

THE 5TH INGREDIENT™
BEER30®



**How Pelican Brewing Used Beer30®
to Optimize Production and Drive a
\$550K USD Increase in Annual Sales**

There are four main ingredients in beer (water, malt, hops, and yeast). But there's an equally important fifth ingredient: data.

At The 5th Ingredient®, data is our source of truth. We understand that breweries face several challenges and a long list of things to do. In many cases, the old run-of-the-mill whiteboards, paper logs, and spreadsheets just won't cut it and important items get overlooked or forgotten about. To combat this, we created Beer30®, an all-in-one brewery management software, to help breweries track their data from grain-to-glass. Beer30 was designed to help brewers save time, increase profits, and brew better beer.

Over the past few years, we've found that some breweries have developed their accounting, financial, and material planning operations around an ERP system (such as Orchestrated Beer, Encompass, Ekos, CraftedERP, DEAR Inventory, Unleashed, Netsuite, SAP, Microsoft Dynamics, and others). However, they still needed a better system to manage their workflow and processes – such as task management, data from brewing, fermentation, filtration, BBT, packaging, lab quality, micro checks, packaging carb data, sensory – that goes beyond the use of spreadsheets. With this in mind, we've designed Beer30 as a completely modular system that allows you to pick and choose the features that fit your brewery.

Pelican Brewing, located in Pacific City, Oregon, utilized this modular flexibility and found that they could improve their process by implementing Beer30 alongside their existing ERP system. This allowed them to take a deeper dive into their everyday data, where they found actionable trends and patterns that they could not recognize before. As a result, they were able to optimize batch sizes and tank turn times, resulting in a substantial increase in the brewery's capacity, without spending a penny on physical equipment. The added beer production enabled an increase of \$550,000 in sales over the span of 1-year.

How Beer30's **Modularity** Complements a Traditional ERP

Beer30 by The 5th Ingredient is an all-in-one craft brewery management software that helps brewers focus on the quality of their beer while simultaneously helping them save time and increase profits. In short, our software allows breweries to track data from grain to glass.

Traditional ERP systems are great for inventory management and accounting. However, they fall short when it comes to visibility into specific processes like brewing and quality. This is where Beer30 comes in!

Beer30 provides real-time data and analytics that give breweries a complete picture of their brew-to-package process. This allows brewers to make informed decisions that improve efficiency and output.

In the case of Pelican Brewing, Beer30 was able to help them uncover inefficiencies in their brewing process that were costing them hundreds of thousands of dollars.

The Challenges Facing Pelican Brewing

Limited Visibility

Pelican Brewing was going through a period of rapid expansion. In order to support this growth, they decided to implement Beer30 alongside their existing ERP system to take a deeper dive into their brewing process. Prior to Beer30, one of the main challenges that Pelican Brewing faced was limited visibility.

Martin Bills, Director of Brewing Operations at Pelican Brewing, stated:

“ *(Before Beer30) we didn't have a place to go to really see where each tank was in the fermentation process. We had to go through numerous phase changes in our ERP that we use alongside it and we just never really knew where anything was. So what was really attractive to me at first was just the dashboard. I can look at the (Beer30) dashboard, see that fermenter five is on day 11 and that is your lager. Then, in one more click, I can see how that lager beer is progressing and that was not possible in a database.*

I already can tell with really that one click how things are progressing on a normal fermentation timeline, and that was a huge change. For us it was something that we kind of had with Ekos. It didn't exist at all in Orchestrated Beer. And it was a big, big, big advantage.” **”**

Tracking and Analyzing Data Across Products

Another challenge that Pelican Brewing faced was that it produces a large variety of beers. This made it difficult for the Pelican team to track and analyze data across all of its products.

Using Beer30, the Pelican team was able to compare performance and trends across multiple brands and identify areas for improvement. Their team learned a lot in the first two weeks, and even more in the first two months.

Quick & Easy Implementation

Finally, Pelican Brewing was looking for a solution that was quick and easy to implement and would scale with its growth. At The 5th Ingredient, we know that time is money, which is why

our implementation process is designed with the brewer in mind. We know that breweries can't afford too much time spent trying to implement new processes, so Beer30's implementation is meant to be seamless.

The Pelican team stated:

“Having just recently gone through a long ERP system change that took months, the implementation time for Beer30 was night and day. New database was up within hours and had most information (recipes, ingredients, data trackers) entered in a couple days. At the size we are currently and still growing this was a massive help for adjusting to another new system. While we are committed to using the new ERP for inventory and accounting functions, we have found a balance between the two systems. The ERP is used for quantitative data while Beer30 is used for qualitative data and this is the info we need to make decisions every day. Beer30 serves as our QC and batch tracking database.”

