

Halal Food Production for the Cereal Industry and the Halal Certification Process



- Food consumed by Muslims that meets the Islamic dietary code is called halal food.
- The market for halal food is growing at a rapid pace in the U.S. and internationally.
- Halal certification can best be served by an independent organization acting as a third party endorser.
- The process for halal certification is not complicated.
- The halal logo is an authoritative, independent, and reliable testimony that supports halal food claims.

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Food consumed by Muslims that meets the Islamic dietary code is called halal food. Until recently, the word halal was confined to Muslim households and Muslim countries. The food was mainly prepared and consumed by Muslims in conventional ways, and the only food items that crossed international boundaries were raw materials like spices, grains, and cattle. There were no laws governing the production, distribution, or sale of halal food products until recently. Processed halal food entered world trade as multinational food corporations started setting up their shops in countries with Muslim majority populations or a strong Muslim influence. The food industry is now striving to produce halal products to meet the demands from the global supermarket.

What is Halal Food?

Muslims use two major terms to describe food: halal and haram. Halal means permitted or lawful and haram means forbidden or unlawful. Other terminolo-

gies used are *makrooh*, *mashbooh*, and *dhabiha*. *Makrooh* is an Arabic word meaning religiously discouraged or disliked. *Mashbooh* is also Arabic and means suspected. It covers the grey area between the halal and haram. *Dhabiha* means slaughtered and implies that the animal has been slaughtered by a Muslim according to the Islamic method of slaughter.

Why Halal? What Is in It for the Cereal Processor?

Several progressive food companies have realized the importance of this question, and these businesses have expanded as a result of catering to the large Muslim community and its requirement of consuming only halal products. Islam is the second largest (10) and fastest-growing religion in the world (7), accounting for 1.4 billion people (1). It is estimated that the international halal food trade exceeds \$150 billion per year, and it is growing, opening the doors of economic opportunity for the food industry. The world market potential for halal food is not limited to Muslims only; because of consumer awareness of quality and nutrition, many companies are looking at halal as a new concept in marketing.

Halal Food Markets

Halal foods are gaining popularity at grocery stores and restaurants. According to Fairclough (3), who reported in *The Wall Street Journal*, sales of halal products are climbing as the number of U.S. Muslims grows and demand spills over to other consumers. Halal awareness is increasing in other Western countries, too.

Satisfying the demand for halal food presents both a challenge and an opportunity for entrepreneurs in the countries with surplus food. In realization of the importance of halal food in international trade, the USDA Food Safety and Inspection Service has established guidelines with regard to the use of halal labels on meat and poultry products (4). Similarly, the Codex Alimentarius Commission has adopted guidelines for the use of the term "halal" to ensure fair practices in the trade of halal foods across country borders.

The North American Halal Food Market

In the United States, providers of halal products are active in a number of areas. Domestically, ethnic food marts, schools, prison systems, hospitals, airlines, etc., are the visible centers of halal activity. As Muslims become more aware of their rights as consumers and voice their opinions, their demands will be met by farsighted suppliers. The buying power of Muslims for food in North America is estimated at more than \$12 billion.

Halal food demand is not only confined to the free market; it is very visible in the U.S. military as well as in prison systems. Certified halal meals are now available to the Muslim soldiers in the U.S. military. Most federal correctional institutions and many state institutions provide halal food or meals to the inmates. The New York City Department of Correction, for example, provides halal-certified meals to its inmates on a regular basis.

Halal food is becoming very popular on campuses. Cornell and Texas A&M Universities have started offering halal food choices to students and faculties in their cafeterias.

The International Halal Food Market

Two strong markets for halal products are Southeast Asia and the Middle East (8). These areas represent more than 400 million Muslim consumers out of a total halal consumer base of 1.8 billion. All major meat and poultry processors (e.g., from Australia, New Zealand, Canada, the United States, Brazil, and Europe) export to these markets. Muslims across the globe are starting to blend the best of Western-style foods with their generally Eastern values and habits. Whereas in the past Muslims simply avoided foods that did not meet their dietary needs, today they are actively searching for processed halal foods.

In the late 1980s and early 1990s, the potential of the Southeast Asian and Middle Eastern markets for halal foods started to be realized. The market has since expanded into south Asia, the

Mediterranean region, Europe, and central Asia. The benefits of trade by the Western corporations with the Muslim-majority countries are evident from the amount of global trade. Even Muslim-minority countries like Singapore and South Africa have shown that the halal food business is good business. Although the Muslim community forms only 16% of the 3.8 million people in Singapore, the halal food industry is big business in this cosmopolitan city/state. McDonald's, A&W, Kentucky Fried Chicken, and Taco Bell are some of the international brands that have gone halal in Singapore (9). In 2006, McDonald's Corporation announced that its outlets in the United Kingdom would introduce halal meat on their menu (5).

