

# QA

Quality Assurance & Food Safety

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## SOME LIKE IT HOT!

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By Lisa Lupo

The little red bottle has been featured in the movies of Charlie Chaplin, *The Little Rascals* and James Bond; it appeared as the question to an answer on “Jeopardy!”; it has ridden on the space shuttle, been packed in Gulf War rations and sat on the table of U.S. presidents; and, if that weren’t enough notoriety, it’s been endorsed by celebrities as diverse as Van Cliburn and Ted Nugent to Dan Aykroyd and Anne Rice.

So how did this little bottle of pepper sauce attain so much exposure and become a household name, requested on tables around the world?

If you ask those at McIlhenny Company, makers of TABASCO® Brand Pepper Sauce, you will often receive, first, a look implying its obviousness, then the simple answer: “Quality.” As described by Quality Assurance Manager Shawn Theriot, “We’ve had whole generations of customers, of users, who identify quality with the brand.”

**INNATE QUALITY.** With literal, hands-on control of its product from farm to table, quality does seem to be a simple concept at McIlhenny Company — as innate as piquancy is to a pepper, with much of the process of creating its renowned TABASCO® pepper sauce unchanged since the company was founded 137 years ago. Probably the best example of this is the company’s unique three-year aging of its pepper mash in oak barrels — a process established by the founder and unchanged since then. No other pepper sauce company does this, Theriot said, making the aging a key point of TABASCO®’s differentiation and quality.

“Quality isn’t something we had to learn to do; it’s something that was started when the company was founded,” Theriot said. And except for allowances for technology and regulations, the process and product remain unchanged. “It’s the same basic process, with some automation, but the basic steps are still there,” Theriot said. Theriot does not feel that such unchanging consistency is the norm in the industry, explaining, “Most food companies are under pressure to change to make their processes cheaper and faster. We really don’t feel that pressure.”

One thing that *has* changed is the availability of tools by which McIlhenny Company can verify that every batch of TABASCO® is consistent, he explained. “We are able to fine-tune it, to document,



Each pepper used in TABASCO® red pepper sauce is grown from seeds harvested on Avery Island and hand-picked at the peak of ripeness.

to prove to our customers that we’re not just telling you we have a quality product.” Rather, he said, “we have a whole battery of tools on our hands, a whole series of tests that we do on a real-time basis, that weren’t done back in 1868.”

In addition, Theriot said, “the things that have changed, that continue to change, are food security.” Documentation has become more important; the plant has implemented a HACCP plan; safety and security measures are continually upgraded; filters, magnets and screens have been integrated throughout the lines; and GMPs are standard practice to more closely protect food and employees — measures unavailable or nonexistent when the company was created.

While there is indeed additional and increased scrutiny today because of concerns about the food supply, Theriot said, the changes affect the procedures, not the product. “The sauce hasn’t changed; the rules under which we operate have changed.”

But even with today’s mechanization and technology, McIlhenny Company has a heavy reliance on its people, even backing up mechanized sensors with the human eye. Along the processing line, McIlhenny Company has a number of automated sensors to detect and reject non-complying bottles, such as those that are not correctly filled, have no lid, are unlabeled, etc. In addition to six photo-

eye sensors, though, the company posts workers at various stations to augment and double check the machines, such as removing a bottle which had a label, but an improperly placed label. “Even with automation, you have to have people,” said Vice President of Operations Troy Romero. “We have machines checking the human and humans checking the machine.”

The process also includes the automatic pulling of a sample bottle every 30 minutes. The bottle is checked — by a human — for such things as packaging material, shipper marks and proper coding. Because production lines are constantly changing, this check ensures that the bottles are being correctly packaged for the intended destination.

In addition to these, the company has set its now-standard processes based on its own lessons learned and years of experience. For example, Romero said, the effects of natural disasters taught McIlhenny Company that it needed to spread out its agriculture, so that a hurricane on Avery Island would not destroy the entire crop. The company’s unique process of aging the mash is another area, which though now a time-tested practice creating the pungency notes in the finished sauce, took some trial and error in the 1800s to get just right. “We have a lot of years, a lot of knowledge,” Romero said. “We know what works.”

