Recalls, Recipes and Real-Time Data

Seven ways ProcessPro drives success for food and beverage manufacturers
About the Author

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Daniel has been with ProcessPro a division of Open Systems Adaptable Solutions since 1999. Currently Director, Product Strategy, Daniel focuses on driving overall market success by ensuring the products meet both current and future market demands. Leveraging his extensive understanding of process manufacturing, the unique business trends of this industry and information gathered from market analysis, customer feedback and regulatory compliance, he drives product decisions. Daniel has a passion for connecting the benefits of ProcessPro’s ERP solution to batch process manufacturers and helping to effectively solve their key business challenges.

Previously, Daniel held a variety of positions within the company including implementation, account management, product consulting, product management and sales which has provided him an aptitude for manufacturing and the nuances within the food and beverage, dietary supplement/nutraceutical and specialty chemical industries. His diverse experience with the customer base and within ProcessPro provides a strong foundation for his position.

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The food and beverage industry is complex, fast-paced and closely regulated by the Food and Drug Administration (FDA) and current Good Manufacturing Practices (cGMP). Food and beverage batch process manufacturers are required to reliably deliver consistent, quality products at competitive prices and on demand to their consumers, while being prepared for recalls, meeting all government regulations and managing a healthy bottom line.

This complexity isn't likely to simplify and the pace of change isn't likely to slow down. For instance, according to Food Processing, packaged food shipments are surging and grocers’ preferences for more profitable private label brands are driving processors with any excess capacity to produce both branded and private label products. This can create new challenges for managing formulas, as well as inventory control for batch processors.

Tracking and accounting for ingredients may also become more complicated as changing U.S. demographics influence the way processed food is manufactured. For instance, the U.S. Census Bureau calculates that the average household is now made up of 2.55 people, down from 3.67 from about 65 years ago. Ten percent of household heads are over the age of 75. Smaller household sizes and a greater proportion of older heads of households may drive packages and serving sizes to become smaller. In addition, the food needs of aging baby boomers, such as texture modifications that allow for easier chewing and swallowing, are on the radar of food manufacturers to ensure that their formulas and recipes stay relevant to changing demographics.

In the midst of all these demands, technology should be the one factor that makes operations efficient and integrated, not more complicated. Unfortunately, most software providers have lagged tremendously in creating applications that address the unique needs of batch process food and beverage manufacturers.

At ProcessPro, we fill that gap.
ERP For Process Manufacturers

Our robust enterprise resource planning (ERP) system is specifically designed for batch process manufacturers in the food and beverage industry. It tackles your mission-critical business functions (manufacturing, quality, inventory, financials and sales), while linking all of your information through integrated business intelligence functionality that allows you to store, share, track and report information using one common database and all in real time. It has passed the strictest audit processes required by the FDA.

Not all ERPs are created equal. You have specific needs and scenarios that can’t be addressed with an ERP designed for other industries. In the following pages, we explore these common challenges and the ways in which we can help you succeed:

- Real-time inventory
- Lot tracking
- Recipe management
- Recalls
- Formula management
- Real-time financials
- New product line development

Batch process manufacturing is all we do. With our one complete solution, you have the power to make smarter decisions more quickly and profitably.

Not all ERPs are created equal.
Real-Time Inventory

Live inventory updates and projections to maximize efficiencies.

**Scenario**
A snack foods company is tracking its operations using multiple systems and sources of information. Data is entered manually, which increases the risk of input errors and slows operations. The disparate data doesn’t allow for clear visibility into inventory levels during the production process, and negatively impacts the ability to forecast inventory needs.

**Solution**
A batch process manufacturing ERP delivers real-time inventory information to give you an immediate understanding of inventory levels and location. With it, you have live inventory updates and on-hand, allocated and projected inventory levels by combining batch tickets, sales orders, purchase orders and current inventory levels. This gives you the ability to maintain accurate, manageable inventory, improve operational efficiencies and drastically reduce the risk for data entry errors.
Lot Tracking

Lot tracking must be the backbone of your ERP, not an afterthought.

**Scenario**
Sugar arrives at your facility and will be used in multiple batches or recipes. You must know every place where the sugar will be used, which products it is used in and where each product is located. Lot traceability is critical for managing recalls, expiration concerns, cost variability and minimizing lost inventory – not to mention the impact that raw material variability and shelf life can have on the consistency and quality of the finished product.

