

# BatchMaster ERP for Nutraceuticals

*Helping you help us  
live long, active and  
healthy lifestyles*



## Introduction

To satisfy today's ever growing number of health conscious people looking for the next, best supplement, BatchMaster Software offers an industry specific ERP solution that helps nutraceutical companies streamline their operations and bring products to market, faster and cheaper, while complying with ever more stringent regulatory mandates. Whether you private-label, co-pack or produce your own line of protein powders, vitamin and mineral blends, or dietary and herbal supplements, BatchMaster ERP for Nutraceuticals supports your unique manufacturing requirements in product development, production, quality, costing, and compliance, while supporting all of your sales, accounting, warehousing and distribution needs.

## Overcome Industry Challenges

Nutraceutical manufacturers who rely on paper-based and people-intensive processes to document every step in their production processes are finding it ever increasing difficult to comply with ever stringent FDA regulatory mandates and follow current good manufacturing practices (cGMP). These companies are looking manage their Master Batch Records (MBR) electronically within their ERP solution, which means all product development, batch manufacturing and quality transactions associated to their finished goods should be secured in a centralized database, which serves as a single record of truth.

From a financial or liability perspective, there are nutraceutical companies that are broken up into multiple divisions or business entities, ranging from sales to marketing to manufacturer to distributor, where manufacturing and distribution may be managed by one or more outside contract manufacturers. Each business partner wants to manage their own process requirements (e.g. product development, production), and wants the means to easily transfer ownership of products and share data amongst partners.

Let's address a few challenges that were faced and overcome by many customers employing BatchMaster ERP:

### Maintain Complete Master Batch Records:

Nutraceutical manufacturers need an electronic method to efficiently document and associate formulas, production jobs, procedures, processes, transactions, and journals to a finished good in a MBR, in a way that is compliant with 21 CFR Part 11 Regulations. Other MBR management functions required include built-in document management, automated workflows, audit trails, electronic signatures, versioning control, and archiving.

### Meet Label Claims:

Meeting label claims for specific serving sizes of tablets, capsules, powder and liquid blends can be challenging. Product developers are looking for help in creating and scaling formulas for thousands of units that include one or more active ingredients with varying potency levels, which alter quantity levels or call for substitutions.

### Ensure Product Quality:

Nutraceutical manufacturers need preventative controls in place to quickly and effectively test products, check equipment, investigate and determine the impact of all encountered quality issues, and correct existing procedures.

### Expedite Product Recalls:

Lot traceability is of major concern due to the nature of nutraceuticals. The creation and assignment of lot numbers at the time of receiving and production is a challenge to many manufacturers, so automating these processes is desirable. When performing a product recall, the ability to quickly track and trace suspect products from suppliers to customers, from customers to suppliers or anywhere within production in minutes, not in days, is a requirement.



## Optimize Production Scheduling:

Demand planning and production scheduling of various stages, such as mixing, encapsulating, compressing, polishing, and packaging, are all important. But especially critical for those companies who make to stock or make to order their own gel encapsulations, because these batch production jobs need to be effectively back scheduled or run in parallel with the liquid blends that will fill them.

## Increase Margins and Profitability:

To increase the bottom line, nutraceutical companies need to analyze their expected vs actual costs from conception thru production to customer shipments. Managers want better visibility to raw material costs, based upon last purchased, standard and projected prices, and accurately capture and track the static, scalable and tiered costs associated to labor, energy and other resources. In addition, purchasing wants to negotiate better terms for those raw materials that demand planning has determined there is a consolidated demand for. And to increase the top line, sales recognize that they can retain existing customers and gain new ones with demonstrated predictability, scalability and compliance across their company's operations.



## Key Manufacturing Features

BatchMaster ERP for Nutraceuticals streamline samples, formulation, production, quality, costing, compliance, planning, and scheduling using preconfigured templates, automated processes, and customized dashboards and reports.

## Master Batch Record Management:

A full lifecycle history of a plant's finished goods is maintained in BatchMaster ERP's MBR. All relevant transactions from concept through production to shipping are captured. The solution supports built-in document management, automated workflows, audit trails, electronic signatures, versioning control, and archiving to ensure compliance.

## Item Physical Properties:

The unique physical characteristics of finished good tablets and capsules, including size, shape, color, and thickness, as well as rows, cavities and other BOM properties, are all addressed in the formulation, QC and QA processes.

