

Date of expedition: 2019/06/20 Date Acceptance: 18/07/2019

Wholesome Food in our Daily Life.

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تهدف هذه الدراسة إلى بيان أهم الأضرار الناجمة عن التصنيع الغذائي وكيف ينبغي أن نتصرف إزاءها، وتطرح الإشكالات الآتية: ما هي العوامل التي ساعدت على انتشار الأطعمة المصنعة؟ وما هو دور التشريعات الحكومية، والمجامع الفقهية، والخبراء، في تحسيس الناس ووقايتهم من مخاطر التصنيع الغذائي؟ يسلك البحث منهجا استقرائيا في تتبع أضرار بعض الأطعمة على الصحة، ومنهجا تحليليا في بيان كيفية تقاديبها بالتحسيس وتصحيح المفاهيم وإعادة النظر في تعامل التشريعات والمجامع الفقهية إزاءها. ويقوم على دراسة أهم الأضرار الناجمة عن الإضافات الغذائية، والهندسة الوراثية، واستعمال المبيدات والهرمونات والأعلاف الحيوانية المعالجة، وبيان النقائص والثغرات الموجودة في الميدان؛ تشريعا؛ بنقص التغطية القانونية، وغض الطرف عن التجاوزات. وعلميا: بوجود فتاوى تبرر الواقع. وعمليا؛ بتقاعس المسلمين عن تصنيع غذائهم، وتقصير الخبراء في تحديد تلك الأضرار وتحسيس الناس بها.

ومن نتائج البحث أن الإسلام يحرم كل ما هو ضار، ومرد كثير من العادات الغذائية السيئة إلى الجهل، ولبعض الفتاوى دورٌ في تهيؤ الأمر وتكريس الواقع. **كلمات مفتاحية:** الإضافات، السمية، التيسير، الاستحالة، الاستهلاك.

Summary:

The purpose of this study is to elucidate the most important of damages caused by food industry and how people should behave toward them. It poses the following problem: What factors contributed to spread of food industry? What is the role of the government's legislations,

jurisprudential councils and experts in raising the populations' awareness and preventing them from its hazards?

In this research, an inductive approach is used to examine the damages of certain foods on health, and an analytical approach to evaluate these fears and how to avoid them by sensitizing, correcting concepts and reconsidering the positions of legislation and fatwa about these products. It seeks to indicate the most the most significant damages caused by food additives, genetic engineering, excessive use of pesticides and hormones as well as modified cattle food, and to to show the gaps in the following fields:

- Legislative: lack of legal cover, abuse and absence of rigor in application.
- Scientific: the existence of fatwas that justify the facts.
- Practical: the inability of Muslims to produce their own wholesome food, and the indifference of experts towards identifying these damages and sensitizing the population, which led to the spread of ignorance and apathy.

The research has led to the following conclusions:

- Islam orders us to eat wholesome food and forbids anything that harms the body, the mind or religion.
- Many bad eating habits are due to ignorance and indifference, and certain fatwas help to alleviate the gravity of the situation and to justify the reality of things.

Keywords: Additives, Toxicity, facilitation, Istihala, Istihlak.



Introduction

Allah has allowed us to eat only wholesome, pure and harmless food.

He said: "O people! Eat of what is lawful and wholesome on earth, and do not follow the footsteps of Satan. He is to you an open enemy" (al-Baqara, 168). The Almighty has linked permission and prohibition to reasonable causes for human's benefit.

Nowadays, processed foods are attracting people's attention more than ever before because of the addition of many products whose source as well as their manufacturing process, utility and harm are known only to a small number of people whereas the majority of them consume without even asking.

Our Islamic countries continue to import more and more foods decorated by experts, and modified by biotechnologists, whose sole purpose is achieving more and more profits.

Despite the enactment of legislations to control the situation and to study the food ingredients and additives in order to reduce their damage, many of these laws have not been applied in the field, because of several factors:

- The large companies' dominance of food industry markets.
- Constant innovations in manufacturing methods, and fierce limitless competition.
- Cryptography and concealment of many substances that are introduced in food under the pretext of "confidentiality"!
- People's ignorance and indifference.
- The existence of legal lacunas and even 'fatwas' contributing to the consolidation of this reality. Author(s) are responsible for the completeness of their manuscript file. The committee will not accept the incomplete file.

