



THE GLOBAL LANGUAGE
OF BUSINESS



CASE STUDY



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—MEGHAN KLOTZBACH,
*Regulatory Manager,
Mother Earth Organic Mushrooms*

MOTHER EARTH ORGANIC MUSHROOMS

Mushroom grower uses GS1 Standards for produce traceability and real-time inventory management

CHALLENGE

A grower/packer with a conscience, Mother Earth Organic Mushrooms (Mother Earth, LLC) was eager to meet the demands of its customers for produce traceability while remaining committed to delivering a safe and tasty product.

SOLUTION

Mother Earth, LLC, partnering with SG Systems, LLC, implemented case-level traceability using GS1 Standards for end-to-end visibility from the mushroom house to the customer (Distributor, Grocer or Restaurant). Implementation of the traceability solution required prerequisite data cleansing, which put the company's mushrooming business in order by consistently identifying each product regardless of destination.

BENEFITS

- Real-time inventory management enables sales to fulfill orders quickly and accurately.
- Improved recall process now takes minutes with automated traceability compared to hours with paper-based process.
- Enhanced operation reduces labor-intensive tasks for greater productivity.



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—TIM HIHN, Owner, Mother Earth Organic Mushrooms

GROWER WITH A CONSCIENCE

Mother Earth Organic Mushrooms was founded on a dairy farm in West Grove, Pennsylvania, nearly a century ago with only two mushroom houses. Currently C.P. Yeatman & Sons, Inc., the owner of Mother Earth, LLC, employs 200 people and operates a total of 61 houses. Annually they grow, pack, ship and transport over 20 million pounds of fresh, quick-frozen and dried mushroom varieties to distributors, retailers and the foodservice industry.

Continuity of operations at Mother Earth, LLC owes everything to the original founder, Arthur Yeatman, whose descendants now extend to the fifth generation acting as stewards of the compost-rich soil that produces these delicacies.

Keeping current with industry trends, the family regularly attends food safety conferences and works closely with Penn State University for direction and insight. Until recently, Mother Earth, LLC’s food safety program was entirely paper-based.

“We knew we wanted to move forward with something that was more reliable,” reports Meghan Klotzbach, regulatory manager and a fifth generation member of the family. “We looked at it from two perspectives: most of our customers require audits and mock recalls, to make sure we can trace back and track forward. On the other side is a personal feeling: its about having a conscience and making sure that everybody is getting a safe product.”

The company learned about the Produce Traceability Initiative (PTI), a voluntary, industry-wide effort designed to help packers like Mother Earth, LLC achieve electronic traceability for every case of produce.

“We decided to make the investment in automating our processes,” says Tim Hihn, owner of Mother Earth, LLC and Meghan’s father. “We realized it had to be a company-wide commitment to be successful. That meant taking the time to explain the importance of the change to everyone.”

Klotzbach continues, “A few people in our industry were starting to implement GS1 Standards and automated systems for traceability. We decided to consider four different systems and chose the one that was most user-friendly with touch screens.”

The chosen system was the one offered by SG Systems, LLC [www.sgsystemsusa.com] to increase yields, reduce paperwork, and help companies meet PTI requirements. The solution boasts rapid adoption by utilizing step-by-step touch screens available in five languages, a plus for Mother Earth, LLC whose 40 packing floor employees speak Spanish as their primary language.



“It was a priority for us to have orderly data before starting the traceability implementation.”

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Regulatory Manager, Mother Earth Organic Mushrooms

“Mother Earth Organic used PTI as an opportunity to become much more accountable in their operations,” says Stuart Hunt, president of SG Systems, LLC. “They were eager for a rapid implementation: while we were programming the solution, they were doing their due diligence in terms of rationalizing catalog items.”

CLEAN DATA DIVIDENDS

Before implementing GS1 Standards and its new processes, Mother Earth, LLC chose to launch an aggressive 90-day project to cleanse its product data.

In keeping with marketing trends and consumer demands, Mother Earth, LLC had over the years assigned differing product names to the same product. For instance, crimini mushrooms would be marketed as “Baby Bellas” or large white mushrooms were marketed as “Silver Dollar” mushrooms.

“To create an automated system, I strongly believed our products needed to be identified in a standard way,” Klotzbach says. “It was a priority for us to have orderly data before starting the traceability implementation.”

The company adopted a protocol that listed weight first, followed by the type of mushroom, size of mushroom and any production alterations – such as pre-cleaned or sliced, for example.

“It was kind of a big eye-opener for everyone: for production, for people on the floor and for people in the office. Everyone began to understand their roles in this and appreciate how much consistency can help in streamlining operations,” Klotzbach says of the data cleansing.

FROM TRUCK TO COOLER

Once the products were properly cataloged, the company was able to more easily create GS1 Global Trade Item Numbers® (GTINs®), which uniquely identify each product.

After three months of planning, SG Systems, LLC installed the new system and processes for case-level traceability. When a farm truck pulls up to the receiving dock, the mushrooms are logged into the new system by weight, item number, and item type, which can all be easily traced back to the grower.