**Solution**
An ERP designed for batch process manufacturers can provide real-time visibility to your lotted inventory, ensure accuracy in material movements and consumption and provide confirmation of whether the right item is being utilized in a batch or process. It allows you to more easily isolate a food safety issue, and provides traceability of ingredients through the entire production process. It will also have built-in, ready-to-go functionalities to alert workers and managers when ingredients are nearing or past their expiration dates. With this level of detail, ProcessPro gives you the power to know the what, where and when of your inventory to maximize efficiencies.
Recipe Management

Precisely manage your specific volume needs and use of batches.

Scenario
The way you track and account for ingredients may change throughout the production process. For instance, you may purchase ingredients in kilograms, stock them in pounds and count them by the bag. Furthermore, as ingredients move through the production process, some volumes may be lost due to adhering to a mixing vessel, line loss, evaporation, etc. These unique batch process considerations must be taken into account by your ERP to ensure that inventory is planned and managed adequately, costed correctly and that your finished product is exactly what the customer ordered both in terms of quality and quantity.

Solution
With ProcessPro, you can deftly handle unit of measure and volumetric conversions and account for yield or loss so that when an order is placed, the system automatically accounts for it in all aspects of planning. This ensures the proper quantity of materials are purchased, staged or produced to accurately meet demands.

Account for all aspects of volume.
Recalls

With industry-specific ERP architecture, you can generate the reports you need in minutes instead of hours.

**Scenario**
A lot has just been recalled, and now you need to know all of the details regarding that lot number. If it is an ingredient or raw material, you need to know where it was used and what other products it was used in so that you can recall any products it contaminated or contacted. If it is a finished product lot, you need to be able to report on all of the ingredients used in production of the finished good, including the date and time each was used. In either case, you must be able to produce a report proving traceability in accordance with FDA standards.

**Solution**
With ProcessPro, you can run reports on lot number, raw materials and more. And because the architecture is specific to your industry and the data is integrated across your organization, you’ll be able to quickly identify any problem areas to address, as well as generate the regulatory reports you need in minutes.

Identify problem areas quickly.
Formula Management

Leverage your ERP to ensure your product tastes, acts and preserves the same way every time.

**Scenario**
You are a craft beer brewer with a loyal customer base, and it is paramount that your product is consistent. Every ingredient must pass your strict quality requirements, formula management practices and quality checks performed at each stage and on the final product. If an ingredient or product falls out of range, you need to stop production immediately. If this scenario occurs, all of the steps must be performed, recorded and reported quickly, without losing valuable production time.

**Solution**
Gone are the days when this data is stored on a spreadsheet, disconnected from the rest of production. With a batch process ERP, Formula Management should be a core function, including the use of mixed units of measure, ingredient parameters, recipe or formula instructions and other needs, such as security and procedures for editing and managing formula information. Your ERP should also allow you to review past formula changes for comparing the different inputs with the results. For instance, as a craft beer brewer, you may change the alcohol content of one of your products. A historical log of formula changes is needed for analysis and for potential regulatory reports.
ProcessPro has an established formula management system that includes:

- Reliable lot and tracking solution
- Effective batch sizing and scaling for use in production
- Robust R&D functionality
- Flexible quality control and management
- Ability to meet all compliance requirements: FDA, cGMP, Bioterrorism Act

Some generic ERP companies will try to attach formula management capabilities as an add-on module. With the high stakes of your business and your unique specifications and requirements, make sure the ERP you are considering includes formula management as a core function.
Real-Time Financials

Real-time financials give you an immediate picture of your operations and profit.

**Scenario**
It’s the holiday season and you’re awash in trade promotions and bill-backs. Soon, it will be time for year-end financials, but you’ll have to shut down operations to complete them because you don’t have access to real-time financial information.

**Solution**
ProcessPro gives you the ability to perform unobtrusive year-end financials by drilling through transactions and interacting with data without having an impact on your floor operations. Other capabilities include:

- Process bill-backs and adjustments
- Identify and manage landed cost, including the ability to add cost mechanisms into it
- Add indirect charges, such as machine use
- Detailed, interactive manufacture and operations reporting
- Ability to attribute landed cost

Unobtrusive year-end financials.
New Product Line Development

Isolate, test and manage iterations without impacting your mass production side.