Part 1- The main damages caused by food processing

1. 1. People's concerns:

Since 1958, attention has been paid to additives especially when the American Food Act," Delany Clause", stated that the use of any food additives which cause cancerous tumors for experimental animals must be prohibited¹ Since then, additives have become one of the hottest and controversial topics.

In 1969, a Canadian laboratory reported that the artificial sweetener "cyclamate" was carcinogenic, despite of being used

for more than 20 years. Hence, the campaign against all chemical substances added to food emerged.

After that, several researches on colouring, preservative and flavouring substances and their damages were issued. This led the competent authorities to reconsider their evaluation of additives.

The term additive coincided with the end of World War II when many synthetic matters were added to food. Between 1949 and 1960, more than 400 new additives were created, and in 1970, 2500 additives were used in America.

The regulations about processed food in general, and additives in particular, began in the early 20th century to avoid any toxic or bacterial risks to the consumer. In Europe, each EU country has taken its position and established its own laws. A communication network to exchange information between these countries has also been expanded and it led to the unification of those laws. From 1957 to 1988, long negotiations and difficult discussions were held in order to achieve this legal unity and bring legislations closer. The first step of the agreement was the E-numbers on 15 May, 1985. In December 1988, the EU Member States issued legislations, which specify additives to be used in human food, and were subsequently completed in 1994 and 1995.

Globally, several organizations have shown interest in the issue since the 1950s, such as the Executive Committee of the World Health Organization 'WHO' and the Food and Agricultural Organization 'FAO'. In 1956, Joint Expert Committee for Food Additives 'JECFA' started evaluating the safety of food additives. It took in charge the determination of the ADI (Accepted Daily Intake) during its first session in Rome. In 1958, the FDA's (Food and Drug Administration) law was amended. The Delaney clause was cited. In 1962, the WHO / FAO Conference issued a recommendation calling for international food standards.

The executive organism of this project; “Codex Alimentarius” was created in 1964. It issued a decision requiring labelling in order to guarantee the consumer’s safety².

However, many facts distort this concern to ensure the consumer’s safety as:

- The presence of foods that manufacturers are not required to mention their additives, such as bread, vegetables and meat which has been treated with hormones and antibiotics³.

- Existence of accumulation and uncontrollability. Additives are often associated with a particular type of food, such as nitrite in cheeses and meat products, as well as in ice cream and confectionery. Many of the consumers of these foods exceed the daily dose intake⁴.

Although the list of additives that are Generally Recognized As Safe “GRAS” has been issued by the Food and Drug Administration (FDA), in 1968, controversy arose over monosodium glutamate and the group of cyclamates which were then considered carcinogens⁵. Consequently, a broad campaign was launched against additives and food processing in general⁶.

People’s concerns have been aggravated by the emergence of diseases such as foot-and-mouth and mad cow diseases. The uncontrolled outbreak of these diseases has led to a loss of confidence in the organs and systems in charge of food safety control. Some incidents of neglect and fraud have also raised their fear, such as the chicken dioxin scandal in Belgium.

The purpose was always to reduce costs and to make more profit. A member of a Consumers Association declared: "We have always felt that our food is safe. We think our food is controlled, and if it were not safe it would be discarded. We are wrong! Some manufacturers take advantage of people's naivety to maximize profits by recycling waste, as evidence of this the emergence of the mad-cow disease, chicken dioxin, GMOs, and hundreds of drugs that are withdrawn from the market annually after the irreparable damages they cause”.

1. 2. Potentially harmful substances.

1. 2. a. Food Additives:

At the top of the list come the colorants. Most of them do not degrade in the intestine or in the liver, such as Tartrazine E102, Allura Red E129, and Curcumin E100. Some of them are suspected to cause tumors, such as liposoluble Azoic tints⁷. The colorants also cause allergies to some individuals, especially the tartrazine, also called FD & C yellow N 5 which is widely used in beverages, sweets, ice cream and biscuits⁸.

