

## Evaluation of Judicial Seizures Violates of Meat, Fish and Their Products in Ismailia Governorate Markets

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### Abstract:

This study was conducted to evaluate the judicial authority and hygiene of food inspection committees in the field of public health control over different food items during 2023. A total of 69317.7 kg of meat, poultry, fish, and their products that violate food laws were seized, with a total of 197 violation reports. From which 2037.5 kg of food items with 74 violation reports were fit for human consumption but put under the disposal of the prosecution due to either unknown source, lacking validity periods, and/or the absence of product specifications. Meanwhile, 67,280.2 kg of food items with 123 violation reports were judged unfit for human consumption due to expired validity dates or apparent spoilage. The condemnation of seized items for unfit food items was carried out by a committee designated by the public prosecutor to dispose of these items in a cooker belonging to one of the companies or in a public waste dump. Meanwhile, allowances for the sale of the fit, seized food items are permitted to be sold with the highest market price, and the proceeds are sent to the court's treasury. There are a lot of weak points in judicial seizure which lead to losing the case due to the loss of one of its element, which leads to the escape of the cheater responsible for fraudulent of meat, Poultry, fish and their products.

**Key words:** Violation reports of fraud food, violates of Meat, ES 2005, Meat products validity.

### 1.Introduction

Throughout history, meat has been a fundamental part of the human diet and remains so in various

societies. While the type and quantity of meat consumed vary across nations and traditions, most Western meals feature a meat-based

dish complemented by vegetables (Geiker *et al.* 2021). When food items are subjected to undesirable conditions especially in environmental condition and contamination from different sources during preparation, transportation and storage will undergo deterioration and lost their nutritional values which led to high economic loss due to condemnation of the spoiled item. Spoilage of meat, poultry, fish, and their products during distribution are considered one of the most important problems facing consumers, producers, and distributors (Ruxton and Gordon, 2024). Poultry, fish, and meat undergoes rapidly to oxidative deterioration by development of rancid odour and repulsive taste even if these products are kept in refrigerated or frozen storage due to high contents of unsaturated fatty acids (Mir 2017 and FAO, 1980). There are also intentional or unintentional fraud was done to cover the spoilage of the product or to sell a commodity that is not fit for human consumption. There are also many meat and meat products fraud by tampering with the date of production, expiration, and shelf life. There is also impersonation of other well-known brands or the sale of meat and its products without any data, which leads to their execution (Meat fraud, 2022). Due to lack of literature this paper is considered the first of its kind in this field.

## 2. Materials and Methods:

### 2.1. Steps for assessing the violation:

The inspection, detaining and preparing a recommendation to seize meat, poultry and fish in markets in Ismailia province when there is a reason to believe that meat poultry and fish and their products are adulterated, misbranded, or otherwise is not in conformity with national and international laws for quality and wholesomeness of the food items. The examination was carried out organoleptically as described in the Egyptian standard specification by the judicial seizure campaign specialist which applied as appearance, colour, texture and consistency, smell and can be perceived by the inspector sense and in addition to inspection of the food items for their validity period, food items specifications and nutritional factors or together forms of intentional or unintentional food fraud. Therefore a total of 69317.7 kg of meat, fish, and their product seizures with total 197 violation reports and 2037.5 kg fit for human consumption but put under the disposal of the prosecution with 74 violation reports and 67280.2 kg unfit for human consumption with 123 violation reports were recorded. The Egyptian Standard Specifications 2004 and 2005 which applied were:

2.1.1 Inspection of fresh meat carcasses and meat cuts: The

method was carried out according to (*ES: 1986*); *FAO (1990) and Gracey et al., 2015*).