And it is this experience and the family’s



No part goes to waste: Seeds and skin extracted from the process can be used in other McIlhenny products.

ongoing focus on getting — and keeping — it just right that has prompted users to identify quality with the brand. “Quality is not something that we had to learn to do. It’s something that was started back when the company was founded. It’s something that has been transferred,” Theriot said. “We don’t have to convince [employees] that quality’s a good idea. They know it. There are quite a few employees on the line whose grandfathers and whole families have worked here,” he explained. “Everyone knows we don’t take shortcuts, and everything has to be absolutely perfect before it leaves the facility.”

**QMS.** To attain this perfection, the senior management of McIlhenny Company developed a Quality Management System (QMS) plan, the purpose of which was to maintain and improve the quality of the products and succeed in international and domestic markets. “The cornerstone for the success of the TABASCO® brand products has been the consistent quality of these products,” the document states. “Each of these quality activities is important to the entire process, but it is the combined effect of all of the activities that assures the highest quality products are produced.”

The policy is communicated to all employees by banners and postings placed in

various areas of the facility, and its contents are required knowledge for employees, as it pertains to applicable procedures for each. In summary, the QMS plan includes four key steps:

#### 1 RAW MATERIAL INSPECTION

- 🌶️ No incoming product is used or processed until it has been inspected or otherwise verified as conforming to specified requirements.

- 🌶️ No incoming materials are released for manufacturing needs without prior inspection and documentation for food safety and quality purposes.

- 🌶️ All suppliers are sourced from the best possible partners in the industry, and critical ingredient suppliers are audited annually for food safety and quality.

- 🌶️ All pepper seeds are certified before planting and pepper mash is tested for pungency before being aged for compliance with McIlhenny Company specifications.

#### 2 FINISHED PRODUCT ANALYSIS

- 🌶️ All finished products are tested for key attributes such as pH, percent salt, moisture, percent acidity and viscosity prior to filling on the bottle line.

- 🌶️ No products are released to the production department until they are approved by the quality assurance

department.

- 🌶️ Samples of finished products are retained for further testing over the shelf life of the sauce.

#### 3 FOOD SAFETY

- 🌶️ All McIlhenny Company products are produced under its HACCP Plan. The company also has a complete set of prerequisite programs that address proper sanitation.

- 🌶️ SSOPs address everything from cleaning and sanitizing pepper barrels to cleaning the light covers in the warehouse.

#### 4 PRODUCT RECALL

- 🌶️ Product recalls can be executed from several angles.

- 🌶️ Routine mock recalls are run in which finished product is traced back to the original ingredients used in the batch.

- 🌶️ Mock recalls are conducted on ingredients to assure full traceability from the pepper field to the bottle on the customer’s table.

It is just such management commitment to quality that makes Theriot’s job easier and more effective. “I don’t have to convince Paul McIlhenny that I’m a QA manager and that we need to focus on quality and making sure that we’re consistent,” Theriot said. “For me this has been a great place to come and be a part of because of the underlying commitment to quality. To a QA manager, that is a big deal. They’re not sitting there spinning their wheels just because it looks good in a brochure or pamphlet for a product that the company is trying to sell. It’s the actual language that we speak here.”

The CEO’s words themselves back up Theriot’s statement in discussing the responsibility of the quality assurance manager to the company’s final product. “Stick to your guns as a QA manager and make sure that you keep high quality at the forefront,” said President and CEO Paul C.P. McIlhenny. “It’s imperative that QA managers keep meticulous records, using computers to do so when and if possible. And it’s important for corporations and QA departments to tell it like it is if you have problems. If you don’t want to hurt your brand name and hurt your business, then make sure that the quality of your product is paramount.”