A typical 1,000-pound lot of bulk mushrooms arriving in the production facility is scanned into production using the pallet tag. If the lot is to be divided into 10-pound cases, the system keeps track of the production while packers simultaneously inspect for and remove “stumps” as well as pass each completed box through a metal detector. Boxes are re-palletized and put into a cooler, all labeled with PTI-compliant labels containing the product name, and encoding the product GTIN and specific lot number into a GS1-128 barcode.

“Everyone realizes how much easier it is to use this system compared to the paper-based system,” Klotzbach recalls.

“Improvements in our inventory management from implementing GS1 Standards for traceability have been huge. We used to go out and count everything on the floor every single night. Before we filled orders, we had to look in our cooler. It was exceedingly labor intensive and potentially inaccurate.”

MUSHROOMING BENEFITS

Mother Earth, LLC now has a real-time inventory of raw product received, which farm it originated from and a final count of inventory. Also because the company sells not just to distributors, but also directly to restaurants and grocery chains like Whole Foods, its across-the-board system is easy to manage.

Although Mother Earth, LLC has not yet taken a sharp pencil to the ROI achieved, it is expected to be significant. “Based on our experience with another mushroom operation, we’re confident Mother Earth will experience significant savings by adopting a fully accountable, automated system for traceability,” Hunt says.

Mother Earth, LLC plans to implement the PTI hybrid pallet label later this year. When the company mixes cases of different types of mushrooms from different lots on one pallet, it can link the mix and lot numbers to a GS1 Serial Shipping Container Code (SSCC). On the hybrid pallet label, the SSCC is encoded in the GS1-128 barcode along with each different case configuration containing GTINs, lot numbers and the quantity of each case GTIN/lot number on the pallet. Mother Earth, LLC expects this will further streamline operations – requiring fewer scans of product – as it transfers data directly into the system.

In the front office, sales orders are coming in throughout the day. These orders are input into the system, which are transmitted to handhelds on the production floor. Clicking on a specific order, cases are pulled from the cooler, and the barcode on the case is scanned into the system.



A packer prepares flats of mushrooms and applies PTI-compliant case labels.

If a particular lot is depleted before the order is filled, another lot is used to complete the order, keeping an accurate inventory. A delivery ticket is printed listing the specific products and lots shipped based on the case barcodes scanned. End-to-end traceability is assured, both backwards to the growing house and forward to the exact customers who received mushrooms from a given lot.

The inventory tracking afforded by the system is useful to an unpredictable marketplace, with customers often changing orders throughout the day. If a more exotic mushroom is ordered, the system can quickly verify availability and save time and trouble of searching the cooler.

Because mushrooms are less susceptible to the pathogens that affect other produce, recalls in the industry are rare. Although Mother Earth, LLC has never had a recall, the company regularly conducts mock recalls. What once took hours sifting through paper and deciphering handwriting, now takes just a few minutes with the new product traceability system reports available with a few clicks.

LOOKING FORWARD

For other growers considering implementing PTI recommendations for traceability, Klotzbach has some advice.

GET ORGANIZED AND BE COMMITTED. “Take the necessary steps to get organized and do it right. In the end, it’s worth it.”

WORK WITH A RESPONSIVE PARTNER. “It’s important to have a solution provider that’s available to walk through not just the major issues, but the trivial ones that may occur day-to-day.”

EMPHASIZE THE IMPORTANCE TO THE ENTIRE TEAM. “It’s important to get buy-in from employees, but especially important to have the owner and managers’ support.”



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Regulatory Manager,
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CONTACT US

To learn more about traceability and how GS1 US® can support your company, visit www.gs1us.org/fresh_foods and/or contact the GS1 US Customer Service Team at +1 937.435.3870.

ABOUT THE PRODUCE TRACEABILITY INITIATIVE

Sponsored by Canadian Produce Marketing Association, GS1 US, Produce Marketing Association and United Fresh Produce Association, the Produce Traceability Initiative (PTI) is designed to help the industry maximize the effectiveness of current trace-back procedures, while developing a standardized industry approach to enhance the speed and efficiency of traceability systems for the future. The PTI has a bold vision, which outlines a course of action to achieve supply chain-wide adoption of electronic traceability of every case of produce. The PTI website serves as a central resource to provide industry members with extensive education and guidance on implementing these recommendations. www.producetraceability.org

ABOUT MOTHER EARTH ORGANIC MUSHROOMS

The Mother Earth Organic Mushrooms brand was born on a dairy farm in West Grove, Pennsylvania in 1919, purchased by Arthur P. Yeatman. By 1923, the first two mushroom houses were followed by three more and, in 1930, the dairy operation was discontinued and four more mushroom houses were built. Today, C.P Yeatman & Sons, Inc., the owner of the Mother Earth Organic Mushrooms brand, employs 200 people and operates a total of 61 houses annually growing, packing, shipping and transporting over 20 million pounds of mushrooms to distributors, retailers and the food service industry. www.organicmushrooms.com

ABOUT GS1 US

GS1 US, a member of GS1, is an information standards organization that brings industry communities together to solve supply-chain problems through the adoption and implementation of GS1 Standards. More than 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration and for maximizing the cost effectiveness, speed, visibility, security and sustainability of their business processes. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). www.GS1US.org



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