Voss (orange, tangerine, citrus) and Stalljen (tropical fruit, mango, pineapple), suggesting the yeast was contributing substantially to the aroma development that had previously been driven primarily by hop additions.

The finished beer performed well on sensory evaluation. "The flavour profile is equally as intense in taste and aroma yet presents as more integrated rather than layered," Jack reports. "It made for a smoother drinking experience, with no distractions of upfront or volatile tasting notes subsiding over time."
The absence of the "layered" quality they describe is consistent with a reduction in dry hop rate: very high dry hop additions can produce a pronounced, sometimes sharp hop character that dominates early in the glass and fades. A lower rate, combined with yeast-derived esters, may produce a more unified aroma profile.

Process metrics were equally encouraging. Total hop usage was reduced by 30% between otherwise identical batches of the same recipe. Total packaged volume increased by 7%, attributable to lower beer losses from reduced solids in-tank — a direct consequence of the lower dry hop rate. Jack also notes that further gains may be achievable: "The potential could be greater subject to managing fermentation temperatures and other associated variables." The brewery also highlights supply chain resilience as a factor worth considering. "Sourcing a core, flavour-driving ingredient from a non-volatile and geographically nearby source reduces risk in supply chain reliability," they say, a consideration that has become increasingly relevant given hop market volatility in recent years.

For brewers considering a similar approach, the Wasted Degrees experience suggests that the relationship between yeast selection and hop rate is worth examining more deliberately. "Whether you have a challenge with shipment cost, storage capacity, or losses and inefficiencies from solids in-tank, the benefits are clear and multifaceted," Jack concludes.

INNOVATION SHOWCASE

WHEN IT COMES TO FERMENTATION THERE IS NO ONE SIZE FITS ALL APPROACH. THANKFULLY THERE IS A WEALTH OF DIFFERENT SUPPLIER AND SOLUTIONS TO CATER FOR YOUR BREWING NEEDS.

A key global player in fermentation for more than a century, Lesaffre has a presence across the globe employs 11,000 employees and 100 nationalities. On the strength of this experience and diversity, they work with customers, partners and researchers to find ever more relevant answers to the needs of food, health, naturalness and respect for our environment.

They believe that fermentation is one of the most promising answers to this challenge. Their beer yeast strain line-up is designed to answer the requirements of all brewers, regardless of their size and location. They are always looking to improve their range, with new products added every year based on the needs of the market.

Supported by decades of long-standing industry experience, an extensive support network, and strong technical expertise, Lallemand Brewing is positioned to help your brewery achieve its growth and quality goals. Beyond unparalleled global technical support and expertise, they offer an extensive range of products, services, and education. Whether you are a startup, a global leader in beer production, or anywhere in between, they have something for you. *At Lallemand Brewing...We Brew With You™ !*

Lallemand Brewing currently offers three distinctive lines of products and services, grouped under a different set of brands. Lallemand's premium brewing yeast and bacteria offers brewers unmatched consistency, reliability, and purity from one batch of beer to the next one, allowing them to take full control of the brewing process, exercise their full creativity and obtain the exact aromatic and flavor qualities they want. The Siebel Institute of Technology has been dedicated to the enduring pursuit of brewing excellence since 1872. While AB Vickers is a global leader in the field of brewing process aids and brewing services. Based in Burton upon Trent, United Kingdom, AB Vickers supplies a comprehensive portfolio of traditional and innovative processing aids, enzymes, and yeast nutrients.

The technology developed by Yeastime is rooted in a study in the field of bioacoustics, a multidisciplinary discipline that integrates physics and biology to explore and understand evolution through the consideration of mechanical pressure as a stationary factor. In the bibliography, robust evidence emerges indicating the potential of low-power mechanical pressure in stimulating cell biology. This occurs through the effect on nutrient uptake by transient sonication of the cell wall and membrane, with simultaneous removal of inhibitory metabolites from the cell surface. Building on the study and testing of higher plant responses, Yeastime chose to focus on the "microworld," initiating an in-depth study of the biology of the yeast Saccharomyces cerevisae. This model organism not only plays a key role in food production for the production of consumable products, but is also a target for oil, protein and enzyme production.

Enzyferm was founded by Øystein, Siavash and Leif. A group of founders with a diverse background coming together to change the way we ferment today. They operate a state of the art laboratory at the Oslo Science Park. They are on a mission to transform traditional fermentation with proprietary multi-strain technology that cuts production time and cost, reduces CO_2 impact, and enhances flavor across beer, spirits, food, and other fermented products. Their approach to fermentation utilizes multiple dimensions in our fermentation ecosystem. They use yeast with different strains (variants) allowing us to ferment with different capabilities at the same time. They can also use different yeast species during fermentation, adding additional complexity and attributes. Lastly, they use different organisms like bacteria or non-yeast fungi. Visualization Multi-strain fermentation This diversity in multi-strain fermentation allows them to solve multiple issues simultaneously, like stress, complex sugar metabolism, esters and aroma profiles, or propagation.

NCYC - The National Collection of Yeast Cultures (NCYC) is one of the world's leading microbial resource centres, supporting brewers with high-quality yeast strains and expert storage services. With decades of experience in yeast preservation, propagation, and quality control, NCYC provides reliable brewing cultures for breweries of all sizes. From traditional ale and lager strains to Kveik cultures, NCYC helps brewers achieve consistency, character, and performance in every brew through trusted science and industry expertise. It originated as a brewing collection and host over 600 brewing strains. It now specialises in commercial yeast services, catering to the storage, identification, and supply needs of companies worldwide. At NCYC, we're committed to yeast management, ensuring quality, security, and confidentiality for their clients.

The Malt Miller was established in 2010 by Rob Neale, driven by his discovery of the joy of homebrewing beer. Rob's passion for brewing the best beer at home and sourcing the finest ingredients directly from suppliers led to the founding of the business.

This passion for freshness and high-quality ingredients, along with a commitment to serving the creative and enthusiastic homebrewing community, are the cornerstones of the business today. They continuously seek out the best items to stock, provide insightful and educational content, and ensure timely delivery of orders. As a business that prioritises people—both customers and team members—we want to give you a little insight into the awesome people behind each and every order you place. And brewing yeast, as we know, is where fermentation starts, and where flavour gets its personality. Whether you're chasing a clean lager, an expressive ale, or a fast kveik ferment, you'll find a deep range of dry yeast, liquid yeast and Brewlab Yeast Slopes here at The Malt Miller. They order from multiple labs worldwide on a regular basis and store everything in our cold store to keep it in the best condition possible.

What began as home brewers searching for higher quality yeast, quickly grew into a team of dedicated biochemists exploring new ways to advance brewing altogether. Today, White Labs stands at the intersection of science, education and craft. Constantly striving for perfection, and in the process continually raising the bar in the art of fermentation. Every day, they set out on a single mission: To stretch the limits of science in order to set new standards in purity and freshness. From the industry's first pitchable liquid yeast to a complete revolution in the way it's propagated and packaged, our innovative spirit is tireless. And their belief that creating the best, most environmentally friendly products goes hand-in-hand with making the best use of them, has inspired a culture of education and collaboration with brewers, distillers and winemakers the world over. White Labs is committed to furthering the art of fermentation across the globe. They operate yeast production facilities in San Diego, California; Asheville, North Carolina and Copenhagen, Denmark and a distribution warehouse in Hong Kong. White Labs Brewing Company operates our San Diego Tasting Room, and a full-service restaurant in Asheville - White Labs Kitchen & Tap. White Labs. Advancing fermentation. Cultivating community.

Crafting a top-notch beer needs harmonious blend of art and science, where every single detail counts. At AEB, they delve deep into the chemistry of brewing, recognizing that experience, knowledge, and a touch of creativity are the very heartbeats of exceptional beer. They don't just supply ingredients. They are your brewing partners, walking alongside you from the initial idea to the last step. Need the perfect brewing yeast to elevate the flavour profile of your beers? Are you looking for brewing enzymes that unlock new dimensions of taste or to brew in a sustainable way? Seeking fining aids to achieve crystal-clear beer clarity? Are you looking for products for beer stabilization? Or antioxidants? We've got you covered. Their commitment is to empower you to brew with unparalleled excellence. From the brewhouse to the packaging line, they stand by your side, ensuring every aspect of your brewing journey is infused with expertise, innovation, and a shared love for the craft.

WHC Lab is a Biotechnology business focused on the brewing/distilling industry, established in 2017. The laboratory boasts best in class laboratory equipment, experts in the brewing and distilling industry and uses next-generation methods to grow brewing/distilling yeast and bacteria. A full range of liquid and dried yeast is available for professional breweries and home brewers alike. They provide an selection of analysis services, available for all customers trying to maintain a high quality and consistent final product.

Their R&D lab is home to industry-leading equipment including our Anton Paar Alcolyzer and density meter as well as QPCR for genetic analysis. Their services offer a large selection of tests including microanalysis PH, IBU, ABV, Congeners, calories, final gravity, colour (EBC) and water/gluten testing. WHC Lab is proud to propagate fresh, high cell count and quality yeasts. They do so by propagating fresh for orders and integrating stringent quality control throughout their production process.