2.1.2 Inspection of Frozen meat was carried out according to *ES: 1522 - 2005*

2.1.3 Inspection of Chilled meat according to *ES: 3602 - 2005*

2.1.4 Inspection of frozen liver according to *ES: 1473-2005*.

2.1.5 Inspection of Frozen kidneys, hearts, spleen, brain, pancreas, and tongue according to *ES: 2062 - 2005*.

2.1.6 Inspection of Pure minced meat according to *ES 1694 – 2005*.

2.1.7 Inspection of Frozen meat ball according to *ES: 1973 – 2005*.

2.1.8 Inspection of Luncheon meat according to *ES: 1114 – 2005*.

2.1.9 Inspection of oriental Frozen sausage according to *ES: 1972-2005*.

2.1.10 Inspection of Canned sausage according to *ES: 1971 – 2005*.

2.1.11 Inspection of Frozen beef burger according to *ES: 1688 – 2005*.

2.1.12 Inspection of Pastrami according to *ES:1688 – 2005*.

2.1.13 Inspection of hot dog according to *ES: 3492 – 2005*.

2.1.14 Inspection of Frozen poultry according to *ES: 1090 – 2005*.

2.1.15 Inspection of Heat-treated poultry meat products *ES: 3493-2005*.

2.1.16 Inspection of Chicken meat products according to *ES: 2910-2005*

2.1.17 frozen fish inspection was carried out according to *ES: 1-889 of 2005*.

2.1.18 Smoked fish was carried out according to *ES: 288 - 2005*

2.1.19 Salted fish inspection was carried out according to *ES: 1725-1989*

### 3.Results and Discussion:

The results given in **Table(1)** revealed that the number of fit meat items (but has no products specification or slaughter outside abattoir) and unfit ( expired food items or apparent spoilage) food items and it was considered a violation of the law and put at the disposal of the prosecution of different meat cuts for violating the following standard specifications (*ES: 1986*), beef liver (*ES: 1473-2005*), fats (*ES: 1471 -2005*), processed meat, chicken meat, and their products (*ES: 2910-2005*), Duck meat (*ES: 2910-2005*), Quill meat (*ES:1090 -2005* ) , fish and fish products (*ES:2005:No: 1-889* and *ES:2005: No: 288*) during inspection campaigns in Ismailia Governorate markets were 37(29 ; 8 ) ; 15 (4 ;11) , 8 (1;7), 64 (15;49), 52(20;32) 1(0;1),1(0;1), and 19 (5;14) respectively with the total violet report of 197(74;123). While in **Table (2)** showed that the quantity and wholesomeness status of the Judicial Seizures of fit of total meat cuts were 730.5 kg(76.4%); beef 305 kg (31.9%), goat 148 kg(15.4%) (*ES: 4334 - 2004*)., veal 135kg(14.2%) (*ES:*

**207-1980**) and mutton 142.5kg (14.9%) (*ES: No.207 -1980*); while for unfit of total meat cutswere 228.5 kg (23.6%); beef 188 kg (19.6%), goat 16 kg (1.7%) and veal 24.5 kg (2.5%).The result given in table (3) which revealed the wholesomeness status of the judicial Seizures of animals By-products for fit fat(*ES: 1471 -2005*). and liver (*ES:1473-2005*) were 13kg (0.1%) and 39 kg (0.3%) and unfit fat amount and liver were 14797 kg (97%) and 400 kg (2.6%) with total fit fat and liver 52 kg (0.4%) and with total unfit was 15197.0 kg (99.6%).The result given in **Table (4)** the wholesomeness status of the judicial Seizures of processed meat products the total fit processed meat products for human consumption but put under the disposal of the prosecution in spite of their fitness due to of unknown source or lacking validity periods were 425 kg (3%) and for unfit meat items were 13549.5 kg (97%) , while the wholesomeness status of the judicial Seizures of Poultry meat for fit chicken was 515 kg (22,8%) while for unfit chicken, ducks and quill meat were 1679 kg (74.7%); 20 kg (0.9%) and 35 kg (1.6%) with total fit ratio to unfit was 515 kg (22.8%) to 1734 kg (77.2%) respectively.The result given in table (6) the wholesomeness status of the judicial Seizures of chicken Giblets and By-products (*ES:1615-2005*), the total fit food items for consumption were 13 kg (0.1%)

