

QUALITY CONTROL OUR NUMBER ONE COMMITMENT By William Cabot, M.D., FAAOS

I have an old boat and when it needs work done on it I always bring it to the same place. I do this because I know the quality of their work is consistently good, the service is excellent, and the staff is always pleasant and anxious to help me solve a problem. My good experience is the direct result of the boat yard management putting in quality control systems implemented by a team of professionals with the goal of customer satisfaction. The same principles are applicable in almost any business.

Consumers are taking unprecedented interest in the way food and other products are produced, processed and marketed. They are increasingly calling for their Governments to accept greater responsibility for food safety and consumer protection. Companies should be held responsible because adverse events caused by not adhering to a quality and safety protocol can be serious or deadly.

Quality and integrity are the driving force behind everything we do at AMCO and ACD. Some companies feel that they must have the most cosmetically appealing product and others feel that price is the most significant issue. Those attributes certainly have merit but they pale in comparison to quality standards that must be achieved in production.

Quality control (QC) is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer. QC is similar to, but not identical with, quality assurance (QA). QA is defined as a procedure or set of procedures intended to ensure that a product under development (before work is complete, as opposed to afterwards) meets specified requirements (1). QA is sometimes expressed together with QC as a single expression, quality assurance and control (QA/QC) and we have an entire department dedicated to it.

This is one area where we believe that more is better. We are a belt and suspenders outfit and would rather err on the side of over doing our quality control rather than doing enough to just get by. We adhere to six different certifications and the standards they mandate. They are as follows:



ISO 9001

ISO stands for the International Organization for Standardization (2). This organization provides guidance and tools for companies or organizations that want to ensure that their products and services consistently meet their customer's requirements and needs.

ISO 9001 specifically deals with putting into place procedures that result in an outstanding management system. It is based on a set of principles involving appropriate management of a company. The goal of adhering to the principles that result in customer satisfaction is producing consistently good quality products (3).

Checking that the system works is a vital part of ISO 9001:2008. An organization must perform internal audits to evaluate if the processes in place are effective or need improvement. Although it is not required, one may utilize an independent certification body to verify that it is in conformity to the standards it has set for itself. At AMCO and ACD we utilize a highly respected company (DEKRA) to do their own independent analysis and confirm that we are adhering to a rigid set of principles and procedures. If there is a change that may improve our product or customer satisfaction we don't hesitate to implement it.

HACCP AND GMP'S

HACCP stands for *hazard analysis critical control points*. It is a systematic approach in preventing hazards that might deem the food unsafe to public health. The FDA regulates seafood and juice, while the USDA regulates meat and poultry (4, 5). There is a very organized way that a company goes about implementing a HACCP program.

First you must conduct a hazard analysis to determine if there are places in your production of a food product that have the ability to result in production of food that is unfit for human consumption by virtue of being contaminated. You then determine and

establish critical control points in your production and set appropriate limits for each point to avoid falling into a potentially dangerous area. A monitoring system of the critical control points is then established and limits are determined for each point that is to be closely watched. The points, their limits, and the time frequency that they are checked are then documented as a part of the HACCP plan. It is also necessary to list in writing what corrective actions are to be taken if there is a deviation from your acceptable standard. Record keeping procedures have to be in place that describes the plan itself as well as documentation of monitoring of the critical control points and the values obtained during the monitoring process.

We adhere to what is known as known as GMP's or Good Manufacturing Practices. They are spelled out in the Code of Federal Regulations (6). In addition to basic food hygiene requirements, the microbiological, physical and chemical hazards at each stage in the manufacturing process are identified and evaluated. These hazards can be minimized by identifying and checking critical control points (CCPs) in production. The company DEKRA is utilized by us to conduct audits to verify that we are satisfying the requirements of both HACCP and GMP'S.

SQF – Safe Quality Food

SQF Level 2 is a system with many components that have one goal. That goal is the production of safe food. It is a step beyond HACCP and requires that a HACCP program be in place as part of the SQF certification. SQF also requires food safety management system processes and procedures to manage all aspects of food safety throughout the individual business. There are additional requirements that include document and records control, specifications and product development processes, verification of the processes, traceability and recall processes, site security, and a host of additional practices with the goal of producing the safest food possible.

In response to a number of food safety scares, a group of international retailers created the Global Food Safety Initiative (GFSI) whose central vision is "Safe Food for Consumers Everywhere." GFSI is committed to benchmarking food safety management schemes in order to enhance food safety and maintain consumer confidence. GFSI is an integral part of SQF. Perry Johnson Registrars Food Safety, Inc. is dedicated to providing certification to GFSI approved standards and we utilize them to ensure and maintain our commitment to quality.