Brewlab offers a range of services to the brewing and beverage industry. They offer a range of specialist training courses for those trying brewing for the first time through to professional brewers looking to keep their skills and knowledge up to date. Their expert laboratory services help breweries save time and money, optimising quality control processes, reducing risk, and supporting new product development. Once your yeast is stored with Brewlab, we will be able to culture to production volumes for replacement on demand. They maintain a working culture for direct inoculation and subsequently scale up to provide direct pitching to larger volumes or for further culturing on-site. All of their cultures are maintained at a constant temperature to maximise productivity and viability in 100P wort and tested for purity before release.

THE MODERN DIGITAL BREWERY

BREWERY MANAGEMENT SOFTWARE (BMS) IS NO LONGER A LUXURY TOOL RESERVED FOR CORPORATE REGIONAL GIANTS; IT HAS BECOME THE VITAL CENTRAL NERVOUS SYSTEM OF ANY RESILIENT COMMERCIAL ENTERPRISE.

Behind every great pint is a mountain of paperwork, a complex web of inventory tracking, rigid regulatory compliance, and a razor-thin margin for error. For decades, the industry got by on a patchwork of dry-erase boards, disconnected spreadsheets, and sheer willpower.

Today, however, the commercial beverage landscape moves far too fast for analogue or siloed systems. As breweries face rising raw material costs, unpredictable supply chains, and fierce market competition, operational efficiency has become the ultimate differentiator. In this hyper-competitive environment, Brewery Management Software (BMS) is no longer a luxury tool reserved for corporate regional giants; it has become the vital central nervous system of any resilient commercial enterprise.

Yet, just as beer styles and consumer preferences evolve, the software that supports the industry cannot remain stagnant. Innovation in the software space has rapidly transitioned from basic record-keeping into a dynamic frontier of predictive, integrated technology. Legacy software that merely counted grain bags or logged static batch numbers is giving way to intelligent platforms designed to bridge the gap between the cellar floor and the executive boardroom.

True innovation in modern brewery software is defined by holistic integration and real-time visibility. Today's cutting-edge platforms pull data seamlessly from every corner of the business. They connect automated brewhouse telemetry and fermentation tracking directly to raw material inventory, dynamic sales pipelines, and accounting suites. This end-to-end connectivity means a brewery operator can see precisely how a minor temperature fluctuation or a delay in a fermentation tank impacts a distributor's order fulfillment three weeks down the line—while simultaneously calculating the exact cost-per-pint of that shift.

In a mature market where the difference between profitability and loss is measured in fractions of a percent, operational guesswork is a critical liability. Thankfully pioneering software developers are pushing the boundaries of what brewery management tools can achieve. And by embracing these digital innovations, forward-thinking breweries are breaking down operational silos, optimizing their supply chains, and building data-driven businesses primed for long-term success.

Jacob Mitchell is the founder of FermentIQ (*opposite bottom right*), an AI-native brewery management platform built for independent craft breweries. As a brewer at Thompson Brewing Company in Riverside, CA, Mitchell started building the platform internally at Thompson to solve real operational problems. But the platform has since grown into a full SaaS product with modules that cover everything from production tracking to TTB compliance to financials.
Mitchell says most brewery software either handles the technical/production side or the business side well, but not both, and most only serve beer.

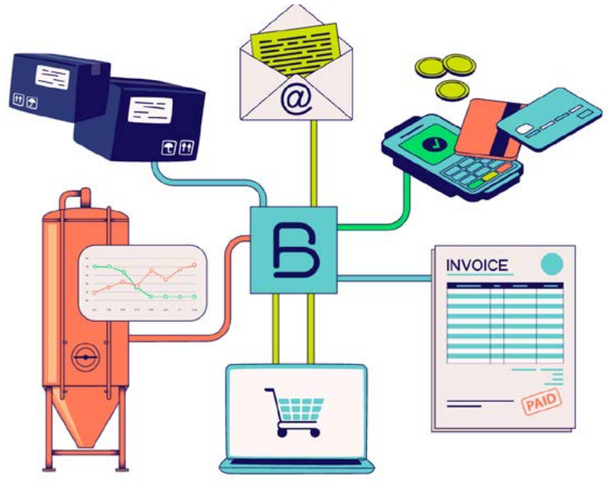
"FermentIQ was built from my experience running breweries and big box retails stores to do both, and to work across verticals, while staying simple enough for someone on the production floor or in the field to actually use, not just back-office tech support staff," he explains,

"We also built AI directly into the platform rather than bolting it on, so managers get forecasting and decision support without needing a data team, the production team gets voice logging, batch data and trends/predictions without having to sit at a computer, and sales teams get instant access to account details and voice logging of notes, along with sales support and recommendations."

The 5th Ingredient is a another name brewery management technology, and they recently announced its full evolution from a single software solution into a comprehensive ecosystem designed to support every aspect of brewery operations. Built around four core pillars of data, education, community, and innovation, The 5th Ingredient delivers an interconnected suite of tools, resources, and programs that empower breweries to run smarter, more efficient, and more profitable businesses.

While its popular Beer30 remains the core product, The 5th Ingredient's full ecosystem now extends far beyond a single platform. It brings together a diverse array of critical solutions and services, including Beer30 Lite, Bucha30, The Beer30 Marketplace, their exclusive Pinty AI Assistant, and a Beer30 Legends Forum community initiative, all working together to "support breweries from grain to glass and beyond".

"Breweries today need more than just software. They need a true partner across their entire operations," explains Pulkit K. Agrawal, the company's founder and CEO. "The 5th Ingredient is that partner. We've built an ecosystem that not only manages your data, but helps you learn, connect, save money, and innovate in ways that simply weren't possible for breweries before."



And in Cheltenham, Elliot Sutherland is the production manager at Deya. The brewery has been using Breww (*right*) for little over a year now.
"I'm in charge of setting up the day-to-day schedule, the brew schedule and packaging schedule. We use Breww for all of that," he says.
"The way we schedule it is we set out our schedule two months in advance, so we decide on what beers we're going to brew. Off the back of that we create recipes, and in Breww create the beer name, create the products, and schedule everything using the batch scheduling feature."

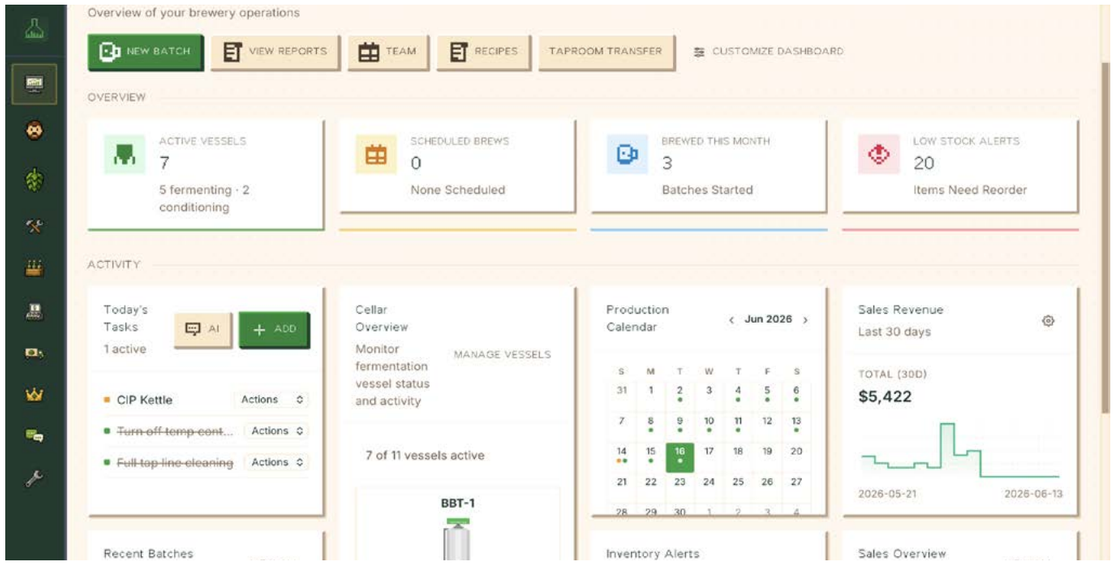
According to Sutherland, adopting Breww has allowed the award-winning brewery to move away from spreadsheets which means less confusion and fewer chances of duplication with the platform bringing everything together into one place.

He says: We now have one spreadsheet that we use to start the process, basically laying out what the brew schedule is going to be. From that one spreadsheet, everything is fed into Breww and then that's the sole point of truth.

For the production manager, using the software has also benefitted with forecasting and visitibility.
"It allows me or Gareth, our head brewer, to see what's going on in the cellar from a distance, which is great. Once you can trust that the data in there is all up to date, it's great when you look at a dashboard that you can access from anywhere," says Sutherland.

He adds: On the packaging side of things, during busy periods we're able to plan our packaging a lot better than we were before. Previously, our packaging was all in an external spreadsheet. Things might get changed in one place and not the other. Whereas a change in Breww is the truth.

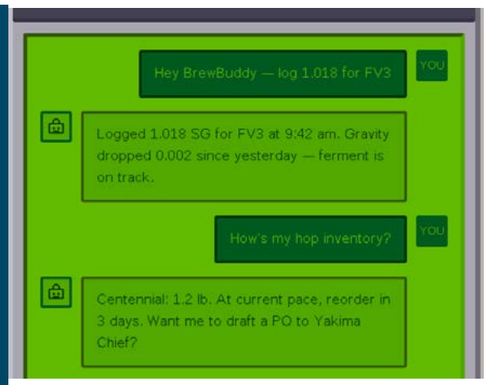
"The forecasting has been really helpful as well. We've tried to move much more towards just-in-time production recently, making sure that our beer leaving is as fresh as possible. Having a forecast in there and being able to change the packaging, which then changes how your forecast looks, is really great."