## Lab and Samples:

Internal and external requests can be managed from sales quotation and formulation to production and acceptance, including recording all customer communications during this cycle. Finished goods recipes address serving sizes, product types and size, and M thousand quantity yields. In addition, recipes can create any required intermediate gels, powders and syrups used as a base in your finished goods. With visibility to ingredients' physical characteristics and potency levels, formulas can be quickly adjusted to meet their label claims for given serving sizes, based upon expected losses (e.g. potency degradation). In terms of analytics, developers can perform "what if analysis" and compare formulas side by side. And when necessary, theoretical items and substitutions can be used in the formula calculations. Multilevel workflows expedite the review and approval of formula raw materials, costs, quality and packaging across departments. Most importantly, all formula transactions, including management sign offs, are captured and maintained in the MBR.

## Inventory:

BatchMaster ERP captures, manages and reports on inventory levels in terms of weight, volume and units, as well as quality statuses, expiration dates, lot numbers, and strengths. An item's organic, Kosher and Halal certification documentation and expiration dates are maintained with BatchMaster ERP.

## Planning and Scheduling:

Standing orders, sales orders and forecast entries can be used as finished goods demand inputs; inventory levels, batch production jobs, and receipts can be used as supply inputs. An accurate, detailed plan for batch production orders can be generated down to the various production steps or process cells within the production lines. Planning and scheduling takes into account the rates and capacities of mixing, encapsulating, compressing, polishing, and packaging process cells. Multiple batch jobs can be sequenced and scheduled in series or parallel, based upon the final step in producing a finished good. For example, gel cap production produced in parallel with fill liquid products as well as managed independently. To ensure these batch jobs yield their expected results, the system can generate the required purchase requisitions of specialty ingredients, hard caps and other raw materials to avoid shortages or rescheduling.

## Production:

BatchMaster ERP aggregates demand for finished goods, creates the optimal number of batch jobs across the production stages or process cells, allocates the best inventory and back schedules the batch jobs. Recipes can be dynamically adjusted to compensate for available inventory characteristics (e.g. pH, strengths, etc) in order to meet specified target characteristics. Batch job releases and completions can be managed on an individual basis, which initiates all the necessary inventory pulls, QC tests and manufacturing instructions. Certain batch jobs can be linked together and back scheduled or sequenced using the Super Batch feature. Manufacturers can manually capture inventory usage or automatically back flush inventory when closing batch jobs, as well as capture actual costs and other batch job data.

## QC, QA and CAPA:

System libraries and approval workflows for sample vendor inspections, equipment checklists, CAPA procedures, product QC tests and acceptance quality limits (AQL) can be established within BatchMaster ERP. Instructions and tests can be planned and executed against receipts, order shipments, stored inventory, and production line equipment. Sample vendor inspection results will validate vendor certifications. Instructions can be informative in nature, such as simply printing a relevant document. Some may simply require acknowledgement after presenting the information to a user. Product QC tests for potency, hardness, thickness, and disintegration require user data collection and system validation. When a nonconformance situation arises, QA performs a root cause analysis, revises procedures and dispositions the affected goods, based upon defined CAPA procedures. Customizable COAs are generated upon batch job completions. All sign offs by users and managers are captured and maintained in formula's MBR.

## Costing:

Raw materials costs based upon last purchase price, standard costs, or projected costs are rolled up along with fixed, tiered and scalable labor costs. Cost estimates can be managed during product development of product recipes, including intermediate bases, and packaging BOMs. Actual costs, yields and other KPI's are captured during production, and can be compared against projections in a variety of analytic reports.

## Dashboards and Reporting:

Customizable role-based screens provide visibility to critical manufacturing data, including inventory consumption and balances, actual versus expected yields and costs, and quality control results and trends.

## Compliance - Food Safety, Lot Traceability and Labeling:

Lot number information is captured or auto generated at the time of receiving, auto generated for intermediates and finished goods, and then validated during finished goods distribution. A bi-directional view of lot controlled inventory enables users to track the creation and movement of suspect products from delivery to shipping, shipping to delivery, and anywhere within production. BatchMaster ERP generates GFSI and GS1 related documents, customized recall reports and personalized customer letters. In terms of production labeling, nutritional fact panels that address non GMO, gluten-free and allergen-free claims can be generated on demand. From an IT perspective, all key transactions are maintained in history logs for auditing purposes, including recipe approvals, batch job changes and QA releases.

## Mobile:

Warehouse activities that support receiving through production to shipping tasks, including manufacturing related inquiries, QC related inspections and instructions, can be executed via mobile devices.