In 1973, the American pediatrician Benjamin Feingold conducted a study linking tartrazine to attention deficit hyperactivity disorder (ADHD)⁹. Allura Red E129, also called FD & C red N 40, was accused of causing fetal malformations and genetic mutations. It is proscribed in the European Union, Britain, Switzerland and Sweden¹⁰.

In 1979, an American study proved that Erythrosine E127 caused thyroid cancer and physiological disorders to laboratory mice¹¹. Canthaxantine E161g, added to sausages, fish feed and chicken to color their eggs; causes skin damage and retinal injuries¹²!

Sodium, potassium and calcium propionate used in bread, desserts and some meat products are notorious preservatives. Studies have shown that they caused cancer to experimental animals after consuming them for long periods¹³.

Sodium nitrite E250 and Potassium nitrite E249 which are used to preserve meat products and some types of cheese cause high blood pressure, and can be converted in the presence of amines to carcinogen nitrosamine¹⁴.

Some antioxidants, such as BHA E320 and BHT E321 promote cancer growth and cause liver and thyroid hyperplasia in mice. They are found in many foods such as cheese, mashed potatoes and ready-made soups. Although it is one of the most effective antioxidants in oils, especially frying oil, only seven EU countries allow them to be used¹⁵.

Sodium Glutamate E621, which is added to soups and meat products in particular, causes an allergy called Chinese kitchen

syndrome¹⁶. Its symptoms are headache, chest pain, muscle stiffness... It also affects the visual acuity by damaging the retina and causes glaucoma¹⁷.

Saccharine E954, cyclamate E952 and aspartame E951 are likely to cause cancerous tumors. It has been shown that they cause bladder, testicular and brain cancer in experimental animals¹⁸.

Despite these facts, the consumer is often misled by advertising, which is only interested in marketing, even by spreading lies and covering up the defects and shortcomings.

1. 2. b. Genetic Engineering:

The first genetic modification happened in 1973 on *Escherichia Coli*. Then, it spread for other living organisms. The first meeting of scientists specialized in the field to study the prospects of these new technologies and risks, was held in 1975 in California. In 1977, the decision to allow these manipulations was taken provided that they are adequately controlled¹⁹.

Until now, agricultural crops represent the main group of transgenic organisms used in the chain of human processed foods²⁰. Today, about 60% of processed foods in industrialized countries, 29% of the world's edible oil and 62% of the cattle protein powder contain genetically modified soya²¹. Subsequently, Round-up has become the best-selling pesticide in the world, in spite of its dangers on health and environment²².

Several associations and organizations in many countries have opposed GMOs projects because of their unforeseen risks²³.

The two main sources of concern for human health about GMOs are:

1- They cause allergies to some people. Arpad Puszt was the first to draw attention to this problem. In 1995, he studied rats fed by potatoes which were genetically altered to produce lectins GNA; a natural insecticide, to protect them against aphids. He found that the potatoes damaged the animals' gut, other organs, and their immune system²⁴.

2 - The bacteria - especially the ones that live in the human intestines - may acquire resistance to antibiotics. The marketing of Flavr Savr tomato has raised concerns about the existence of kanamycin-resistant gene in it. Kanamycin is a drug that has been used as a last resort in the treatment of rebel pulmonary tuberculosis. Ampicillin - which is a marker in many genetically modified plants- is widely used in treatments requiring multiple biotherapy²⁵.

It is known that the resistance phenomenon has greatly reduced the list of effective antibiotics²⁶.

Producers and legislators in the United States have eased the seriousness of the situation, considering that transgenic plants are equivalent to traditional plants according to what they called the Principle of Substance Equivalence which allowed the marketing of these substances without labeling them nor studying them sufficiently.

Part 2: The Islamic countries' reality about processed foods

It is regrettable that the Islamic nation does not produce most of its food. However, it rather relies on developed countries that do not observe the minimum Islamic standards in food processing. The affliction lies in the importation of these foods which contain hidden material that most people do not know, and the labeling does not give relevant details, in addition to the rapid development of new materials and the lack of awareness among Muslims.