SOFTWARE SHOWCASE

BREWERY MANAGEMENT SOFTWARE UNITES PRODUCTION, PACKAGING, AND FINANCE INTO ONE SYSTEM TO ELIMINATE MANUAL RECORD-KEEPING AND REDUCE WASTE. HERE ARE SOME OPTIONS AVAILABLE TO YOU.

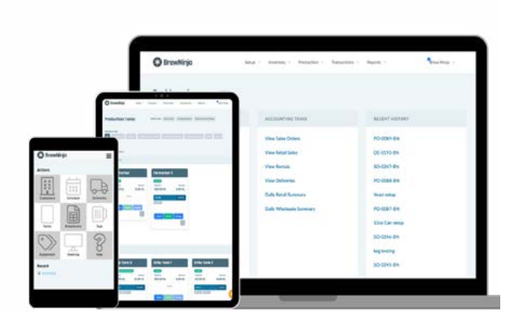
FermentIQ is a platform for craft producers handling Ppoduction, inventory, compliance, and CRM — with a voice-enabled AI assistant that works alongside you on the floor. Brewery, coffee roaster, distillery, or winery, one platform scales with you. FermentIQ is an all-in-one management platform for beverage producers. It handles brewing, packaging, inventory, sales, and compliance in one system, instead of the patchwork of spreadsheets and single-purpose tools most producers cobble together today. It's built for small breweries first (under 10,000 BBLs/year), but the same platform is built to cover wineries, cideries, distilleries, meaderies, coffee roasters, kombucha, and THC beverage producers as well, all using the same base architecture.



Breww is the modern choice to help you run your brewery. Trusted by over 800 breweries it is the all-in-one solution. Breww is a cloud-based brewery management software used by breweries globally to streamline operations from raw materials to final packaging. It provides tools for inventory, batch tracking, sales, delivery route optimization, and handles region-specific tax/duty compliance.

Features include production and QA: ,anages recipe development, fermentation readings, yeast tracking, and scheduling; inventory and container tracking: monitors stock levels of raw materials and tracks kegs, casks, and bottles; sales and CRM: provides an online trade store, invoicing, and integrations with platforms like Shopify and WooCommerce.It also offers accounting Integration: syncs with software like Xero, Sage, and QuickBooks The mobile app allows staff to manage orders, deliveries, and scan barcodes from phones or tablets

Breww can be integrated with a number of other platforms, including ecommerce/web-shop platforms, accounting systems, POS applications, fermentation monitoring, SIBA's Beerflex DDS, marketing platforms and cask/keg suppliers.



This is software to take the admin off of every brew ninja's plate. BrewNinja is a specialized cloud-based brewery and beverage management software designed to streamline day-to-day operations. It functions as an ERP for craft beverage makers, handling everything from inventory, keg tracking, and accounting to wholesale invoicing, tax compliance, and point-of-sale (POS) integration. The platform helps beverage makers scale their businesses and save time by offering a suite of features.

These include inventory and keg tracking automating material deduction as products are made and tracks empty kegs using unique barcodes to reduce losses; accounting and compliance automatically calculates cost-of-goods sold (COGS) and generates the data needed to file tax and excise reports in just a few clicks. Sales & Point of Sale (POS) are also handled integrating directly with Square and QuickBooks.

Maximize your brewing potential with Ekos, the complete grain-to-glass brewery management platform. Ekos is the all-in-one, best brewery software for brewers who want to streamline their brewing operations, optimize production processes, and enhance profitability. Run your entire business better, save time, and discover game-changing automation and insights you won't find anywhere else. They've been there. Managing a craft brewery is hard, and there are so many variables. That's why they built Ekos—to make it significantly easier and more transparent. Their user-friendly brewery software empowers you with accurate data insights that help you maximize efficiencies, consistency and profitability while minimizing risks and lost time, quality, and sales. Inventory management, production scheduling and compliance reporting- all in one integrated system. If you're looking to run your brewery more efficiently and profitably, you need a solution beyond spreadsheets. Instead, Ekos offers a single, connected, cloud-based brewery operations software.

There are four essential ingredients in beer: water, malt, hops, and yeast. There is, however, an equally as important, fifth ingredient, which is crucial for breweries in taking their practices and results to the next level – data. The 5th Ingredient empowers breweries to gather data, drive profitable growth, and ensure consistency and quality of every pint brewed.

The 5th Ingredient helps these businesses collect and utilize their data for proactive, predictive, process improvement. Their flagship product is Beer30, a proprietary Software-as-a-Service, which allows a brewery to track data from grain-to-glass. In September 2020, they also launched Bucha30, the world's first Kombucha Brewery Management Software system.

INJECTING NEW LIFE INTO THEIR BEERS

WHEN A VIBRANT, BUSTLING CRAFT BREWERY IN THE HEART OF BRISTOL WANTED TO INCREASE OVERALL YIELD AND IMPROVE PRODUCT QUALITY ON ITS BELOVED BEERS, IT TURNED TO CENTRIFUGE TECHNOLOGY TO INJECT NEW LIFE INTO ITS BEERS.

Bristol Beer Factory is an established craft brewery with a strong focus on quality and scale. Operating within the heart of the local community, the company's motto is to unite people through world-class beer while representing the values, creativity and energy of the city of Bristol.

As the brewery began to increase production volume to meet growing demand, it also wanted to increase yield and improve quality during the brewing process to positively impact efficiency and profitability.
Product loss is often seen as a hidden cost in the brewing industry and if not rectified, can have a significant impact on operations.

Tristan Hembrow, head brewer at Bristol Beer Factory, said: "We approached Alfa Laval in 2022 looking for a solution that would reduce product losses, improve process efficiency, deliver consistent product quality at scale and offer a clear and justifiable return on investment.

"We were experiencing low yield on our beers, with our hobby beers reaching yield rates as low as 70%. At the time, we were also looking to go vegan friendly and wanted to produce a clear beer.
"We knew we needed a solution that would be able to solve a variety of issues at once, while importantly, providing us with a quick ROI. That's when we were introduced to the Brew 250 from Alfa Laval."

A helping hand The Alfa Laval Brew 250 is tailored for higher-capacity brewery operations and was selected for use as a centrifugal separation solution in Bristol Beer Factory's production. Used in pre-clarification, green beer separation, hot wort separation and beer recovery, centrifuges ensure minimal levels of oxygen pick-up during passage through the separator and the highest standards of hygiene.

The system enhances beer quality, provides a longer shelf life, improves haze stability, and preserves aroma and flavour. In total, the time from order to delivery on the Brew 250 unit was two weeks, highlighting the efficiency of Alfa Laval's supply chain, logistics and coordination.

Alongside the Brew 250, Bristol Beer Factory also implemented the Alfa Laval Optiwia, which contributed to reduced water consumption within the brewing process.
The Optiwia upgrade allows systems to achieve up to 70% less water consumption of the centrifuge. In addition to the significant water savings, the system compensates for any variations in site water supply pressure, providing more robustness of centrifuge operation and protecting uptime.

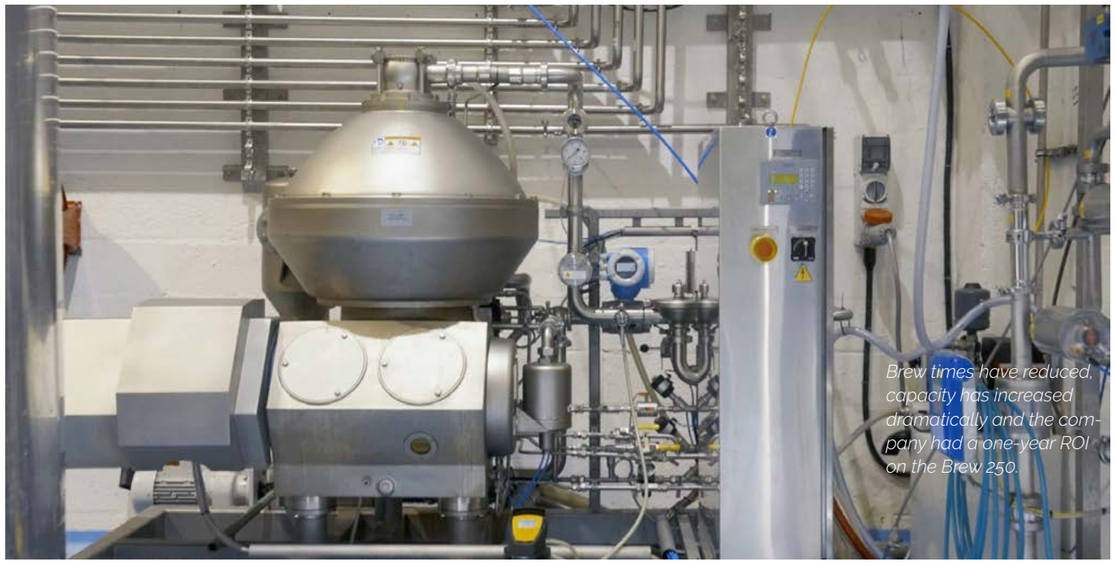
Thanks to the innovative and smart design, the system secures water savings without the need for a site cooling loop. Upgrading an existing centrifuge with Optiwia, provides an easy-to-use, cost efficient and easily maintained product.
Hembrow explained: "The Optiwia helped save our water consumption straight away. We're saving roughly 70% of our water which we then feed back into the Brew 250. This has helped us make significant progress towards our wider sustainability and efficiency goals.