More than 4.7 million tourists visited Dubai alone in 2002, a 30% increase over 2001. Moreover, Dubai's tourist industry hopes to increase its visitors by more than 15 million by 2010. New hotel facilities, which are prime buyers of high-quality U.S. beef, are springing up to accommodate the tourist demand. Although the lion's share of retail meat sales is conducted in small-scale shops; supermarkets are set to increase their current market share. Fifteen major retailers operate more than 50 supermarket outlets across Dubai. This trend is duplicated throughout the Middle East.

The Role of Cereal Companies in Halal Food Production

Cereal-based products include a large number of staple food products: bread, breakfast cereals, cakes, candy, doughnuts, cookies, pastries, chewing gum, and many others. In addition to the major ingredients used in this group of products (flour, sugar, and shortening), many other ingredients are used, and some of these may not be acceptable to Muslim consumers. For example, emulsifiers like mono- and diglycerides are manufactured from fats and oils that may come from vegetable oil, beef fat, or lard. The sources of enzymes may be animal, plant, and/or microbial. Enzymes of plant and microbial origin have wider acceptability than those of animal origin, but porcine enzymes are not acceptable at all.

Muslim scholars differ about the permissibility of certain products containing additives. Muslim consumers are similarly split over the acceptance of such food additives, mainly those derived from animal sources. For instance, gelatin is a protein product commercially made from pork skin, cattle bones, calf skin, or fish skin. The label usually makes no distinction about the source of gelatin present in the food. Therefore, any product that contains

gelatin is either haram or doubtful unless the label clearly indicates halal gelatin or fish gelatin. Typical cereal products and ingredients that may contain gelatin include frosted cereal, cereal bars, yogurt, certain dairy products, ice cream, chocolates, candies, and nutritional products.

Alcohol is prohibited as drinks but is usually accepted in small amounts for food production. Some flavors are extracted with alcohol, but the residual alcohol level is generally very low. Usually this comes under the category of incidental additives and is ignored because the alcohol is at insignificant levels and may have technical or functional effects in that food.

Key Points in Halal Cereal Production

Animal products must be from halal animals (cattle, goats, sheep, etc.) and slaughtered according to Islamic rites. Halal cereals should be made, processed, produced, manufactured, and/or stored in dedicated lines, or the utensils, equipment, pumps, and pipes used in the process must be cleansed according to Islamic law.

Halal additives should be free of contamination and must not come into contact with haram substances during preparation, production, and/or storage of cereals.

The Halal Certification Process

Southeast Asian countries, particularly Singapore and Malaysia, are multireligious and multicultural societies, and the eating habits and preferences of each religious, cultural, or ethnic group are quite different from one another. It is important for the food industry to know the dietary requirements of each group in order to service that segment of the consumers. Indonesia, Malaysia, Singapore, and Brunei have government mandates to import halal-certified products. Recently, other countries in the region, such as Thailand and the Philippines, have initiated regulations to encourage both the export and import of halal products. In this region, halal is considered a symbol of quality and wholesomeness, not only by Muslims but also by non-Muslims.

The Halal Certification Program

Halal certification programs started in Singapore around 1980, in Malaysia in 1982, and in Indonesia around 1992. The program in Indonesia has developed into one of the strictest in the world. It is executed by an organization known as LP-POM, or the Assessment Institute for Food, Drugs and Cosmetics. It operates under the authority of the Indonesian Council of Ulema (ICU), generally known

as Majelis Ulama Indonesia (MUI). The Institute enjoys the full backing of the various government department and agencies concerned with food. Similarly, the halal programs in Malaysia and Singapore are quite structured and transparent. Two government agencies in Malaysia, Institut Kefahaman Islam Malaysia (IKIM) and Jabatan Kemajuan Islam Malaysia (JAKIM), run certification programs. Malaysia, Indonesia, Singapore, and Thailand have designed halal logos for products offered for retail or food service. A company wishing to apply a country's logo must make an application to that country's respective halal authority. However, certificates and logos of other recognized agencies are acceptable as well in those countries.

In South Asia (India, Pakistan, Bangladesh, and Sri Lanka), there are approximately 400 million Muslims. South Asian countries are reasonably self sufficient in food, but they import halal products for consumption, especially for food service. Halal programs in these countries are in the initial stages of development.



Some of the food service establishments in Pakistan operate under guidelines similar to those of Malaysia and require halal certificates from their vendors. The Gulf Coast countries of Saudi Arabia and others require certificates covering halal slaughter for meat and poultry, and they may at times require halal certificates and/or product information sheets for other food products. Similarly, halal certificates are also required for various food products imported by Egypt, Iran, and Turkey, as well as South Africa, Australia, and several other countries.