2.1 Legislation:

The Muslim countries have stated regulations and enacted food laws lately. Their interest was limited to meat and its derivatives, while the rest of the processed foods were only slightly studied and classified. However, in spite of these legislations, there were several shortcomings and abuses; including:

- The great ignorance of these materials, their sources and in which foods they can be found.

- Labels are generally defective and not given any importance by customers. Most of them are even unable to read them, understand and decipher their symbols.

- Some manufacturers often exceed the allowed intakes by either cheating, or ignorance. They exceed the daily dose to give more attraction to their product by supplying the amount of the additives, without knowing that they may have the most serious consequences on the consumers' health. All this occurs in the absence of strict control and lack of technical equipment necessary for conducting laboratory analysis.

As for genetically modified organisms, as long as international legislation considers them equivalent to traditional foods and does not impose labeling on them, their absence from our markets becomes impossible. Since no sign or trace indicates the modified foods from others!

2.2. Fatwas between exaggeration and negligence.

2.2. a- "Istihala" and "Istihlak"

It is observed that some "fatwas" tend to justify this situation, and even call for its continuation, based on some fundamental principles as "Istihala" , "Istihlak"²⁷, the claim of the lift of embarrassment and facilitation.

For instance, the Islamic European Council issued a fatwa on food additives stating:

"These materials referred to by the letter (E) plus a number do not affect the purity of food or beverages ... If any food or beverage contains some of these additives, it remains originally permissible. Our religion is simple. Allah does not enjoin upon us to search and dig in similar situations"²⁸.

Thus, came the fatwa general and decisive! According to what is stated, all of these substances have been transformed by "istihala" which means "the turning of the nature of any matter and the changing of its characteristics."

This leads to believe that these harmful substances have been transformed and become harmless. Such fatwas let the door wide-open for this situation to go on and to companies to make more profits at the expense of people's health.

Some others rely on “Istihlak” -which means the disappearance of the impure matter (najis) in a big quantity of pure fluid to the extent that none of its effects remains- claiming that the amount of additives is so small that it does not deserve any attention.

But when we examine this situation, we find out that:

All the sacred texts give most importance to the effects of those substances.

It goes without saying that food additives and contaminants have great effects and make obvious changes even if they are added in insignificant quantities²⁹.

An obvious example of this is the toxic dioxin; 4 picograms may cause terrible harm³⁰. According to the European law CE 396/2005 on contaminants in foods: "The percentage of traces shall not exceed 0.01 milligrams per kilogram except as provided by law"³¹. Therefore, these ratios are very influential, despite their limited quantity.

In contrast to the exactitude and precision in food processing in the West, some Islamic studies contain too many generalizations and are far from scientific accuracy.

The "Islamic Vision" Conference stated: «A jurisprudential norm affirms that the ‘rare’ is unconsidered because the rulings are based on the ‘most’. Small percentages such as 2% and 3% are not taken into consideration, because the rulings must be related to the most!”³².

In addition to that, the accumulation of these unwholesome substances must be given utmost consideration because foods are repeatedly consumed. If a harmful substance accumulates in the body, after a short period, it will be capable of causing serious damages.

It is noted that there is a lack of accuracy in the specification of the scientific concepts and the ascertainment of the reason (tahqiq al manat).

2.2. b- Facilitation and lifting of embarrassment

Nowadays, it is noticed that many Muslim scholars tend to adopt the principle of facilitation and lifting of embarrassment when dealing with these matters.

For instance, one of them said: "We would like Muslims to have medicines without alcohol or pork products at all... We should recommend that Muslims have their own companies that manufacture medicines according to the requirements of their religion, and yet we cannot escape from reality; we must acknowledge that reality imposes itself on us"³³.

Indeed, using the concept of facilitation excessively perpetuates this self-imposed reality. As long as the fatwas allow these foods to avoid embarrassment, this is a sufficient justification to let things unchanged. The Muslim does not find it necessary to seek changing as long as he finds himself in the circle of Sharia. Even if they are Muslims, some manufacturers find in these fatwas the best support not to think to change the situation.

It is true that the Shari'a came to facilitate and lift the embarrassment from those in charge. However, the treatment of jurists to the issues of society from the angles of individuals' suffering, without regard to the totality of the Ummah, led to an imbalance in the process of ijtihad and jurisprudence. One of the effects of this is the scholars' view on the evidence of hardship and embarrassment.