"Our business has really been elevated since having these two machines working in tandem. Our brew times have reduced, our capacity has increased dramatically and we had a one-year ROI on the Brew 250.
On its own, the Brew 250 has allowed us to grow by 25%. It's genuinely been a life changer for us, and I would say to any brewery, go and get yourself an Alfa Laval Centrifuge. It will make the world of difference to your business."

Mark Breese, technical support specialist at Alfa Laval, said: "The results from this project really do speak for themselves. From achieving a ROI of one year to reducing water wastage by 70%, it has been fantastic to see Bristol Beer Factory go from strength-to-strength with our help.

"And it's not just impressive results that have defined the work carried out at this brewery, it's also the teamwork and communication that ensured machinery was delivered and implemented without a hitch.

"From sourcing an alternative disc stack from another brewery to running the Optiwia seamlessly alongside the Brew 250 to maximise results, this has been a masterclass in using machinery to bolster brewery resilience while increasing outputs and profit."



Brew times have reduced, capacity has increased dramatically and the company had a one-year ROI on the Brew 250.

SEEING BEER DIFFERENTLY

QUALITY CONTROL HAS ALWAYS SAT AT THE HEART OF BREWING, BUT MANY OF THE METHODS USED TO ASSURE IT HAVE CHANGED LITTLE OVER THE CENTURIES. TODAY, A NEW GENERATION OF ANALYTICAL TOOLS IS GIVING BREWERS FASTER INSIGHT INTO WHAT IS HAPPENING INSIDE THEIR BEER, OFTEN LONG BEFORE PROBLEMS BECOME VISIBLE.

An ongoing collaboration between Figura and Greene King Brewery is showing how particle analysis can provide that visibility throughout production, ultimately ensuring the quality of beer reaching the customer.

Figura began working with Greene King Brewery after meeting at Brewers Congress 2023. An early priority was to address micro-contamination detection, a persistent challenge for all brewers. Microbiological plating remains the industry standard for detecting contamination, but although widely trusted, it is slow. Filtration, incubation and microscopic analysis can take up to ten days to return a result, limiting how many samples can be tested and how quickly breweries can respond.

Working with Greene King Brewery, Figura conducted a comparative study between conventional microbiology and its particle-based 24-hour Figura Micro Method.
The results showed contamination could be confirmed within 24 hours, while maintaining comparable sensitivity. The system has demonstrated detection even at very low levels of contamination, including fewer than 10 cells per 500ml sample, enabling earlier visibility of potential spoilage.

At the heart of Figura's technology is a microfluidic flow cell that measures the size and concentration of particles in a beer sample. A small sample of beer is mixed with a salt solution and passed through a flow cell. A current is applied to sensors in the flow cell, and as particles pass through the cell, they disrupt the current in different ways depending on their size and structure.

From this signal, the system builds a "particle fingerprint" – a baseline profile of how a beer looks under normal conditions. Each product has its own fingerprint, shaped by its proteins, polyphenols, carbohydrates, and other structural components.
When contamination is present, even at very low levels, that structure shifts as the contaminant particles metabolise. The change is detectable before spoilage becomes visible in finished beer.

FASTER DATA, SMARTER DECISIONS

Results are automatically uploaded to a cloud-based platform and compared against historical datasets and product baselines, enabling near real-time monitoring of quality trends.

The key advantage is speed. Issues that would previously emerge days later through microbiology can now be identified within hours. This significantly shortens the response window, allowing corrective action while beer is still within the supply chain.
This also changes the sampling model itself, giving members of the team at Greene King Brewery a more continuous view of production rather than isolated data points.

The work has since moved deeper into production, particularly across Greene King Brewery's kegging line. Beer leaving the final tank is packaged through multiple keg head fillers, typically filling up to 24 kegs at a time. Variability between filler and washer heads has long been recognised as a potential source of inconsistency, but it has been difficult to isolate using conventional testing.

By increasing sampling frequency with the Figura Analyser, the brewery was able to test up to 12 consecutive kegs from a single batch. Each sample was compared against the established product fingerprint, producing a higher-resolution view of process variation.

This enabled engineers to identify patterns linked to specific filler or washer heads. In several cases, equipment performance has been optimised through targeted adjustments to maintenance and cleaning schedules, enhancing overall line control.

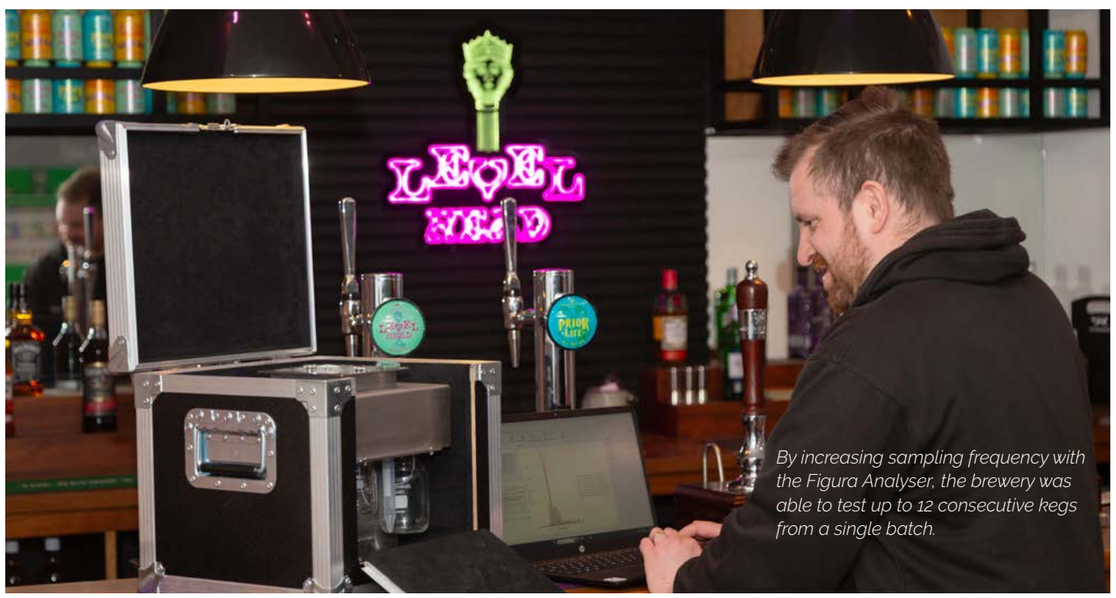
Figura is currently developing a portable version of its analyser that could be used in venues, allowing a brewer to compare beer quality against its original fingerprint and help technicians identify dispense issues.

What emerges from the Greene King Brewery and Figura partnership is a shift in how quality is monitored across brewing operations. Rather than relying on periodic laboratory testing, Greene King is beginning to build a more continuous picture of product behaviour from production through to packaging and, increasingly, dispense.

For the Suffolk brewer, this means earlier detection and tighter control over consistency, and ultimately a better pint served across the bar. For Figura, it demonstrates how particle analysis is moving beyond validation work and instead, into routine operational use.

So as technologies like this become more embedded in everyday brewery practice, the process of quality control is shifting from periodic checks to continuous understanding.
And for brewers, this opens the door to tighter control, greater consistency, and better quality where it matters most: in the customer's glass.

"The key advantage is speed. Issues that would previously emerge days later through microbiology can now be identified within hours. This significantly shortens the response window, allowing corrective action while beer is still within the supply chain," Figura Analytics



By increasing sampling frequency with the Figura Analyser, the brewery was able to test up to 12 consecutive kegs from a single batch.

BREWING BEER WITH FOOD WASTE

BREWING WITH SURPLUS FOOD IS MOVING FROM EXPERIMENTAL NOVELTY TO A RISING SUSTAINABILITY PRACTICE WITHIN CRAFT BEER. BUT WHAT DOES IT ACTUALLY TAKE TO MAKE IT WORK? BASED ON RESEARCH OF EUROPEAN CRAFT BREWERIES THIS ARTICLE FROM MILICA KONČAR EXPLORES THE PRACTICAL REALITIES, BENEFITS AND BARRIERS OF BREWING BEER WITH FOOD WASTE AND WHAT OTHER BREWERS CAN LEARN FROM EARLY PIONEERS

The idea of using food waste in beer production sounds like an obvious win. Brewers can save food waste, lower reliance on virgin grain, create local partnerships and build a sustainability story that resonates with drinkers — all while producing high-quality beer.

In practice, however, brewing with food waste is more complicated than simply throwing unsold bread into the mash tun.

While the concept has gained visibility in recent years, especially through breweries such as Toast Ale, relatively little information exists about the day-to-day realities of implementing the practice commercially. What makes these projects succeed? What causes brewers to abandon them after a single batch? And can brewing with food waste move beyond niche experimentation?

These questions formed the basis of research conducted as part of a Master's thesis in the program of Circular Economy at the Edinburgh Futures Institute, examining how seven European craft breweries use food waste in beer production and what factors help or hinder this practice.
What makes the practice circular is the reuse and transformation of surplus food materials to usable/higher value products (beer), thereby reducing waste while substituting raw material (most commonly barley). The research findings suggest that breweries success mostly depends on factors such as partnerships, logistics, organisational culture and long-term commitment.