What is a Halal Certificate?

A halal certificate is a document issued by an Islamic organization certifying that the products it covers meet the Islamic dietary guidelines, including but not limited to the following: 1) The product does not contain pork or its by-products; 2) The product does not contain alcohol/alcoholic drink; 3) The product does not contain prohibited food ingredients of animal origin; 4) The product has been prepared and manufactured on clean

equipment; and 5) Meat and poultry components are from animals slaughtered according to the Islamic law.

Types of Halal Certificates

Site registration certificate. This type of certificate signifies that a plant, production facility, slaughterhouse, abattoir, or any other establishment handling food has been inspected and approved to produce or serve halal food. It does not mean that all food products made or handled at such a facility are halal certified. A site certificate must not be accepted as a substitute for a halal product certificate.

Certificate for a specific quantity of a specific product. Such a certificate signifies that the listed product or products meet the halal guidelines formulated by the certifying organization and/or the importing country. Such a certificate may be issued for a specified quantity of the product destined for a particular distributor/importer. If the certificate is for a specific quantity, it may be called a “batch” certificate or a “shipment” certificate. Meat and poultry products, for which each batch or consignment must be certified, generally receive a batch or shipment certificate.

Yearly certificate for a specific product or brand. These certificates are commonly used for non-meat food and non-food products, where the product is made using the same process and ingredients throughout the duration of the certificate.

Duration of a Halal Certificate

The duration for which a certificate is valid depends upon the type of product. A site registration certificate may be issued for one or several years. It remains valid through the expiration date or as long as the service agreement between the parties remains effective.

A batch certificate issued for a particular consignment is valid for as long as that specific batch or lot of the product is on the market, generally up to the product expiry date or “use by” date.

For certified products made according to a fixed formula, a certificate may be issued for a period of one, two, or three years. The product remains halal certified as long as it meets all the production, labeling, and marketing requirements established and agreed upon by the company and the halal certifying organization.

Who Is Authorized to Issue Halal Certificates?

Any individual Muslim, Islamic organization, or agency can issue a halal certificate, but the acceptability of the certi-

fy depends upon the country of import or the Muslim community served through such certification. For example, to issue a halal certificate for the products exported to Malaysia and Indonesia, the body issuing the halal certificate must be listed on that country’s approved list. More than 200 organizations in the world issue halal certificates, but only a handful of them have been approved by MUI (Indonesia) and JAKIM (Malaysia). Malaysia has recently culled down its list of approved organizations. The majority of the organizations taken off the list by Malaysia were either not active in issuing halal certificates for Malaysia or failed to meet JAKIM guidelines.

The food industry needs not only to understand the halal requirements for different countries and the principles of halal, but also to understand the certifying organizations that would best meet their needs. Such an organization should be able to service their global needs and be acceptable to the countries of import as well as to the local Muslim community. An independent organization acting as a third party endorser, without any conflict of interest, can best serve the halal certification needs of a company.

Currently, Malaysia and Indonesia are the only countries that have formal programs to approve the halal certifying organizations. Other countries like Saudi Arabia, Singapore, Kuwait, United Arab Emirates, Egypt, and Bahrain may also make approvals of organizations for specific reasons in specific regions.

Which Products Can Be Certified?

The complexity of manufacturing systems and the maximum utilization of animal by-products has caused many otherwise halal products to be doubtful and questionable. Therefore, any food product consumed by Muslims can be certified, whether the product is consumed internally or applied to the body externally. Medicines and pharmaceutical products used for health reasons need not be certified; however, knowledgeable consumers look for products that are halal certified or are free from doubtful ingredients and meet halal guidelines. The products that may be certified include meat and poultry and their fresh, frozen, and processed products; meat and poultry ingredients; dairy products and dairy ingredients; prepared foods and meals; snack food products; candy and confections; bakery products; French fries and other fried products; ice creams and frozen desserts; seafood products and food bases; fats and oils; condiments,

sauces, and salad dressings; spices, seasonings, and breadings; flavors and flavorings; cosmetics and personal care products; pharmaceuticals and nutraceutical products; nutritional and dietary supplements; food ingredients; packaging materials; and processing aids and defoaming agents.

The Halal Certification Process

A request for a halal certificate may be initiated by an importer or the marketing department of a company. The first step is to choose a certifying organization that meets the company’s needs for the markets it serves or would like to serve. Many importing countries like Saudi Arabia, United Arab Emirates, other Middle Eastern countries, Singapore, Indonesia, and Malaysia have government-mandated halal programs, whereas the predominantly food-exporting countries have independent certification bodies. If the company’s target is a specific country, it is better to use an organization that is approved, recognized, or acceptable in that country. If the market area is broader or even global, then an organization with an international scope would better meet the needs.