**QUALITY SELLS.** “TABASCO® is much more expensive than other hot sauces,” McIlhenny said, explaining that this is because of the quality of the product, the time it takes to make it, the variety



of peppers used, the care it is given and the fact that the peppers are hand picked at the peak of ripeness. “By maintaining a superior quality and not tampering with the famous brand name and/or the famous trade dress, we’re able to perpetuate and continue the high quality story which demands a premium status in the economy category.”

McIlhenny also believes that a prime reason the company has been so successful and become a household name around the world is because it was the first to go national and international in its distribution. “We’ve been around a long time. We’re the Coca Cola® of condiments because of our age and our tremendous distribution, both domestically and internationally, and because of the quality.”

**A UNIQUE PRODUCT.** TABASCO® is a totally different product, McIlhenny said. It’s much stronger in heat, enabling consumers and chefs to use it more sparingly, but also more extensively. “Even though we’re more expensive, because we’re a concentrated pepper sauce, people do envision it as worth the price.” The uniqueness and quality of TABASCO® are based in “the ratio of salt and pepper, the ratio of vinegar and aged mash, the fact that the seeds and most of the skin are taken out,” he said. “It’s the quality of the pepper, the aging of the mash, the quality and strength of the vinegar, the low sodium.”

In addition TABASCO® is unique because:

🌶️ The hot sauce begins and ends at the island. Although the peppers are grown in three areas — Avery Island, Central America and South America — all originate from Avery Island seed; once picked, the peppers are immediately made into mash then shipped back to Avery Island for processing, with every bottle of TABASCO® bottled in the island’s processing plant.

🌶️ The peppers used in TABASCO® sauces are also unique because, Romero said, “We have a unique variety of tabasco peppers — I’m not going to say *the* variety, but we have some unique varieties that no one else has access to.”

🌶️ The mash is aged in white oak barrels for up to three years. “It’s something that absolutely no one else does, so that makes us unique,” Romero said.

🌶️ Unlike many hot sauce manufacturers that use the whole pepper, McIlhenny Company goes through a refining process, separating the seed and skin from the final sauce.

🌶️ TABASCO® uses beechwood-generated vinegar, a type that few manufacturers still use. “As far as I know,” Theriot



Bottled TABASCO® sauces have appeared everywhere, from GI meals to movie sets and even space shuttles.

said, “we’re the only customer that [our supplier] sells that vinegar to.”

🌶️ Concentrated through the aging process, the hot sauces don’t need to add salt for flavoring, and thus have very low sodium content as compared to most other pepper sauces.

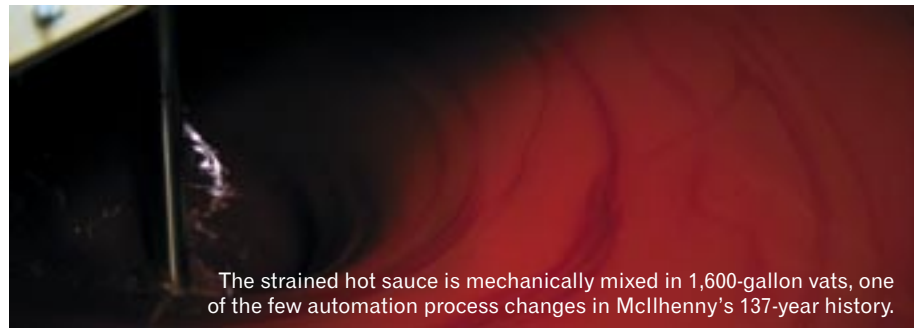
**THE PROCESS.** Most food processors can trace their product from farm to table, but with McIlhenny Company, the phrase is a literal description of its process:

1. *The pepper plant.* The seed of all peppers used in TABASCO® pepper sauces originate from peppers grown on Avery Island. “We select only the ripest, reddest fruit for seed production,” Theriot said. And whether intended for seed or sauce, all peppers are picked by hand. Because a single pepper plant will have fruit at various levels of ripeness at any point in time, a machine cannot be used. Instead the peppers are hand-picked using *le petit bâton rouge*, or “the little red stick.” Painted the color of a ripe tabasco pepper, the stick, he said, ensures that only the ripest red peppers are picked. Whether a pepper is grown

on an Avery Island field or the Central or South American field of a contract grower, it is “our variety, our seed,” Romero said. “We’re in on the seedling, the planting of the seed, the harvest, the picking — we’re involved.”