BREWING'S FORGOTTEN RELATIONSHIP WITH FOOD WASTE

Beer and food have historically been intertwined. Bread, grains and fermented foods have been connected to brewing traditions for centuries — hence the long-standing description of beer as "liquid bread".

Modern industrial brewing gradually standardised production around malted barley during the twentieth century, particularly after large-scale mechanisation and consolidation of the industry. As brewing became increasingly optimised and standardised, many alternative grain and food inputs disappeared from mainstream production.

Over the last few decades, however, food waste has returned as a brewing input as part of wider sustainability and diversification efforts.
Today, surplus bread is the most common replacement ingredient, though breweries are also experimenting with different bakery waste, naan bread, pasta, rice, oats, potatoes, fruits, cookies and even leftover fries.

Depending on the material and brewing method, food waste is used to replace around 25% of malt in the mash, while some experimental projects report replacing up to 60% of fresh barley (McDonagh et al., 2024; Martin-Lobera et al., 2025).

One important advantage of this practice is that breweries do not need new major equipment to begin. Existing systems can accommodate the practice with recipe adjustments and additional preparation steps. The challenge lies in sourcing consistent materials, preparing them correctly, developing a distinctive recipe, managing storage and logistics, and building reliable supplier relationships.

SEVEN BREWERIES, TWO DIFFERENT APPROACHES

The research combined interviews and case studies of seven European breweries – the most prominent European practitioners of this approach at the time of the study in 2024 (Figure 1).

As part of the research, a broader review of the European beer industry revealed no long-term standalone beers from "big breweries" made with food waste. The only identified cases were limited-run experimentations and collaborations (e.g., Heineken with Toast Ale). So one of the most important initial data points was the exclusive growth of this practice in the realm of the craft beer industry.

The figure below showcases the explored breweries and their brewing approach (whether they have their own facility, or work in cooperation or rent (cuckoo brewing)), type of food waste used, what percentage of mash they replace with food waste and how they quantify it.

The sample revealed two distinct business models: one group treated food waste beers as part of a broader brewery portfolio. Breweries such as Brussels Beer Project, UnBarred Brewery and Jaw Brew continued producing a wide range of conventional beers alongside beer with food waste element. The other group built their identity almost entirely around food waste recovery.

Companies such as Toast Ale, Knärzje, Biova Project and Crumbs Brewing positioned utilising surplus food as the core of their business model and brand identity, often relying on contract or cuckoo brewing arrangements.

Regarding materials, bread and bakery waste dominated most operations because they integrate relatively easily into brewing recipes and are widely available. However, regional differences shaped ingredient choices. In Italy, for example, surplus pasta appeared as a brewing input.

Furthermore, proximity to suppliers proved critical – food waste spoils quickly, so economical and logistical viability strongly depends on local sourcing.

One of the most important findings from the research is the complex connection off all explored business value factors, which were divided into external (users' behaviour, regulations, economy and market competition and supply chain and logistics) and internal factors (finance, knowledge, organisation and management and product and materials characteristics).

As seen in the graphic representation of these categories, each factor can act as a barrier and as an enabler. Their effect on the business depends on the context, scale and the brewery's organisational approach.

The strongest barrier identified across all interviews was the wider economic and competitive pressure facing craft breweries. Interviewees consistently described a consolidated market dominated by large brewing companies, alongside rising costs, inflation and market saturation, as major pressures that don't leave room for experimentation. Developing recipes with surplus food takes time, labour and operational flexibility — resources many breweries currently struggle to spare.

At the same time, the research identified three particularly strong enablers: the collaborative culture of the craft beer industry, strong partnerships, and organisational commitment.

Most other factors — including logistics, finance, regulation, knowledge and consumer behaviour — showed a more balanced influence (Figure 2). Depending on the brewery and local context, they could either support or hinder implementation.As seen in the graphic representation of these categories above, each factor can act as a barrier and as an enabler. Their effect on the business depends on the context, scale and the brewery's organisational approach.

The strongest barrier identified across all interviews was the wider economic and competitive pressure facing craft breweries. Interviewees

Business	Brewing approach	Type of food waste	Percentage of mash	Annual quantity of used food waste in production
Biova project (Italy)	Cuckoo brewing	bread, broken pasta and broken rice	30%	10.5 tons of surplus bread
Brussels Beer project BBP (Belgium)	Brewery	bread, speculoos, beetroots & pear, apples	20%	10 tons of bread per year
Crumbs Brewing (UK)	Cuckoo brewing	bread, naan, coffee grounds	Up to 25%	56,600 loaves saved to date
Jaw Brew (UK)	Previously a brewery, now a pub	bread and morning rolls	40% (low alcohol beer)	-
Knärzje (Germany)	Cuckoo brewing	bread	25%	surpassed 10 tons
Toast Ale (UK)	Brewery, cuckoo brewing, franchising and licensing	bread, oats, crumpets, rice hulls	25%	3.8 million slices to date (end of 2024)
UnBarred (UK)	Brewery	leftover husks from chocolate and coffee	-	-

Figure 1: Characteristics of food waste utilisation of businesses in the sample (data collected in June and July 2024)

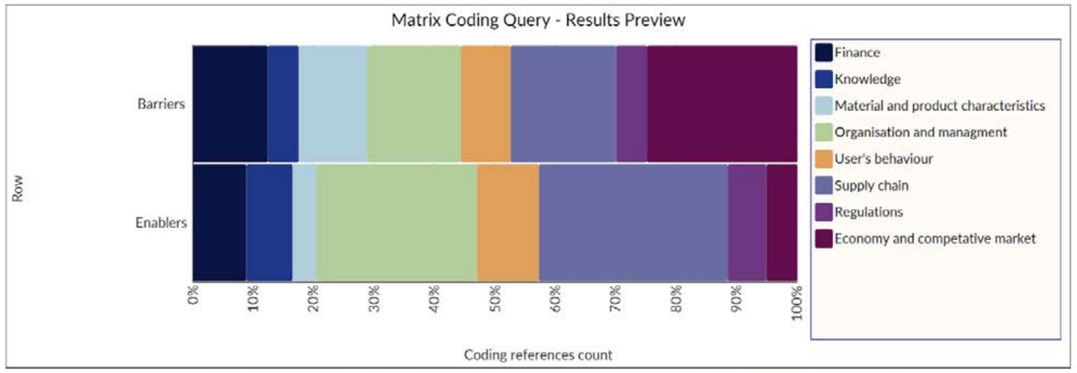


Figure 2: Distribution of value chain categories across "Enabler" and "Barriers" classification

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THE ADVANTAGE OF CRAFT BREWING CULTURE

Europe, especially the western side, has a quite well-developed craft beer sector, which provides fertile ground for exploring alternative and sustainable brewing practices, as craft breweries are often recognised as key drivers of innovation within the beer industry.

Furthermore, two principles common in craft breweries – sustainability and locality – align with the practice of utilising food waste in beer production. Craft breweries often emphasise local identity, authenticity, and community relationships, which helps build strong partnerships with nearby businesses.

Additionally, innovative sustainable practices combined with a local identity set them apart from big brands, a distinction that can help justify the higher prices of craft beers compared to mass-produced beers.

Moreover, the collaborative and open-minded approach of craft brewers encourages knowledge-sharing and experimentation. Recipes, brewing techniques and operational experiences are often exchanged informally between breweries, reducing the learning curve for newcomers. That openness creates space for innovation that would be harder to implement in highly standardised large-scale production systems.

The research also showed that successful food waste utilisation depends heavily on relationships outside the brewery. Strong partnerships with bakeries, cafés and food producers helped breweries secure stable supply streams while also simplifying logistics and waste collection.
The best examples moved beyond purely transactional relationships. German brewery Knärzje described partnerships that expanded into investment, mentoring and collaborative sustainability promotion.

In these cases, suppliers (bakeries, supermarkets, shops, etc.) benefited as well. Surplus food became a resource rather than a disposal problem, while they strengthened their own sustainability credentials and added a point in marketing.

For contract or cuckoo breweries, partnerships became even more critical because production itself depended on maintaining flexible external networks.

At the same time, interviewees noted that scaling up often became difficult when new partners did not share the same environmental values or long-term commitment.

This points to one of the most important factors for implementation– especially within internal management– as breweries that successfully integrated food waste into production tended to share several characteristics: openness to experimentation, strong environmental values and willingness to invest time into developing new systems. If breweries found partners who shared a similar approach, the outcomes were consistently more successful.

This was especially important because many operational challenges — such as ingredient preparation, storage or logistics — were technically manageable, but required persistence and adaptation. The most successful projects treated food waste utilisation as part of a broader sustainability identity and business philosophy, combining a passion for brewing with a passion for saving food or doing good.

As noted by Knärzje brewery, their goal

was to create: "a beer that has a benefit for society."

Interestingly, categories commonly assumed to be major barriers in adapting new practices — including logistics, finance, regulation, knowledge and consumer behavior — showed relatively balanced influence overall.

Their impact depended largely on local conditions and the brewery's strategy. For example, logistics could become highly challenging when sourcing inconsistent materials across large distances. Yet breweries with nearby bakery partners often described logistics as relatively simple.

As explained by the UnBarred Brewery: "Practicality and the logistics of using by-products from another business is more the barrier rather than anything else… if it's local it's easy."