The process starts with the company filling out an application explaining the production process, the products to be certified, and the regions in which the products will be sold and marketed, along with specific information about the component ingredients. Most certifying organizations review the information and set up an audit of the facility. At this time, it is advisable to negotiate the fees and have a clear understanding of the costs involved. In some cases, the cost may run into thousands of U.S. dollars per year.

During the review of the ingredient information and/or the facility audit, the organization may ask the company to substitute any ingredients that do not meet its guidelines. Generally, the company and the halal certifying agency sign a supervision agreement. Then a halal certificate is issued for one year or for a shipment of a product. Overall, the process for halal certification of food products is not complicated.

Use of Halal Markings

When a product is certified halal, a symbol or halal markings are normally printed on the package to inform the consumer. For example, the Islamic Food and Nutrition Council of America (IFANCA) uses the crescent M symbol, which signifies “good for Muslims.” Several other symbols are used by the halal certifying agencies, like “Ha,”

“Arabic world halal,” or “halal.” However, a product would be better accepted by Muslim consumers if the logo were from a recognizable halal authority or, in the case of imported products, signified a reputable halal certification organization.

What about GMO Food?

Muslim scripture contains no specific mention of genetic engineering and genetically modified organisms (GMO) in food and ingredients because these scientific developments are very recent. So the products are qualified according to conventional halal guidelines. Genetically modified or engineered products with genes from haram animals would have great difficulty being accepted by Muslims. For example, since pork is prohibited, by extension, any products made with pig genes are considered haram by many scholars and may not be accepted by Muslim consumers.

A scientist can explain a new scientific development; likewise, a religious scholar can interpret whether or not the development violates any of the tenets of Islam. There are some key points to keep in mind when dealing with GMO food as halal.

1. Haram is usually associated with what is harmful and unhealthy, and the safety of GMO foods is a key issue for halal, too. If it is determined beyond doubt that any of the foods or ingredients developed through genetic modifications are harmful and unhealthy, the regulatory bodies, including Islamic organizations, will not approve them.

2. There is always a better replacement for something that is haram, especially through biotechnology. For example, until the mid-1980s porcine pepsin was used to extend the supply of calf rennet in cheese manufacture. Since the introduction of GMO-derived chymosin, the use of pepsin as a replacement for calf rennet has practically vanished. This is a big plus for biotechnology in the area of halal foods (2).

3. Good intentions do not make haram into halal. For example, if scientists try to make pigs cleaner and disease-free or grow pig organs for food in the laboratory, such organs would still be haram.

4. Muslim consumers are required to avoid doubtful things. If a Muslim consumer feels that GMO foods are doubtful, then he or she must avoid them. Presently, doubtful GMO foods are the ones modified with the use of the genes from prohibited animals.

Biotechnology is an extension of plant and animal breeding and genetics, which

have been practiced for decades and in some cases for centuries. One example of animal breeding dates back to prehistoric times: when a donkey and a mare were crossbred to produce a mule. The meat of a donkey is not accepted as halal food, and therefore neither is the meat of a mule. Plants have always been bred with closely related plants and animals with closely related animals. Since genes were identified, scientists have learned how to move a gene from one species to a more distant species. Currently, genes from fish, insects, or pigs can be introduced into plant species without affecting appearance or taste but giving the plants better disease resistance or nutritional advantages. Muslim scholars are striving to come to an acceptable decision about this kind of product.

At the inception of Islam, almost 14 centuries ago, Islamic dietary laws were the only regulations for the safety and wholesomeness of food products. Currently, food safety is the responsibility of government agencies and organizations like the United Nations Food and Agriculture Organization (FAO) and World Health Organization (WHO). Issues relating to the safety of GMO foods are deferred to such agencies; here we are only concerned with the religious aspects of GMO foods. Two government agencies in Malaysia, IKIM and JAKIM, concur that GMO foods are halal as long as genes are used from halal sources and production methods are halal compliant (6).

Conclusion

As the food industry develops and produces products such as processed meats, baked goods, fried items, sauces, shortenings, salad dressings, and nutritional products, it will be important to understand how their choices affect the halal status of such products.

In summary, halal certification is a cost-effective quality assurance program

that increases the acceptability of certified products for a large group of consumers. The halal logo is an authoritative, independent, and reliable testimony to support halal food claims. It helps increase or maintain the market share of a product, enhances the marketability of products in Muslim countries and markets, and boosts a company's image by showing that it meets its consumers' varied needs.

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Suggested Reading

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