Excessive consideration of this asset may give the opportunity to some companies to persist in monopolizing the manufacturing of food, especially as it has been shown that they do not care about Health of people. They are interested in increasing their profits only. On the other hand, it makes the Muslims carry on, as they do today, in failing to manufacture their own food, especially as Allah has provided them with all the necessary raw materials for this manufacture.

The huge figures in this area are the most obvious proof; these industries are based on massive capitals. How not?! Since

they deal in matters that are widely consumed and over-demanded all the time.

If the scholars today looked at the interests of the nation, they would see that it is wrong to issue fatwas which permit to turn a blind eye on what is inserted into the processed foods under the pretext of facilitating and lift of embarrassment.

Moreover abstaining from most of these foods does not cause embarrassment because considering facilitation must come originally with necessities. However, most of what enters the ports of Muslim countries is no more than luxuries which -when investigated- their damage is greater than their utility despite the fact that Allah has revealed what is better and more beneficial to us.

The Islamic identity is not limited to beliefs and pillars, but to all the issues, good and evil, and even the details of behavior, habits and ways of living. There is no doubt that the issue of food is central in that. Facilitation is not suitable for weighting without a serious consideration of the real effects on people. And when permission is granted, if it is employed in isolation from its objectives, it may lead to the reverse of what is wanted by facilitation and moves from compassion to the opposite.

Conclusion:

Transactions in Islam are based on contentment.

Hakim bin Hizam (May Allah be pleased with him) reported that the Messenger of Allah (PBUH) said: "Both parties in a business transaction have the right to annul it so long as they have not separated; and if they tell the truth and make everything clear to each other, they will be blessed in their transaction. But, if they conceal anything and lie, the blessing on their transaction will be eliminated"³⁴. That is why:

- Traders and manufacturers should pay more attention to transparency in their labeling. They should also clarify the contents of their products to inform people about their source and how they are manufactured so that they can have the choice to accept or reject them.

- Experts and jurisprudential councils have the duty to study the damages that can be caused by marketed foods, educate people about their negative effects and look for the right alternatives.

- Governments have to enact laws and regulations to control and ensure the safety of the food industry, and follow-up their application on the ground.

Nutrition education programs should be included in the school curriculum.

- The media - which have become a daily people's concern – may contribute to that education:

- At the scientific level by issuing specialized scientific journals and periodicals.

- At the TV level by programs that go beyond mere cooking and gastronomy shows.

- People should return to natural food and establish healthy eating habits among them.

Finally, Muslims must find out the most appropriate methods and techniques to control these sciences. Because of the influence of globalization, manufactured products are no longer confined within borders. As a result, they are unavoidable and are consumed by all. It is imperative for us to know how to trace their effects and to identify them in order to avoid their dangers. The nation of Islam has to be the pioneer in this since it is mentioned in the Surah Al - Baqarah: “Thus we made you a moderate community that you may be witnesses to humanity, and that the messenger may be a witness to you” (al-Baqara, 143).

¹ Assaid ali kamil, *Al-mawad al-moudafa lilaghdy* (Food additives), 1st ed, Amman, Jordan, 1995, 29.

² Jean-Louis Multon, *Additifs et auxiliaires* (Additives and food processing aids in the food industry), 3th ed. Lavoisier Tec. & Doc. Paris 2003, 18. Barry L. Smith, *Codex alimentarius*, abridged version, Joint FAO / WHO Food