Other breweries even improved logistics through deeper cooperation with suppliers. Crumbs Brewing encouraged bakery partners delivering fresh bread to simultaneously collect unsold products from retailers, improving efficiency for both sides.

Furthermore, implementation of the practice didn't cause big disruption in finances. Breweries more or less balanced the savings gained by free or low-cost surplus ingredients with the need for additional labour or processing costs such as freezing, drying or shredding bread.
For most breweries, the practice did not dramatically increase profitability — but neither did it create major financial risk. Instead, brewers described the benefits more in terms of resilience, diversification and long-term brand value.

Consumer responses were generally positive as well (disclaimer – this observation was based on brewers' experiences rather than direct consumer surveys).
Brewers reported that beers made with food waste attracted curiosity and helped products stand out in crowded craft markets. However, it is recognised that craft beer drinkers are already more open to experimentation than "mainstream consumers".

Interviewees further agreed that, in terms of consumer loyalty and commercial success, beer quality remains the decisive factor — sustainability and new ingredient presents just a good initial catch.

Regulations varied significantly between countries. In Italy, the Biova project noted that surplus food intended for commercial reuse must be purchased rather than donated, affecting their finances. In Germany, Knärzje brewery faced additional bureaucracy linked to purity regulations when brewing with bread or alternative ingredients.
Several interviewees argued that existing legislation often slows innovation rather than encouraging new practices.
At the same time, some also pointed to the absence of stronger sustainability regulation as a missed opportunity, citing the example of French laws on food waste and the ban on supermarkets destroying food waste, which could lead to new partnerships.

Despite growing visibility, food waste brewing still operates at a relatively small scale. The problem of food waste is extensive, with approximately one-third of all food produced globally wasted (UNEP, 2024). Bread is among the most discarded items by mass, highlighting a clear opportunity for a new sustainable raw material in brewing.

It is important to mention that the true problem lies in the food system itself, and food waste prevention remains far more important than food waste recovery. Currently, even though some prominent initiatives use tons of bread a year, it is miniscule compared to the overall scale of food waste generation. Nevertheless, brewing can still play a valuable role by creating viable reuse pathways, especially if scaled up across the industry.

The practice may also become increasingly attractive as barley – the fourth most important cereal globally and a key animal feed – is subject to price fluctuations, supply chain uncertainty, and import instability.

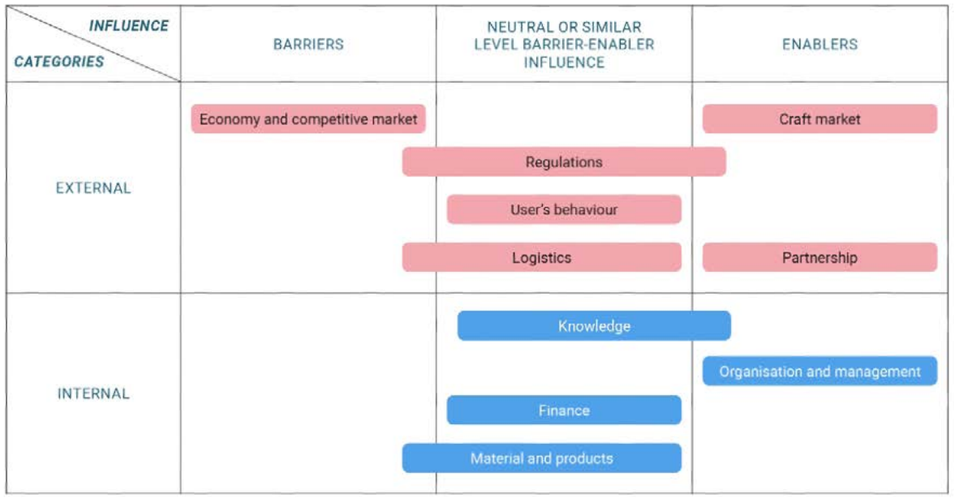

Figure 3: The general tendency of the external (red) and internal (blue) categories for positive (enabler), negative (barrier) or neutral effect/similar level

LESSONS FOR BREWERS

For breweries interested in experimenting with food waste, the research suggests several practical lessons:cIdentify local food waste streams that can realistically be integrated into your brewing operations – keep an open eye on local food sources; Build partnerships on shared values and long-term alignment. Also, expect recipe development to take time and make use of existing knowledge and resources – particularly those available online – on the preparation and processing of food waste for brewing.

They should learn from existing practitioners, follow the new sustainable/ circular practices; Use the food waste component as a promotional element to increase consumer interest, framing it within a broader sustainability narrative; Approach the practice as a broader shift within the value chain, considering all operational factors and the wider brewery identity rather than treating it as a one-off experiment

The overall picture emerging from the research is that brewing with food waste, besides being a brewing re- innovation, is actually more of an organisational and cultural shift.

The breweries that succeeded were not necessarily those with the most advanced equipment, the largest production capacity or an already developed recipe. It was exactly opposite, they were the ones passionate about the cause, able to build strong partnerships, maintain long-term commitment and embed circular thinking into everyday operations.

In that sense, the practice reflects many of the defining characteristics of craft brewing itself: experimentation, collaboration, local relationships and adaptability. And while food waste brewing remains niche today, those same qualities may help it expand as economic pressures, resource instability and sustainability demands continue reshaping the brewing industry.

Author: Milica Končar, an alumnus of the University of Edinburgh. Text is based on the research article "Food Waste Utilisation in Beer Production: Enablers and Barriers within the European Craft Beer Industry" published in the Journal of Circular Economy, publicly available on online.

SOUTH AMERICA

SOUTH AMERICA: AN EVOLVING MARKET

DRIVEN BY CONSUMER SHIFTS TOWARD PREMIUMIZATION, HYPER-LOCAL INGREDIENTS, AND NON-ALCOHOLIC OPTIONS, THE SOUTH AMERICAN BREWING SECTOR HAS TRANSFORMED INTO ONE OF THE WORLD'S MOST RAPIDLY EVOLVING AND VIBRANT BEVERAGE FRONTIERS.

Across South America, beer is far more than a refreshing antidote to a warm climate. Instead it is the undisputed heavyweight of the continent's beverage sector. Even in historic, globally renowned wine capitals like Chile and Argentina, beer dominates the casual social fabric, often capturing over 75% of total alcohol volume.

From the bustling taprooms of São Paulo to the coastal craft clusters of Mar del Plata, the South American brewing landscape is undergoing a dramatic evolution. Long characterized by a uniform preference for mass-produced, ice-cold light lagers, the region has transitioned into one of the world's most dynamic, polarized, and rapidly premiumizing beer markets.action may be expected,

From an economic standpoint, the South America craft beer market is expected to register a CAGR of 7.4% between 2025-2030. And on a macro level, South America's biggest brewery is Ambev (Companhia de Bebidas das Américas), headquartered in São Paulo, Brazil. Formed by the 1999 merger of Brahma and Antarctica, it is the largest brewer in Latin America, controlling over 60% of the Brazilian beer market, and is a subsidiary of the global giant AB InBev

In the world of craft beer, the market expansion is mostly fueled by the larger proportion of millennials who are interested in craft beers and looking for a novel flavor, as well as the relaxing atmosphere of microbreweries and brewpubs. The market's expansion is anticipated to be fueled by elements including per-capita consumption and the number of organizations dedicated to sharing knowledge about various beers.

TRADITION AND MODERNITY

In Argentina, one well-known brewery is Cervecería Antares (opposite right), which is widely considered the undisputed pioneer of the craft beer movement in Argentina. Founded at a time when the entire country's beer landscape was dominated by generic, mass-produced industrial lagers, Antares proved that there was a massive appetite for flavor, variety, and artisanal brewing culture in South America.

Among their beer offering is Kölsch, the flagship golden ale. This is described as a beer that is smooth, crisp, and slightly fruity designed as the perfect gateway beer for macro-lager drinkers. Elsewhere the brewery's Scotch Ale is deeply malt-forward, sweet, and ruby-coloured ale that became an absolute favourite in the Argentine market. While the company's Honey Beer is a massively popular style in Argentina, brewed with pure, local honey that provides a sweet finish without being cloying.

Some 1100 miles north, in Brazil, is Dude Brewing, which are considered is one of the most exciting,creative names in the modern Brazilian craft beer scene. Founded in 2019 by Jocemar Gross and Guilherme in Caxias do Sul (a major city in the mountainous Serra Gaúcha region of Rio Grande do Sul), it is a nano-brewery that has quickly built a cult following across Brazil.
Instead of operating as a traditional microbrewery, the founders built an entire lifestyle ecosystem under the Dude Company umbrella, seamlessly merging high-end craft beer, specialty coffee roasting (Dude Coffee), and urban contemporary art.

On the brewing side, Dude enjoys an exceptionally high rating among beer enthusiants (boasting a 4.2+ on Untappd), largely due to their technical prowess in two major areas. They have made a name for themselves by mastering highly dense, complex, and high-ABV styles. These incude Imperial Stouts like Dead or Alive at Crystal Lake and Bicheiro as well as Barleywines that include as the pecan pie-inspired Dude in the Sky with Diamonds).
Equallly, heavily-hopped DIPA and TIPA releases such as Bang Bang Nuclear and Dude Vs Dude complement the popular German Pilsner-style Dude Pils and Czech-style and El Patrón.

