How an ERP Tracks, Traces and Manages Quality for the Food and Beverage Industry
As a batch process manufacturer in the food and beverage industry, you’ve got a lot on your plate. By nature, your work is complex and fast paced. The tight regulations that govern your work can change quickly, as can consumer demands. Knowing what makes up your inventory, the status and quality of that inventory, the expiration dates and where each component is at all times are paramount. Can you manage all of these challenges while keeping a healthy and growing bottom line? You can, but excelling in this industry with old, outdated or manual processes is no longer feasible. Critical business functions like inventory and quality must be integrated along with the ability to share and track this data across your organization.

Why An ERP Is Important

An enterprise resource planning (ERP) system tracks information in all areas of your organization and specifically in critical areas such as manufacturing processes, planning and execution, inventory management, quality assurance, Food and Drug Administration (FDA) compliance, financials, sales and more. It integrates all of this data and provides the ability to store, share, track and report information using one common database.

Although many manufacturers start out small and are able to manage these processes manually, things quickly become much more complex and error-prone as the company grows. An ERP’s real-time functionality and instant access to information provides you with the business intelligence you need to stay ahead.

Not all ERPs are created equal. As a batch process food and beverage manufacturer, you have specific needs and scenarios that can’t be addressed with an ERP made for other industries. Here is how an ERP designed for the batch process market can help you track, trace and monitor your inventory and ensure quality so that your data can propel you ahead, not slow you down.

Other Key Track And Trace Features In A Batch Process Manufacturing ERP

- Formula and Recipe Management
- Production Planning
- Production Scheduling
- Nutritional Content/Chemical Properties
- Certification and Validation Tools
- GHS/SDS
- Inventory Control
- Material Requirements Planning
- Warehouse Management
Detailed Track And Trace Capabilities

Food safety is arguably one of your most important issues, so the need for detailed tracking and tracing cannot be overstated. It must be the backbone of your ERP, not an afterthought. Make sure your vendor understands that this capability is central to your operations and viability as a company – not an add-on module that is offered because the vendor wants your business.

Lot Tracking

You need to know not only the lot number of where your products are located, but when they are added to a recipe, how much, and when in the process. For instance, when sugar is used in multiple batches or recipes, you must know every place where the sugar was used, which products it was used in and where those products are located. If your facility handles a common food allergen like tree nuts, you need to track these allergens for storage and handling, use, planning and tracking in end-products to avoid recalls of undeclared allergens, manage cleans, etc. An ERP with this level of detail allows you to more easily isolate a food safety issue and forecast the extent to which a product has been affected, including which items have been contaminated and where they originated.

Expiration Dates

Knowing how fast a product needs to be consumed before it passes its expiration is a constant concern. An ERP designed for batch process manufacturers will have built-in, ready-to-go functionalities that alert workers and managers when ingredients are nearing or past their expiration dates.

Managing Quality

In a highly regulated industry such as yours, the ability of an ERP to perform specific quality management tasks is essential. Consider these unique scenarios and how the right ERP can help you operate more quickly and cost-effectively.

Recipe Control

In many discrete manufacturing industries, the unit of measurement doesn’t change: One bolt remains one bolt throughout the process. But in your world, you may be purchasing ingredients in kilograms, stocking the item in pounds and counting them by bag, so your software must be able to deftly handle these types of conversions. It must also be able to log quality aspects of your materials, such as acidity, and alert managers to stop production if parameters fall out of range. If an adjustment needs to be made, tight controls around recipe management allow only certain individuals to change recipes and approve those changes for use in production.

Accounting For Yield

You need to plan for yield loss in your process, and an ERP designed for the batch process industry understands this need. It can take into account the loss of ingredients, such as through evaporation or adhering to a container or mixing vessel, in order to help you determine how much inventory to buy, stage and use. These capabilities are central to ensuring the recipe is executed properly every time and that the quantity ordered is the quantity delivered.
Conformance

Your ERP should provide features for non-conformance logging, corrective and preventative action (CAPA) reporting and document control as part of its quality management features. This allows you to electronically manage and report when there is an error in the product, what went wrong and where, as well as how the issue will be resolved. This better positions you and your organization when dealing with regulatory or certification concerns and practices.

Don’t Settle For Generic

Your whole business is riding on customer satisfaction, safety and regulatory compliance. Operating with manual processes or storing information on disparate spreadsheets is simply too much of a risk. A batch process manufacturing ERP with embedded best practices like lot traceability, recipe management, compliance and other features will be able to manage your operations and give you greater visibility into your data in ways no other tool can. It will improve your business efficiencies, save you an enormous amount of time and money and create a competitive advantage that will help you stay ahead.