2. *Pepper mashing.* “They’re mashed with salt the same day they’re picked, and that’s an absolute necessity,” Theriot explained. The mash is then placed in white oak barrels where it’s allowed to age for three years. The barrels are closed and a thick layer of flowing, loose coarse salt (much of which is from Avery Island salt mines) is packed atop the barrel. The salt re-hardens, creating an impermeable seal and is reapplied until the fermentation ceases, at which time the barrels are stacked and stored for the remainder of the three-year period.

3. *Mash blending.* After the mash is aged, barrels from various regions are blended to ensure consistency of pungency, quality, flavor and color. Natural variations occur to any type of produce depending on the amount of sun, water and stress each plant receives, and each of these variations can affect heat level and flavor of the individual



The strained hot sauce is mechanically mixed in 1,600-gallon vats, one of the few automation process changes in McIlhenny’s 137-year history.

pepper, Theriot said. Thus, the mashes are blended “to minimize the natural variations that peppers experience while they’re growing,” he said. “You will never have a bottle of TABASCO® made solely from one field in one area.” “We don’t want someone in California who just flew in from New York to have a different TABASCO®,” Romero added. “We want them to have the exact product they expect with the exact flavor profile that they just had in New York.”

**4. Salt draining.** Once blended, the mash is drained to reduce the amount of salt. The free salt that has been sitting in the liquid is drained off. At the same time, some of the oils that have been sitting in the mash and can oxidize over time are allowed to flow out as well.

**5. Vat mixing.** Once drained to the appropriate percentages, the mash is mixed with vinegar. The mixing is done in a 1,600-gallon vat and continues for up to 28 days.

**6. Refining.** “We very easily could take all the seeds and pulp that are in that mixture and just pulverize it and bottle it. But we don’t,” Theriot said. Instead, the solids and seeds — which are no longer of benefit to the sauce — are removed through milling, creating the trademark red, refined-liquid sauce. Originally stirred and strained by hand, with workers pounding and pushing the pulp through a screen, this step is now mechanized with equipment which pushes the strained sauce upward through tubes to the mixing tubs, while the seeds and skin are separated to be sold for use in other products.

**7. Testing.** “We test it at that point to make sure that it’s TABASCO® sauce, and after that point it gets bottled,” Theriot said. Adjustments can sometimes still be made at this point if lab tests deem a batch sample to be slightly out of specification, said Quality Assurance Product Specialist Linda “Sweetie” Bonnett, herself a third generation McIlhenny employee who has been with the company for 20 years and in the QA department for 16. For example, the sauce’s viscosity can be adjusted with some knowledgeable blending. “That’s where the art comes in,” she said.

The lab tests are generally analytical — testing attributes such as viscosity, heat, pH and percentage of salt, acid, moisture and solids. In addition, product samples are taken from every production run and retained through the life of the product. Each includes complete information: from the line on which the sample ran all the way back to the country in which the peppers grew. “We have full traceability from field to user,” Romero said.

There is no single most important step in the quality process, Theriot said, although



McIlhenny’s Quality Assurance Manager Shawn Theriot (left) and Vice President of Operations Troy Romero examine the white oak barrels in which the mash ages for three years.

the start of the process — the seed selection and pepper growing — does set the foundation for the quality of the final product. “If you have bad quality in the beginning there’s no way you’re going to make something of high quality in the end,” he said, adding, “But each step builds upon itself. I wouldn’t isolate any one and say that if this step is completely off, you could still salvage it. No, this is all or none.”