But for more insight and expertise on the South American brewing sector, it's important to hear from a local expert. Mariano Tissone is the regional sales manager for South America. at Lallemand Brewing. He joined the business in 2019 and has many years of experience as a brewmaster and both teacher/consultant to the brewing industry. Here, he shares his thoughts on the South American sector in 2026.

Compared with the relative stability of brewing markets in Europe and North America, South America operates under fundamentally different conditions. Volatility is structural rather than episodic, with inflation, currency pressure and rising input costs shaping daily brewing decisions. Yet it is within this environment that South American brewing continues to evolve, driven less by uniform global trends and more by adaptability, technical pragmatism and local relevance.

DISTINCT ECOSYSTEMS

South America is not a single brewing market but a collection of distinct ecosystems shaped by geography, culture and economic reality. Consumer preferences, dominant styles and levels of market maturity vary markedly by country, requiring brewers to respond to local constraints rather than regional averages.

In Argentina, the craft beer sector has entered a clear phase of contraction and consolidation. Industry sources indicate that craft beer consumption declined by around 30% between 2023 and 2025, as inflation, falling real wages and reduced discretionary spending weakened ontrade demand.

More complex and heavily hopped styles have been most affected. While IPAs remain the dominant craft category, many breweries have reformulated recipes, reduced rawmaterial intensity

South America is not a single brewing market but a collection of distinct ecosystems shaped by geography, culture and economic reality," Mariano Tissone Lallemand Brewing

or shifted production towards lagers and lighter styles. Cost pressure and import constraints have also encouraged greater use of locally sourced ingredients to stabilise supply and pricing.
Non-Alcoholic Beer and Low-Alcohol Beer (NABLAB) development in Argentina remains uneven. Growth has been led mainly by industrial brewers, supported by scale, established brands and marketing resources. Craft adoption has progressed more slowly, constrained by capital requirements, development timelines and limited capacity for process optimisation and consumer education.

Brazil presents a contrasting but equally demanding landscape. As South America's largest beer market, with annual consumption close to 15 billion litres, growth slowed sharply by 2024 and into early 2025. Volumes increased only marginally, while rising production costs and market saturation accelerated brewery closures and consolidation.

According to Brazil's Ministry of Agriculture (MAPA), this period also marked the first recorded decline in the number of registered beer products. Within this context, NABLAB has moved beyond experimentation. In 2024, the category posted doubledigit growth, clearly outperforming the wider beer market, although it still represents a lowsingledigit share of total volume. For major brewers, NABLAB now plays a strategic role, while smaller producers have remained more cautious, constrained by capital intensity, microbiological risk and margin sensitivity.

Despite these pressures, Brazil continues to differentiate itself through local identity. Catharina Sour, the country's first internationally recognised beer style, has evolved from novelty into a formally codified category defined by lactic fermentation and tropical fruit use, with increasing relevance in competitions and selected export markets. More broadly, regionally expressive ingredients remain an important point of differentiation in an increasingly crowded craft landscape.

Further south, Chile's brewing sector remains conservative and technically driven, with consumption flat through 2024 and into early 2025 under cost pressure and rising import competition, though beer still dominates alcohol sales at over 75% of total volume with percapita consumption near 60 litres.

As the third-largest destination for U.S. beer exports, Chile faces intensified competition in premium segments,

Catharina Sour is recognized as the first Brazilian beer style

prompting local brewers to focus on efficiency, sustainability and selective portfolio rationalisation, while low and nonalcohol beer adoption advances cautiously.

Across the Andean countries, brewing markets remain relatively young but structurally sound. In Peru, category development continues to be supported by urbanisation, tourism recovery and the gradual expansion of ontrade venues, while craft beer remains niche in volume terms but influential in shaping brand identity and experimentation.

Colombia shows comparatively stronger momentum within the region, driven by an expanding urban consumer base and the growth of specialised retail and hospitality channels.

Across the Andean countries, lagers form the commercial backbone of both industrial and craft brewing, valued for drinkability and production efficiency, while styles such as the fruitforward sour beers have emerged as a focused point of differentiation for breweries, particularly in warmer climates. Looking ahead, selective premiumisation rather than broad portfolio expansion is expected to persist across South America, with technical, operational and economic efficiency remaining central to strategic decisionmaking. NABLAB is set for continued but measured growth, while further consolidation appears inevitable in more mature markets.

At a structural level, the EU–Mercosur trade agreement may shape the longerterm operating landscape by improving regulatory predictability and facilitating investment and access to brewing inputs and technology.

Across the region, increasingly informed yet price-constrained consumers are forcing brewers to operate with greater technical discipline. Recipe simplification, yield optimisation and process consistency have become strategic priorities, making the ability to manage complexity efficiently a defining factor of sustainable progress.

“Looking ahead, selective premiumisation rather than broad portfolio expansion is expected to persist across South America,” Mariano Tissone Lallemand Brewing

HOMEBREW HERO
JIM RANGELEY

EARLY EXPERIENCES BREWING WITH KITS FROM WILKINSON'S TAUGHT JIM RANGELEY MANY OF THE PRINCIPLES THAT ENCOMPASS HIS NOW DAY-TO-DAY WORKLOAD – HOW TO TAKE ACCURATE GRAVITY READINGS AND CALCULATIONS FOR ALCOHOL, AS WELL AS THE CRITICAL IMPORTANCE OF HYGIENE. BUT THOSE FORMATIVE DAYS SET HIM ON A PATH TO BECOMING A CELEBRATED BREWER AND ALSO THE RECIPIENT OF OUR VERY OWN 'BREWER OF THE YEAR' ACCOLADE IN 2024.

As a Sheffield lad born and bred, and with a plethora of fantastic pubs right on my doorstep – one of which, The Sheaf View, is still my local - it was perhaps inevitable that I'd be a beer fan from as soon as I was old enough for pints.

My first experiences of homebrewing were using kits from Wilkinson's (remember them) - not hugely exciting beer, but at the time being a tight Yorkshireman and a student, cheap booze was the aim.
And despite being incredibly basic, brewing with these kits taught me many of the principles that encompass the now day-to-day workload – how to take accurate gravity readings and calculations for alcohol, as well as the critical importance of hygiene.

While over the years I may have packaged beer that became over carbed, due to a less than stable final gravity, or over primed at the bottling phase (leading to one memorable weekend of small explosions in my shared student house), it was all a learning experience and only made me more keen to learn and understand the processes taking place in my rudimentary buckets.

Over the years of home-brewing with extract, my main interest was to alter yeast. Moving from the Nottingham Ale yeast provided in most of the kits to either a Belle Saison or an Abbey strain, with an additional bag or two of sugar.
This change became a more accessible entry point to alternative beer styles, years before the days of double dry hopping and intentional haze.
Also it meant rather conveniently, that the lack of temperature control on the fermenters was something I could see as a benefit and lean into, creating some deliciously high ester beers.
This in turn kicked off my love affair with saisons and meant I began to seek out more interesting styles, made easier by living round the corner from the sadly no longer open Beer Ritz in Leeds.
Durham Brewery were a particular favourite at the time with some excellent saisons and abbey style beers which felt innovative for the time, continental beers made in the North East and still going strong today.

"I went from an unfulfilling job to bouncing out of bed to drive an hour down the M1 at 5am," Jim Rangeley

I stopped brewing for a short while post uni, but my interest in beer and flavour grew and grew.
My now wife Laura and I started a blog, initially writing about food and whisky before the pull of Sheffield pubs and the amazing scene we have here really drew us in.
Independent bottle shops with passionate, knowledgeable owners were starting to open up, and we were soon spending the majority of our spare time (and funds) chatting to people in these shops and our local pubs, attending beer and food pairings and meet the brewer events – which became more commonplace in Sheffield thanks to SIBA Beer X taking place here a number of years ago – and generally doing everything we could to learn as much about beer, the making of it, and what that ultimately meant in terms of a finished product.

Jim Rangeley on beer festival duties with the Funk Dungeon.

With this ever-expanding thirst for knowledge I soon ventured down the whole grain path, starting with a brew in the bag setup on the hob and fermenting in demijohns.
I started to experiment further with different grains, and occasionally locally foraged fruit, opening my eyes to the limitless world of wild yeast. I've actually still got some gooseberry saison in the cellar.

I upscaled to a 25l kit after a brewer friend of mine was emigrating from his job at Thornbridge to Canada and was getting rid of his larger kettle and mash tun.
Turns out this was too large for the hob and I got banished to the garden with a propane burner after setting off the carbon monoxide alarm one too many times, another very important health and safety lesson!
With this kit I would often split batches post primary fermentation to condition on fruit and spices in demijohns, allowing for some fun experiments with flavours.

It wasn't long after this that I bagged my first job in a brewery (Blue Monkey, just outside Nottingham) in early 2015, when demonstrated passion and enthusiasm was enough for an "in" to the industry.
I went from an unfulfilling job as a technician in a school to bouncing out of bed to drive an hour down the M1 to start at 5am and really threw myself into the role. I was pretty soon brewing on a simple 50hl brewkit that operated in a similar

Jim Rangeley with his wife and Abbeydale colleague Laura Rangeley at our 2024 Brewers Choice Awards in London

manner to my kit at home, complete with a gas burner and all, and created my first seasonal beer there just a few months later. I also acquired their first barrels, some second use white wine barrels, for a barley wine.

The homebrew community continued to be hugely important to me and one of the formative days in my career took place in June 2015, where I was invited by a friend running BrewDog Manchester at the time to be a judge for the Great North West Homebrew Competition.