## Key Front Office Features

Available as a total financial and manufacturing ERP solution, BatchMaster ERP for Nutraceuticals adds a tailored front office suite, including CRM, to its modular manufacturing and mobile warehousing product suite. Front office modules include:

### Accounting and Financials:

Capture, measure, analyze and report the cost of doing business, specifically the cost of intermediates and finished goods from the lab through to customer shipment.

### Sales:

Efficiently and accurately capture customer demand from business partner EDI transactions, eCommerce websites and customer portals. Convert sales quotations into customer samples, then track and report on the status and profitability of every customer campaign, quote and order shipment, including their discounts and promotions.

## **Purchasing:**

Employ economies of scale to purchase raw materials from approved, certified vendors to feed planned batch production jobs created from demand planning.

## **Maintenance:**

Plan, schedule, and execute predictive and preventive maintenance activities against production line and warehouse equipment to optimize equipment availability and utilization.

## **Distribution:**

Effectively manage store replenishments, inbound and outbound activities across one or more facilities, as well as inter warehouse transfers.



## **Recognize These Benefits**

By gaining greater control over product development and production, improving planning and scheduling, balancing inventory, and reducing costs and variances, companies employing BatchMaster ERP for Nutraceuticals are increasing their profit margins, gaining market share and improving their bottom line.

## **Rapidly Develop New Products:**

To satisfy today's ever growing number of health conscious people looking for the next, best supplements, your team of product developers will have the tools to quickly introduce new products to the marketplace. Advanced programming reduces your time spent on tedious, error-prone manual calculations in designing, updating and approving products that meet your targeted physical, nutritional and financial characteristics.

## **Better Inventory Control:**

Accurate, granular demand planning and production scheduling optimizes your procurement and production of raw materials and finished goods, respectively, which will give you better control over inventory balances and space utilization within your plants.

## **Quickly Scale Up Production:**

Automation of your batch and continuous flow production processes reduces the need for manual intervention. Dynamic recipe adjustments, auto sizing and scheduling of batch job all work together to streamline production, while reducing the delays, risks and costs of operational downtimes. The establishment of a comprehensive, online quality program allows you to improve current processes, keep production line equipment settings at their optimal settings and ensure your manufacturing processes can meet the increased in demand.

## **Ensure Product Quality:**

Ensure your corporate standards are being met in terms of your finished good sizes, shapes, colors, and thicknesses, as well as container rows, cavities and other packaging properties. Continuously monitor your operations so that any out of tolerance and nonconformance situations can be quickly resolved and actions taken to prevent future occurrences.

## **Avoid Customer and Industry Fines and Penalties:**

BatchMaster ERP supports the guidelines, restrictions and compliance issues typically associated with pharmaceutical companies. Keep compliant with FDA, FTC and NIH regulations, in terms of supplemental fact labeling, allergen declarations, lot traceability and recall requirements. Bi-directional lot tracing enables you to report on suspect products in minutes, not days - minimizing the scope of the recall. You can now establish effective mock recall programs with your suppliers and customers. By establishing a comprehensive quality program, you can avoid customer chargebacks and returns due to order shortages and shelf life issues. And with a thorough and easily accessible audit trail of key business transactions, you will be in compliance with your auditors' record-keeping requirements.

## **Improve Management Reporting:**

Customizable role-based screens provide you with accurate, real-time visibility to those key metrics that will help you to make better informed decisions, faster, and maintain your competitive edge.



### **Reduce Costs:**

You have the means to manage costs upfront during product development. Demand planning and production scheduling reduces the costs of excessive labor and inventory, as well as the costs associated to equipment clean-downs and changeovers. With a quality program enacted at the time of receiving thru customer shipments, you will reduce the cost of chargebacks and returns. And by employing an Electronic Master Batch Record, you can significantly reduce the large costs associated with paper document printing, reviewing, storing and retrieving.

### **Increase Sales:**

Leverage BatchMaster ERP's quality, traceability and compliance capabilities not only to retain your valuable customers, but to gain new ones.

## **Take The Next Step**

BatchMaster ERP for Nutraceuticals gives you greater control over your business, from sales, procurement, and manufacturing to accounting and customer service. This end to end financial and manufacturing solution gives you system adaptability, accountability, reliability, scalability and traceability - all the system abilities you need to profitably grow your business.

As an industry focused solution provider, BatchMaster Software is ready to help you meet your business objectives, so please contact us today to discuss your business requirements:

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