and for unfit 15323 kg (99.9%) for fit giblets was 13 kg (0.1%) and unfit giblets and By-product were 14797 kg (96.5%) and 526 kg (3.4%) respectively.The result showed in **Tables (7)** revealed that the 14915 kg of chicken meat products were 14875 kg. (99.73%) was unfit for human consumption in which 15 kg (0.1%) Crispy (*ES: 3493 -2005*) and 8 kg (.05%) of expired nuggets packages (*ES: 3493 -2005*), 12 kg. (0.08%) of expired strips packages, 1000 kg (67.05%) spoilage chicken Shawerma (*ES: 2910-2005*) and 4840 kg. (32.45%) apparent spoilage minced chicken meat (*ES: 2910-2005*) and 95 kg chicken pane in which 57 (60.0%) fit for consumption but has no specification and 38kg (40.0%) unfit due to expiration date. The result showed in **Tables (8)** revealed that 6540 kg of fish and fish products were examined and found that 6335 kg (99%) unfit for human consumption. 83kg. (1.3%) of apparent spoilage chilled fish according to (*ES: 7828-1 (2004)*, 4599kg (72.6%) expired frozen fish packages (*ES: 1-889 (2005)*, 1355kg. (20.7%) expired salted fish packages (*ES: 1725 -1989*), 298kg (4.6%) apparent spoilage shrimp (*ES:7828-1 (2005)*) which found that 205 kg (1.0%) no specification product chilled fish was fit for human consumption. These results were higher than reported by *Abdelrahman et al., (2021)* for

Freight imported Fish Consignments.

The results obtained in this study showed that there is a lack of literature on these type of research in the markets of Ismailia Governorate and only one was carried out during three months from 1/1/2023 to 31/3/2023

(*GAMPF 2023*) in all Egyptian Governorates, therefore we cannot compare our results and this is considered the first study in this field to assess the quality and safety of the judicial seizure of food supplies for meat, fish and their products.

**Table (1):** *Number of violations of food items during inspection Campaigns in Ismailia Governorate Markets*

Food Items	No of violations		
	Fit	Unfit	Total
Different meat type cuts	29	8	37
Beef liver	4	11	15
Fats	1	7	8
Processed meat	15	49	64
Chicken meat and its products	20	32	52
Duck	0	1	1
Quill	0	1	1
Fish and fish products	5	14	19
Total	74	123	197

**Table (2):** *Quantity and wholesomeness status of theJudicial Seizures of meat cuts items*

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Beef meat cuts	493.0	305.0	31.9	188.0	19.6
Goat meat cuts	164.0	148.0	15.4	16.0	1.7
Veal meat cuts	159.5	135.0	14.2	24.5	2.5
Mutton cuts cuts	142.5	142.5	14.9	0.0	0.0
Total	959.0	730.5	76.4	228.5	23.6

**Table (3):** *Wholesomeness status of the judicial Seizures of animals' by-products*

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Fats	14810.0	13.0	0.1	14797.0	97.0
Liver	439.0	39.0	0.3	400.0	2.6
Total	15249.0	52.0	0.4	15197.0	99.6

**Table (4):** Wholesomeness status of the judicial Seizures of Processed meat products

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Hawawshy	39.0	39.0	0.26	0.0	0.0
Sausage	1206.0	27.0	0.19	1179.0	8.4
Hotdog	36.0	16.0	0.11	20.0	0.2
Pastrami	33.2	0.0	0.00	33.0	0.3
Hamburger	731.0	0.0	0.00	731.0	5.2
Meat balls	1414.5	6.0	0.04	1408.5	10.1
Luncheon	9255.0	0.0	0.00	9255.0	66.2
Shawerma	620.0	0.0	0.00	620.0	4.4
Minced meat	640.0	337.0	2.40	303.0	2.2
Total	13974.7	425.0	3.00	13549.5	97.0

**Table (5):** Wholesomeness status of the judicial Seizures of Poultry meat

Type	Amount/kg	Fit		Unfit	
		Kg	%	kg	%
Chicken	2194.0	515.0	22.8	1679.0	74.7
Ducks	20.0	0.0	0.0	20.0	0.9
Quail	35.0	0.0	0.0	35.0	1.6
Total	2249.0	515.0	22.8	1734.0	77.2