**Scenario**
New product development is key to your continued success, whether you are developing your own products or being asked to create them for a customer. Either way, you’ve conceptualized the product and now it needs to be created, tested and approved before going to market. The development process may involve many formula adjustments, test runs and cost reviews prior to approval, all without affecting the mass production of your original product.

**Solution**
Food and beverage manufacturers have to respond to customer trends and tastes, so the ability to conduct research and development activities is critical. With ProcessPro, you can store new product development information and various product iterations in the ERP system without ever impacting live production data. This allows you to maintain and manage R&D information; including ingredients, costing and margins, instead of attempting to maintain this information within your mass production data and fight through the clutter. In addition, the R&D formula can be copied to the mass production environment once approved. The flexibility of our solution gives you the power to evolve as your customers demand - without losing efficiency, reliability or data integrity.
Avoid the headache and costly mistakes of an ERP system that doesn’t understand industry best practices or have the flexibility to respond to your needs. At ProcessPro, we deliver a single, real-time solution with interactive dashboards that provides everything from broad, graphical snapshots of productivity to granular details of project financials.

As a leading mid-market ERP software solution for the process manufacturing industry, we pride ourselves on our ability to serve the unique needs of the food and beverage industry. Our customers can have peace of mind knowing they have a single source to deal with at every phase – no resellers who lack support or third-party installers who lack knowledge of the software. And rather than off-shore or third-party technical support, we provide live, dedicated assistance from our team at our home office.
ProcessPro Meets Your Business Needs

**Manufacturing**
- Formula and Recipe Management
- Production Planning and Scheduling
- Manufacturing Execution
- Allergen or Other Key Attributes/ Chemical Properties

**Financials**
- AR and AP
- General Ledger
- Lot / Batch Costing
- Project Costing
- Payroll / HR

**Quality**
- Quality Control
- Lot Traceability
- Certification and Validation Tools
- FDA Compliance and Validation
- GHS / SDS

**Sales**
- Quoting and R&D
- Order Entry
- CRM
- Contract Management
- EDI

**Inventory**
- Purchasing
- Inventory Control
- Material Requirements Planning
- Warehouse Management
Appendix: Primrose Candy Company Case Study

Primrose Candy Company manufactures primarily hard candy, chewy candies such as caramel and salt water taffy, and popcorn confections. In addition to candy, Primrose also produces private label nutraceuticals. With over 80 percent of the business derived from private label and contract manufacturing, Primrose not only has to meet its own high standards but also the scrutiny of those who put their name on the final products.

**Challenge**

Primrose was using antiquated methods of tracking business operations in multiple sources and on various systems. Data management was entered manually, requiring duplicate data entry and increasing the opportunity for errors. Primrose desired real-time financial and inventory control information that would alert them when inventory was low and what items were needed to fulfill orders. The company was experiencing an increasing need for quality control measures, a scheduling system that coincided within one system and a sound formula storage system.

**Solution**

Primrose implemented ProcessPro, a fully integrated and industry-specific ERP solution that afforded the company the ability to track real-time inventory, create production schedules and measure quality control. Since then, Primrose has continued to meet its growing demands by adding more features and performing necessary upgrades.

**Software Add-on Applications**

- Warehouse Management Solution (WMS)
- Business Intelligence
- CRM

**Benefit Overview:**

- Real-Time Inventory
- Production Scheduling
- All Inclusive System
- User Friendly
Appendix: Primrose Candy Company Case Study continued

**Results**

**Real-Time Inventory**

Primrose’s inability to effectively track inventory levels throughout the production process without pulling manual paperwork created a necessity for a real-time physical inventory solution. With the use of ProcessPro, they are able to maintain accurate, manageable inventory levels, reducing waste and lag time. They have experienced a great improvement in operational efficiency through the use of WMS, which provides virtually error-free inventory transactions via hand-held scanners.

**All-Inclusive System**

Primrose recognized the value in a fully integrated system that was all inclusive. They previously utilized Microsoft® Excel for scheduling and storage of formulas and were utilizing a third-party module for their accounting needs. ProcessPro offered them a complete system, an accounting package, warehouse management, R&D, MRP and more. ProcessPro also provided a sound and secure formula storage option aiding to consistency in quality.