- Standards Program, Codex Alimentarius Commission, Rome, 1992, 11.60
- ³ Fabienne Maleysson, Additifs alimentaires, les industriels en rajoutent. (Food additives, manufacturing add), Que choisir, N° 407, septembre, Federal Union of Consumers, France, 2003, 16-18.
- ⁴ P. Jardrian, les additifs, sûrement utiles, sont-ils surs? (additives, surely useful, are they sure?) Danone, Paris, 1998, 8-9.
- ⁵ R. Longet, Additifs Alimentaires, dossier de l'environnement (Food Additives, Environmental File), Volume 1, 2nd ed, George editor, Genève, 1991, 47.
- ⁶ Jean-Louis Multon, op. cit, 67-68.
- ⁷ Fabienne Maleysson, op. cit, 19.
- ⁸ Jean-Louis Multon, op. cit, 380-382.
- ⁹ Jean-Louis Multon, op cit, 366.
- ¹⁰ Hamad Nizar 1992 takanat tasnia al-aghthia wa hifthiha (Food processing technology & conservation), 2nd ed. Al Assad Library, Damascus, 121-123. Jean-Louis Multon, op. cit, 383.
- ¹¹ Jean-Louis Multon, ibid, 369.
- ¹² Fabienne Maleysson, op. cit, 18.
- ¹³ Assaid ali kamil, op. cit, 143-142.
- ¹⁴ Fabienne Maleysson, op. cit, 23.
- ¹⁵ Fabienne Maleysson, ibid, 18. Sifr al-Kahtane, al-Hawari al-ati'ma wa al-achriba (Food and drinks, Islamic vision of

- some health problems), Part II: Forbidden and unclean substances in food and medicine, Kuwait, 1996, 529.
- ¹⁶ Fabienne Maleysson, op. cit, 19.
- ¹⁷ Geneviève Di Costanzo, Sodium Glutamate, Encyclopædia Universalis, 2006.
- ¹⁸ Jean-Louis Multon, op. cit, 345. Fabienne Maleysson, op cit, 18, 22. Ghayath Samina & Adel Safar Al-mawad al-moudafa lil al-aghthia (Food additives), University of Damascus Publications, 1993, 236.
- ¹⁹ Michèle Chouchan, GMO, Research Issues (Ministry of Research, France, 2001, 4-5.
- ²⁰ Steven Nottingham, Taamouna al- mouhandas wirathyan (Our Genetically Engineered Food), Nahdet Misr Publishing, Cairo, 2000, 16-18.
- ²¹ Steven Nottingham, ibid, 189-190.
- ²² Syngenta, Leader de l'agrobusiness (Leader of agribusiness), educagri editions, academy of Montpellier, France, 2005, 100.
- ²³ John Madeley, le commerce de la faim (the hunger trade), workshop edition, Paris, 2002, 34-36.
- ²⁴ Amjad Kacem, Aghdya mouhandasa wirathyan wa makhatir mouhtamala (Genetically engineered foods and potential health risks, scientific prospects) www.amjad68.jerran.com. 2007
- ²⁵ Steven Nottingham, op. cit. 140-143.

- ²⁶ Guérin-Marchand, Claude reyraud, Faut-il avoir peur des OGM? (Should we be afraid of GMOs?) Hachette, Phare International, France, 2000, 46.
- ²⁷ Islamic Organization for Medical Sciences, Ro'ya islamia libaa'd al-machakil assihia (Islamic vision of some health problems), Part II: Forbidden and unclean substances in food and medicine, Kuwait, 1996, recommendations, 1080.
- ²⁸ The European Council for Fatwa and Research, Fatwa 19 (1st volume, Dublin, 2002, 1/320.
- ²⁹ See, for example: Assaid ali kamil, op.cit. 162, table 2.7, where we find very small percentages like 0.01% and less prohibited by the Committee on Food and Drug (Jekfa) for their toxicity by the accumulation.
- ³⁰ La dioxine dans l'alimentation, (Dioxin in the diet), <http://www.liste-hygiene.org>, 2006.
- ³¹ G.Wuster 2006 Les nouveaux textes récents ou prévus concernant les pratiques phytosanitaires (New and recent texts on phytosanitary practices), <http://www.fruits-et-legumes.net>.
- ³² Abdallah annadjar discussions (Islamic vision of some health problems), Part II: Forbidden and unclean substances in food and medicine, Kuwait, 1996, 1063.
- ³³ Islamic vision, ibid, 1045-1047.
- ³⁴ Al Bukhari, Assahih, kitab al-bouyoua, bab assidk fi al baya wa al bayan (honesty in the sale and statement), 3th ed. Dar Ibn Katir, Beirut, 1987, Hadith n° 1532, 3/1164.