The **Benefits** of Beer30 for Pelican Brewing

Beer30 is built with the brewer in mind.

Our user-friendly interface and wealth of data analytics allow breweries to quickly identify brewing trends and make informed decisions about their process. In the case of Pelican Brewing, Beer30 was able to help them overcome challenges and reduce their inefficiencies that they were unaware of prior to implementation. Here's what they had to say:

“Overall, Beer30 has been a great tool to bring on and has brought a lot of light to daily processes that either lived in notebooks and binders or were muddled in an ERP database that wasn't really designed for qualitative data. The system is intuitive, user friendly, and easy to train staff to use. Pulkit and Ryan have been great to work with since day one and are very responsive to technical issues, troubleshooting, and new process ideation. As we continue to grow and find new challenges, I know Beer30 will be ready to take them on and we're going to accomplish a lot of epic stuff together.”

Beer30 enhances visibility throughout the production process.

Beer30 offers extremely detailed and customizable production logs for brewing, cellaring, filtration, BBT, packaging, and quality control. Going far beyond just the basic ingredient and volume tracking in the typical ERP, Beer30 empowers the brewer to track all of their process and quality parameters, from mash strike water temperature to bottling line BPM, and everything in between. For Pelican Brewing, Beer30 was able to bring all of their production logs into a single source of truth. Furthermore, Beer30's Batch History reporting pulls the entire production process into a comprehensive report for each batch of beer, which gave the Pelican Brewing team the ability to understand how upstream changes truly impacted the yield and quality of each finished batch. This would generally live in anywhere from 7-15 spreadsheets for any brewery using different ERP systems without Beer30.

Beer30 helps brewers consistently brew to the highest standard.

Variability in the production process is one of the largest sources of inefficiency for any brewery. Whether it's changes in raw materials over time, differences in yeast generations, inconsistency in performance between team members, or mechanical issues, there are countless sources of variability from batch to batch. Using Beer30, Pelican Brewing was able to easily compare process and quality data from batch to batch, identify when something was out of specification, and use the batch history reporting to quickly identify the root cause. Additionally, Beer30 includes customizable tolerance levels for recipe parameters throughout the brewing process, with dynamic color coding and alerts when something is out of specification. With these real-time text and email feedback alerts, the Pelican Team was able to respond to issues quickly and make corrective actions early on before the issue worsened or affected future batches. When there are potential errors on brew day or during fermentation, each day matters to avoid production delays.

Beer30 is a critical tool for process improvement in the brewery.

With Beer30, breweries can easily track process improvement projects and evaluate their efficacy. Beer30's recipe version control allows brewers to track multiple recipe versions as they make changes, and Beer30's charting tool easily allows brewers to compare the performance of experimental batches to historical batches. Using Beer30 to track and evaluate multiple process improvement initiatives, Pelican Brewing was able to drive improvements in their mashing, lautering, and whirlpool process to improve overall brewhouse efficiency and yield. In the cellar, the Pelican Brewing team used Beer30 to evaluate multiple changes in their fermentation schedules and achieve a substantial reduction in tank turn time. And continuing through the process, they were also able to use Beer30 to dial in the filtration and packaging processes for a further improvement in the overall brew-to-package yield.

By setting week-over-week targets for brew-filter-pack metrics for their core brands and visually seeing the results on the Dashboard, the Pelican team was able to start ensuring that the yields were hitting the required weekly yield - and when they did not, the team made process changes.

The mantra of 3 clicks is a real thing. From brewing, to the dashboard, to whatever info I'm looking for, is available within 3 clicks. Tracking tanks is super easy with day counters on the dashboard and tank action automation built into the recipes. This provides a baseline if your batches are progressing on the timeline you expect. The charting functions throughout the system help provide quick reviews and in-depth analysis of brands batch to batch. Yeast tracking is a breeze with visibility on where your generations came from. Tank tags keep the entire staff in the loop on what each tank is doing. Working with the Beer30 dev team, we were able to build a diacetyl testing module for which data can be tracked by batch and user. This helps the QA department in their goals of passing quality checks and will help build sensory panel data about participant's thresholds to certain compounds.