We have an SQF practitioner who is responsible for overseeing the development and integration of the many components of the system. That person is familiar with both HACCP and SQF. Audits are scheduled, completed, and documented.

Kosher Certification (OU)

America and many other countries seem to have developed almost an obsession with obtaining cleaner, purer, and better food (7). I am continually astounded at the large crowds I find at expensive food stores such as Whole Foods and Fresh Market. People are willing to sacrifice in other areas of their lives so that they obtain the freshest and purest food for themselves and their families.

The word Kosher implies strict rules and regulations (which it does) but the literal translation of the word is "fit". Many consider it to be synonymous with "pure" and thus more fit for consumption. According to Mintel, a research group that produced a report on the kosher food explosion, the primary reason for buying kosher food was quality, followed by healthfulness (8). That same article states that 40% of the foods sold at grocery stores have a kosher imprint on the label.

Kosher rules are a set of dietary rules that most food companies abide by because even though their origins are Jewish they are more frequently seen by the consumer as purer or cleaner. It is mandated that animals that are slaughtered for food must not suffer. All kosher milk products must come from kosher animals and milk of impure cattle is prohibited. Dairy products and meat are kept separate and shellfish is prohibited. Space does not permit a thorough listing of all the rules food manufacturers must adhere to in order to put that little kosher symbol on their packaging.

"I think Kosher is in some ways becoming a new organic certification for some consumers" according to David Rossi, vice president of marketing for the parent company of Manischewitz. The Kosher symbol on a food product in the grocery store has become synonymous with the product being cleaner, purer, and better (7). In the same way that the majority of patrons in an Asian restaurant are typically not Asian, the majority of people seeking kosher food are not Jewish. They are simply seeking quality and purity in the manufacturing of what they consume.

Halal Certification (IFANCA)

Halal is food certification for Muslims. It actually has many similarities to kosher certification. *Halal* is an Arabic word which translates to "lawful" or "permitted". *Haram* is the Arabic word for not permitted. "IFANCA" is The Islamic Food and Nutritional Council of America (9) and is an excellent resource for any questions you may have concerning Halal or Halal Certification.

All foods are considered either *Halal* (permitted), *Mashbooh* (questionable), or *Haram* (not permitted). The following is a list of the haram foods (9).

- Swine/pork
- Animals improperly slaughtered
- Alcoholic drinks

- Carnivorous animals and birds of prey
- Foods contaminated with any of the above

As you can see there is quite a bit of overlap between Kosher and Halal as far as what a food company has to do to be compliant. The IFANCA website (9) is a great resource for those wanting to educate themselves further.

Organic Certification (QAI)

When a food product is certified organic it has been subjected to a very thorough inspection. Inspectors from the government verify that there has been good soil management, accurate record keeping, review of the facilities pest control policies, and minimal processing to maintain the integrity of food without artificial ingredients or preservatives. Organic foods are minimally processed to maintain their integrity without artificial ingredients or preservatives. The United States Department of Agriculture maintains an excellent website which can most likely answer any question you might have about organic foods (10). Since 2002, organic certification in the United States is under the auspices of the USDA National Organic Program.

QAI (Quality Assurance International) is a USDA certifying agency. Certification is important to assure integrity of the product from the farm to the retail shelf.

Summary

At AMCO and ACD we take a proactive approach to prevent a problem before it becomes one. We check and double check ourselves and in many cases have outside companies check what we have done. We are continually searching for new or better ways to ensure the safety and integrity of our products.

BIBLIOGRAPHY

- 1. Manghani, K.; Quality assurance: Importance of systems and standard operating procedures; Perspect Clin Res. 2011 Jan-Mar; 2(1): 34–37.
- 2. http://www.iso.org/iso/home.html
- Santos, Leticia; Escanciano, Carmen (2002). "Benefits of the ISO 9000:1994 system: Some considerations to reinforce competitive advantage". International Journal of Quality & Reliability Management 19 (3): 321–44.
- 4. http://www.iso.org/iso/home/standards/management-standards/iso22000.htm
- 5. <u>http://www.gpo.gov/fdsys/pkg/CFR-2012-title9-vol2/pdf/CFR-2012-title9-vol2-part417.pdf</u>
- 6. <u>http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPar</u> <u>t=110</u>
- 7. Park, Michael ; Kosher food becoming the chosen food of the unchosen people; Fox News.com, 1-28-07.
- 8. Severson, K; New York Times, Jan 12, 2010.
- 9. http://www.ifanca.org/Pages/staticwebpages.aspx?page=whatisHalal
- 10. http://www.ams.usda.gov/AMSv1.0/nop