**Production Scheduling**

With the dynamic of Primrose’s manufacturing process they required a flexible scheduling system that had the ability to handle different machines, shapes and sizes of production. ProcessPro’s Advanced Scheduler feature has allotted for Primrose to schedule a batch for multiple days and multiple routes. They have experienced a dramatic reduction in errors in both work flow and shipping.

**User Friendly**

ProcessPro provided a system that Primrose could use out of the box without major modifications. The staff found the system to be very user friendly and were pleased with the painless transition, accessibility of support staff and the Docs on Disk series that allows users to view solutions while working in the system.
Lawler Food Incorporated is a family-owned and operated manufacturer of gourmet cheesecakes, cakes and pies that are served in restaurants, hotels and other foodservice establishments around the world.

**Challenge**
Lawler struggled for almost a decade with their previous ERP software system. The first of three main issues was the inability to use the Material Requirements Planning (MRP) functionality within the system; an improper fit left their business with individually scheduling for three plants manually, which cost them nearly two days worth of labor. Secondly, the scanning aspect of their previous software was a third-party add-on that didn’t receive any support when issues arose. Finally, the accounting was operated via a third-party add-on and didn’t function as “true” accounting software, decreasing productivity with the accounting staff and leaving them again stranded without product support to navigate any issues.

**Solution**
While evaluating their previous ERP system, Lawler decided to implement ProcessPro's ERP solution, a fully integrated and industry-specific software that strongly matched their company’s business operations and objectives.

**Software Add-on Applications**
- Warehouse Management Solution (WMS)
- Research and Development (R&D)

**Benefit Overview:**
- Scheduling
- Warehouse Management
- True Accounting Package
- Easy Sales Order Entry

**Installation**
Unlike previous ERP system installations that were difficult and included numerous contacts for each software component, the implementation with ProcessPro was performed smoothly.
“We can’t say enough about our implementation specialist,” said Mike Collier, Director of IT, Lawler Food Incorporated. “He was familiar with every aspect of the software and could provide instant feedback to any ideas that we threw at him. Implementing with ProcessPro went really smooth and had the flexibility to go at the pace that was most comfortable for us.”

Results

Scheduling

Scheduling all three plants through ProcessPro’s MRP versus being forced to do it manually saved tremendous amounts of time and labor – from one and a half days of work down to only a half day. MRP has also helped them maintain adequate amounts of raw materials for scheduling timely batch production. “We now know what we need to manufacture versus guessing what items we need to produce,” said Collier.

Warehouse Management

Utilization of ProcessPro’s fully integrated WMS system increased Lawler’s inventory accuracy and minimized shipping errors and resulting returns. Now able to better utilize their warehouse space, they’ve improved their logistics and distribution operations.

True Accounting Package

Combining a complete billing and accounts receivable system with extensive sales analysis reports with account payable ability to create checks, track credits, discounts, warning generations to help prevent losses, etc. gave Lawler the capability to effectively manage business expenses. “Our accounting department loves it – it’s exactly what they’re used to operating,” said Collier.

Easy Sales Order Entry

ProcessPro’s Order Entry generates, schedules and maintains sales orders and sales order backlogs. The ease of use within the software allowed Lawler simple screen navigation – gone were the days of closing each screen to run a new inquiry – they were able to have multiple screens open at once saving them time and frustration.
About ProcessPro

ProcessPro tackles your mission-critical business functions (manufacturing, quality, inventory, financials and sales), while linking all of your information through integrated business intelligence functionality. Gain total information visibility with a robust ERP process manufacturing solution for the food and beverage industry – in real-time – so you can run more efficiently and grow more profitable.

The food and beverage industry is complex in nature, fast paced and closely regulated by the FDA and current Good Manufacturing Practices (cGMP). Food and beverage process manufacturers are required to consistently bring quality products, at competitive prices and on demand for their consumers while managing a healthy bottom line. At ProcessPro, we believe by providing food and beverage manufacturers with the right ERP capabilities, you will be proficient in managing these demands while growing more profitable with satisfied customers. With the robust functionality of Process Pro and our team of experts, you will have the essential technologies to tackle challenges at any step in your operations.