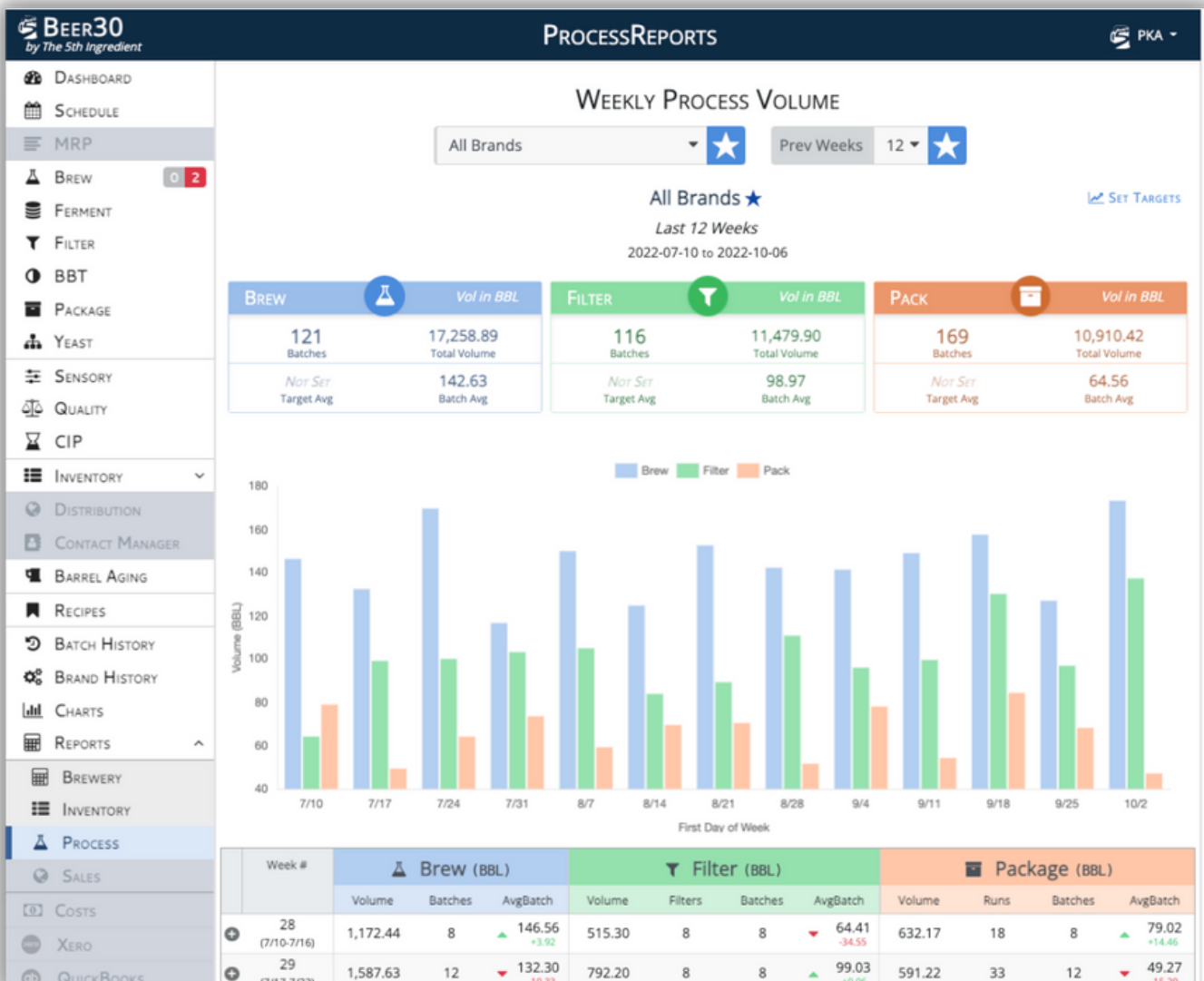
- Jason Schleich, Brewery Manager



The Numbers Speak for Themselves

By implementing Beer30 alongside their existing ERP system, Pelican Brewing gained the visibility to identify several sources of process variability and areas for improvement in the brewery production process. Furthermore, they used Beer30 to track their performance improvement projects and dial in efficiencies overall. As a result of these efforts tracked in Beer30, Pelican Brewing was able to:

- 1 Increase their average brewhouse volume output per batch by 15%.
- 2 Increase average fermenter fill volume from 185 BBLs to 205 BBLs.
- 3 Reduce fermentation time before cold crashing from an average of 14 days to 8 days for ales and from 30 days to 15 days for lagers.
- 4 Significantly reduce tank time turn time and increase total cellar tank capacity.
- 5 Increase average overall yield from brew to package by 12%.
- 6 Due to increases in beer yield, average COGS decreased by \$15-20 per BBL.
- 7 Added beer production enabled an increase of \$550,000 in sales over the span of 1-year.



Brew Better with Beer30

From inventory management to accounting to the brewing process and beyond, the full Beer30 suite is designed to help make your life easier and your brewery more successful. Beer30's range of features and functions can help breweries of all sizes increase their efficiency and output. By taking a deeper dive into data trends and patterns, you can make the necessary changes to improve the brew-to-package process.