There I met the beer hero that is Jim Cullen of Salford Beer Festival, who was to be integral in helping the Funk Dungeon – Abbeydale Brewery's mixed fermentation project, which I now lead – go from a passion project capable of producing a few corny kegs, to a real and tangible part of our output. Winning beers on that day were made by incredibly talented people who went on to set up breweries including Torrside and Track, and it was a privilege to be there as someone who'd already been able to take the leap from homebrewer to pro.

A few months after this, a production brewer role opened up at Abbeydale Brewery, and ten years later, I'm still very happily here and now Lead Brewer of our barrel project and Co-Owner of the UK's first employee-owned brewery.
In my first year at Abbeydale I started producing mixed fermentation beers, initially a little bit by stealth as the sales team took a fair amount of persuading that this was definitely a good idea. At the time we offered a "signature" range, where each member of staff had total free rein to make whatever they wanted, and I'd decided on a Galaxy dry hopped mango kettle sour. Our kit is pretty big, so I was going to have to make rather a lot of it.

A compromise was to barrel age and brett some, to save sales from being inundated with something completely new and allegedly controversial.
Anyway, long story short, it was a great success and now I don't even have to keep the barrels hidden in the cobwebby space under the brewery that gave the Funk Dungeon its name – it's still kept very separate to our main production space, of course, but has a dedicated area with such mod cons as pallet truck access and drainage.

Alongside gradually acquiring barrels, I was creating a house blend of brett strains, that a decade on is still going strong in a wooden polypin.
This blend of yeast is the foundation of most of the beers that come out of the Funk Dungeon. I built the blend over the years, blending home brew strains from the likes of White Labs and Omega with some wild harvested strains and some spontaneous fermentations.

The main aim from a wort production point of view is to feed the blend with loads of complex sugars, so I mash quite high and use grains that don't have the highest diastatic content.
I usually use an isothermal mash stand, at around 68c - our brewkit is not engineered for traditional Belgian turbid mashes so I'll never be making lambic style beers, even if sometimes the flavour profile at the end beer may be similar.
Over the years I have found my preferred blend of malt and hops I produce for most barrels, using a blend of Plumage Archer, our house grain, (Maris Otter), wheat, rye and some crystal malt, with a large dose of English grown hops.

A variation of this base beer has formed the core of many of the Funk Dungeon releases, most notably Ryes Again (finished with sour cherries and raspberries), Sage Advice in collaboration with Colin Stronge (finished with apricots and sage) and What's This? where we added about 175kg of pumpkins in the mash, later conditioned on peaches.

I aim for a reasonably high hop content, which helps slow lactic acid producing bacterial growth and restricts the acid potential at the end of a long secondary fermentation in oak - although there will be some acid, usually through acetobacter growth encouraged through the micro-oxidation in the wood. I often primary ferment in steel then transfer off after around 80% of fermentation has completed, this will leave the majority of yeast matter and trub behind with it the dead cells after high krausen and reduce the chance of autolysis.

Depending on how the beer ages, I like to add a dry hop with whole cone hops in barrel - while this make emptying barrels somewhat more of a challenge, to put it politely, the inter play between hops and brettanomyces fermentation produces incredibly fruity esters that I find remain far more stable in beer than in standard fermentations.

It's one of my favourites to make and has become a seasonal, we produce it with our friends at Locksley Distillery. Annually they produce a blood orange liquor called Morocello, using just the zest of the fruit, which means they have the rest of the fruit surplus to requirement. Which is where we come in!
I blend barrel aged beer into IBC with a load of the fruit ready to ferment until stable, this year I felt the beer needed an additional dimension which is where the foraged nettles come in.

It is indicative of the approach I've been using since my early experiments at home and I have adjusted our process to make it more appropriate for a home brew system.

"Over the years I have found my preferred blend of malt and hops I produce for most barrels, using a blend of Plumage Archer, our house grain, (Maris Otter), wheat, rye and some crystal malt, with a large dose of English grown hops," Jim Rangeley, Abbeydale Brewery

BREW MY BEER

BLOOD ORANGE NETTLE SOUR

WITH SUMMER IN FULL FLOW, A REFRESHING FRUITED SOUR IS THE PERFECT BEVERAGE TO WHILE AWAY THE EVENINGS. HERE IS HOW YOU CAN TRY YOUR HAND AT JIM'S BLOOD ORANGE NETTLE SOUR.

BEER: BLOOD ORANGE NETTLE SOUR - 5.0%

Length 25l
Target OG 1.039
Target PG 1.0005

Grist - Assuming 80% mash efficiency
Plumage Archer 3Kg
Torrified Wheat 0.50kg
Rye 0.5Kg
Crystal Rye 0.2Kg

Mash at 3l/kg to achieve 68C for 45mins. Sparge at 73C to achieve pre boil length of 28l

Boil for 60mins
Olicana bittering (target IBU 35)
60 mins -
30g Olicana T45
5 mins -
75g Opus T45
Flame out -
125g Olicana T45

Chill to 20C for fermentation: Allow fermentation to free rise, co-pitched with ale yeast of choice and a blend of Brettanomyces strains.

Yeast Suggestions: Omega, All the Bretts - White Labs, American Farmhouse - WLP 4022 Walloon Farmhouse II, Bottle dregs from your favourite Lambic, British or American sour beer or Orval? Add the bottle sediment to your fermenter to capture some of that life from your chosen beer.

After primary fermentation, transfer the beer off the remaining trub and yeast sediment in FV into a suitable conditioning vessel for ageing. Rack onto fresh fruit, oak chips and nettles leaving only a small headspace, there shouldn't be much krausen at this point but keep an eye on your airlock.

I'd recommend 2kg of blood oranges (80g/L) - if blood oranges are out of season try and get the best oranges you can find from a greengrocer and cut the pith off, this will avoid too much bitterness from the rind and leave you with a lovely balance and a tart fruit finish. For the nettles, the leaves from two tall buds should be enough to get a really good spicy green freshness. Just make sure you pick them from an area not too close to a path frequented by dogs! And wear gloves (obvs).

To emulate the barrel character, add a handful of oak chips or spirals - around 50 grams or one spiral will end with a lovely balanced beer that isn't too astringent, especially after the extended contact time needed with the brettanomyces fermentation profile.

Depending on how active your yeast is and how warm the ambient temperature is, secondary fermentation will take anywhere from 3 months to a year. I tend to check barrels from around 3 months over summer and around 5 when the weather is cooler. When you are happy with the stable gravity of 1.001 or below you'll be ready to think about packaging. The beer can benefit from a higher carbonation than "clean" beers so look toward 2.6-3 Co2.

There are some flavours and stages to be aware of during mixed fermentations. Pediococcus can produce Diacetyl and exopolysaccharides during its fermentation, but don't panic! A healthy Brett pitch will be able to break down the long chain sugars that cause a "rope" or shampoo like texture in the beer.

Like in lager fermentations, a diacetyl rest will help, so warming the vessel up to around 20C will encourage brettanomyces metabolisation pathways.

THP (Tetrahydropyridine) which presents as "mouse", "urine" or "cracker" flavour can also become present in beer. It can be hard to detect by some as the sometimes low pH can mask the flavour, the smallest pinch of bicarb to a sample can help make it more apparent. There is no real quick fix to this, it does age out and I've found this to take anywhere from 2-6 months up to a year. Anecdotally pitching a wine yeast as you're bottling yeast can help reduce the presence of THP but I wouldn't change packaging practices on your first time round.

So if either of these issues occurs, just give the beer a little more time (brewing mixed ferm takes a lot of patience, as well as even more cleaning!), and be aware these flavours can present in bottle or keg post packaging as well as during secondary fermentation.

Things to read and listen to that I found helpful and formative when homebrewing, and still refer to frequently.

American Sour Beers: Innovative Techniques for Mixed Fermentations - Michael Tonsmire
Historical Brewing Techniques: The Lost Art of Farmhouse Brewing - Lars Marius Garshol
Wild Brews: Beer Beyond the Influence of Brewer's Yeast - Jeff Sparrow
Yeast: The Practical Guide to Beer Fermentations - Chris White, Jamil Zainasheff
Master Brewers Podcast
The Sour Hour - Jay Goodwin (Rare Barrel)
Milk The Funk Wiki - an excellent sour beer resource

To emulate the barrel character, add a handful of oak chips or spirals

DATES & EVENTS

Join us at The Big Penny Social in London on the 29-30th September for the 2026 Brewers Congress and Brewers Choice Awards

8 August 2026 - 9 August 2026
THESE HILLS
Glynde Place, East Sussex
www.beakbrewery.com

26 August 2026 - 31 August 2026
EAST ANGLIAN BEER & CIDER FESTIVAL
St Edmundsbury Cathedral
www.burystedmundsbeerfestival.com

29 September 2026 - 30 October 2026
BREWERS CONGRESS 2026
The Big Penny Social, London
www.brewersjournal.info/congress

7 October 2026 - 10 October 2026
NOTTINGHAM ROBIN HOOD BEER FESTIVAL
Trent Bridge Cricket Ground
www.nottinghambf.camra.org.uk/

November 2026
CELTIC BEER FESTIVAL
St Austell Brewery Visitor Centre
www.staustellbrewery.co.uk

25 November 2026
BREWERS LECTURES LEEDS
Amity Brew Co, Farsley, Pudsey
www.brewersjournal.info/lectures

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