**Table (6):** Wholesomeness status of the judicial Seizures of Chicken Giblets and By-products

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Giblets	14810.0	13.0	0.1	14797.0	96.5
By- Product	526.0	0.0	0.0	526.0	3.4
Total	15336.0	13.0	0.1	15323.0	99.9

**Table (7):** Wholesomeness status of the judicial Seizures of Chicken meat products

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Crispy	15.0	0.0	0.00	15.0	0.10
Nuggets	8.0	0.0	0.00	8.0	0.05
Strips	12.0	0.0	0.00	12.0	0.08
Shawerma	10040.0	40.0	0.27	10000.0	67.05
Minced Meat	4840.0	0.0	0.00	4840.0	32.45
Chicken pane	95.0	57.0	60.00	38.0	40.00
Total	14915.0	40.00	0.27	14875.0	99.73

**Table (8):** *wholesomeness status of the judicial Seizures of Fish*

Type	Amount/kg	Fit		Unfit	
		kg	%	kg	%
Chilled fish	288.0	205.0	1.0	83.0	1.3
Frozen fish	4599.0	0.0	0.0	4599.0	72.6
Salted fish	1355.0	0.0	0.0	1355.0	21.4
Shrimp	298.0	0.0	0.0	298.0	4.7
Total	6540.0	205.0	1.0	6335.0	99.0

#### 4. Conclusion:

This study showed that meat, poultry, fish and their products are subjected to different forms of fraud as deliberate addition, substitution, tampering, or misrepresentation and expired food items or bad packaging, bad storage as well as the willful production of false or misleading claims about a product in order to profit from it. Therefore this study was declaring the importance of Judicial Seizures Violates of meat, fish and their products in Ismailia Governorate markets in order to provide wholesomeness of food items for consumer. There are several weak points in judicial seizure which lead to losing the case due to the loss of one of its element, which leads to the escape of the cheater responsible for fraudulent of meat, Poultry, fish and their products. Therefore, an appropriate measures and decisions must be taken to expediting the process of making judicial decisions that affect the validity of seized items and lead to significant economic damage

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## الملخص العربي

### تقييم الضبطية القضائية التموينية للحوم والأسماك ومنتجاتها بأسواق محافظة الإسماعيلية

ساره احمد محمد نافع- حسني عبداللطيف عبدالرحمن - هبة محمد علي شاهين  
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أجريت هذه الدراسة لتقييم الضبطيات القضائية للجان تفتيش الأغذية في مجال الرقابة على الصحة العامة لمختلف المواد الغذائية خلال عام 2023. تم ضبط مجموعه 69317.7 كجم من اللحوم والدواجن والأسماك ومنتجاتها التي تنتهك قوانين الغذاء بإجمالي 197 تقرير انتهاك. من بينها 2037.5 كجم من المواد الغذائية مع 74 تقرير انتهاك كانت صالحة للاستهلاك الادمي ولكن تم وضعها تحت تصرف النيابة العامة بسبب إما مصدر غير معروف أو عدم وجود دليل علي فترات الصلاحية أو عدم وجود مواصفات للمنتجات. وفي الوقت نفسه ، تم الحكم على 67280.2 كجم من اللحوم والأسماك ومنتجاتها مع 123 تقرير انتهاك بأنها غير صالحة للاستهلاك الادمي بسبب انتهاءتاريخ الصلاحية أو التلف الواضح. فقد تم تمت اعدام المضبوطات غير الصالحة من قبل لجنة يعينها المدعي العام للتخلص منها بالحرار هبالطهيالذي يتبع لإحدى الشركات أو في محرقة نفايات عامة. بينما يُسمح ببيع المواد الغذائية المضبوطة الصالحة للاستهلاك الادمي بأعلى سعر سوقي، ويُحال العائد إلى خزينة المحكمة. وقد اظهرت الدراسة ان هناك العديد من نقاط الضعف في الضبط القضائي، مما يؤدي إلى خسارة القضية لفقدان أحد عناصرها، ومما يؤدي إلى هروب المُحتال المسؤول عن غش اللحوم والدواجن والأسماك ومنتجاتها