Here are a few of the benefits of Beer30 that brewers love:

- Brand recipe customization that include:
 - Setpoints
 - Brew metrics
 - Fermentation additions and actions on different days of the process
 - Target metrics and tolerances
 - Ready to package metrics
 - Real-time text and email notifications as beers deviate from their setpoints in tolerances
 - Unlimited self-created custom fields
- Perform in-depth data analysis with your process data:
 - Yields
 - Fermentation profiles
 - Data Visualization (graphs) across all of your brands
 - Yeast genealogy trees
- Sensory profiles and analysis of cause-and-effect relationships across different process aspects all in a single location
- Batch History from brew process to packaging, with full traceability
- Checks and balances between stages of brewing, filter, ready-to-package, and ready-to-release, with signoff from Head Brewers and Managers
- Detailed task management that features brewery specific tasks not included in current ERP solutions, such as:
 - Fully customizable CIP Logs
 - Tank Cleaning
 - Brewhouse Cleaning
 - Packaging Line Cleaning
 - Raw Material Ingredient Substitutions
 - Dry Hopping Schedules
 - Yeast Harvesting and Repitching
 - Gravity Based and Day Based Actions
- Text and email alerts throughout the process side to make sure real-time visibility is present
- Automated daily activity reports and emails for all process actions, removing the need for end-of-shift emails
- Unlimited users to accommodate the size of your team and allow for different permissions based on the roles you set
- API Integration with:
 - Temperature sensors
 - Gravity sensors
 - DO sensors
 - Packaging downtime sensors
 - Any web-enabled data source
- Real-time data that is mobile, tablet, and laptop-friendly

The Missing Link in Your Brewing System

Thanks to our Beer30 software, Pelican Brewing was able to connect crucial data sources to get a real-time view of their brewing process. The data that was brought to life through our software has allowed Pelican's team to make better decisions on where they can increase efficiency and save time and money. In addition, Beer30 has allowed them to focus on what really matters: brewing beer.



CRAFT BREWERY

DATA MANAGEMENT SOFTWARE | V10

- \$0 in Onboarding Fees
- WhatsApp Chat Support
- 90-min Startup Session
- Unlimited Users



GRAIN TO GLASS

DATA TRACKING MADE SIMPLE!

www.the5thingredient.com

By implementing Beer30 at your brewery, you can access the same benefits, including the kind of real-time data analysis and brewery dashboards that helped save Pelican Brewing over \$200,000. **To find out more about how Beer30 can help your brewery, reach out to us and book a demo so that you can brew more and brew better!**

Customize Your Features

Beer30[®] is a modular platform designed to fit your brewery's needs. Start with our industry-leading Production Suite at the core of our software, and add individual modules to customize Beer30 for your needs. Add in bundles to maximize your savings or choose your individual modules.



PRODUCTION SUITE

The production suite is the core of Beer30 Software.

CORE SYSTEM

- Dashboard & Tank Management
- Raw Materials Inventory
- Yeast Genealogy
- Recipe Management
- Scheduling & Task Management
- Custom Brew-to-Package Process

- Batch History Report
- Process Data Charts
- Reports (including BROP and Tax Compliance)
- Brewery KPI Scorecard
- Email & Text Notifications
- Contact Manager

PLATFORM & SUPPORT

- Web App (cross-device compatible)
- Unlimited Users
- Permissions Controls
- WhatsApp Group Chat Support
- 90-Minute Onboarding
- Unlimited Live Trainings



BREW MORE BUNDLE

Add the full business and financial package, or choose specific modules for your brewery.

INVENTORY & COGS MODULE

- Packaging Supplies Inventory
- Ingredient Warehouses & Transfers
- Purchase Orders
- Lot Traceability
- Batch Cost of Goods Sold (COGS)

DEMAND PLANNING MODULE

- Sales Forecast
- Demand Report
- Production Forecast

MRP MODULE

- Raw Material Inventory Forecasting
- Package Supplies Forecasting

ACCOUNTING SYNC MODULE

- QuickBooks Online or Xero
- A/P & A/R Sync
- G/L Journal Sync
- Chart of Accounts Customization

SALES MODULE

- Finished Goods Inventory
- Finished Goods Warehouses & Transfers
- Sales Orders
- Delivery



BREW BETTER BUNDLE

Add the full quality tracking package, or choose specific modules for your brewery.

QUALITY MODULE

- Packaged Beer Carbonation Data
- Customizable CIP Logs
- R&D Tracking
- Lab QC Data

SENSORY PANELS MODULE

- Sensory Evaluation
- Compound Training
- Triangle Testing

FERMENT TESTING MODULE

- Pass / Fail VDK Test Logging Panels



SPECIALIZED MODULES

Add on either of these specialized modules.

SALES TRACEABILITY MODULE

- Batch # Tracking on Sales Orders

BARREL AGING MODULE

- Barrel Aging COGS & Blending