**PRODUCT DEVELOPMENT.** The R&D department is continually working on new ideas, analyzing the taste and appearance of a potential product, and determining if it would be a good addition to the current line, whether it is something the company

could successfully produce and if it would have a market. Before launching any new product, Theriot said, “We want to make sure it fits in our portfolio of products.”

Because of the nature of TABASCO® products, most taste testing is done through lab tests. However, new products are tested by “real” people. “We’ve got some pretty refined palettes that taste the new products,” Romero said. It is first tasted by a small group of McIlhenny Company people, which is asked, “How does that taste? What would it be used on?” If a product passes this first test, it moves on to a marketing group, food panels and focus groups — including “Pepperfest users,” which Romero explained are “people who come to our Web

site and are big TABASCO® fans.”

“We’re years in development in a new product,” Theriot said. “Mr. Paul [McIlhenny] is very involved in that. He’s one of the few that really can taste and compare.”

“There are hundreds of items out there kind of in the flanks,” McIlhenny said, “but the ones we heavily promote and market and merchandise are the five flavors, and we may introduce a sixth flavor in the near future,” he said. But even with hundreds out there, they all have a single commonality, “They’re all flavored or spiced with TABASCO® sauce or product, meaning the pulp or the seed or the sauce.”

**PRODUCT DISTRIBUTION.** TABASCO® is distributed to 160 countries and territories around the world. “Pretty much anywhere from the biggest box store in America to the smallest fishing village in Taiwan, you can find TABASCO® brand pepper sauce,” Romero said. In the U.S., product is shipped to public warehouses and sold through a group of food brokers to customers and consumers, but internationally, the company uses distributors to distribute, market and sell the product.

Although the company has distributed its product internationally almost since its inception, there are certain challenges involved, including vast knowledge of the

specific regulations and requirements of each country. Each has its own food laws, product registration and labeling requirements, Romero explained, causing various challenges depending on the market being served. Saudi Arabia, for example, doesn’t accept any product with a greater-than-two-year shelf life. So, although McIlhenny Company labels TABASCO® with a five-year shelf life elsewhere, this is changed for the Saudi distribution.

**THE FAMILY BUSINESS.** Family-owned and operated since its inception, McIlhenny Company’s uniqueness extends from that of its product to that of its employees — a number of whom live in cottages on the island. Yet succession, even for that of the company president, is not an automatic thing but one which must be worked for. “We’ve had family members working here and running the company since day one,” McIlhenny said. “So you don’t just step into the position, you usually work your way up to becoming chief executive officer, as I’ve done, and I’ve been here almost 38 years.”

The company has more than 100 family shareholders, but only three in current day-to-day operations and eight on the board of directors. With the company’s intent to remain family owned and operated, he expects he will be succeeded as president

and CEO by a family member.

**FAMILY FUN, FUN, FUN.** Tell anyone that you work with or for TABASCO®, Romero said, “they want to tell you their story.” They have a friend who used it in Vietnam or a son in Iraq who loves it; they saw a crazy human trick on TV featuring the product or used it in an oyster eating contest. “It’s a fun brand to work for. It’s a fun brand to work with,” Romero said. And its brand identity, with its interactive Pepperfest Web site, chef contests and recipes for TABASCO®-ingredient desserts, all focus on this fun. “It’s an exciting, fun thing to do — to enhance the flavor of your food with this product and make life better,” Romero said. “What’s not fun about that?”

Quality, fun, tradition, profitability; quality. All are key focal points of the McIlhenny Company, and with the tiny red bottle appearing everywhere from small fishing villages to outer space, the company is obviously doing something right. Perhaps its CEO says it best. “Quality is a noun, it’s not an adjective. You can have poor quality and you can have good quality,” McIlhenny said. “We say uncompromising quality. I think that kind of sums it up.” **QA**

The author is a contributing writer to Quality Assurance & Food Safety magazine.