

Consumers' consciousness on quality of meat, while purchasing from meat outlets in Kaduwela Municipal Council Area

Conciencia de los consumidores sobre la calidad de la carne cuando compran en los puntos de venta de carne en el área del Consejo Municipal de Kaduwela

DOI: 10.53499/sfjeasv2n2-012

Received in: January 3rd, 2022

Accepted in: March 31th, 2022

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ABSTRACT

Kaduwela Municipal Council area is the largest geological administrative municipal council area which is 87.71 km² in Sri Lanka. According to Food Act No 26 of 1980 Municipal Council is the authority to ensure food safety of the area which is implemented by the Municipal Veterinary Surgeon regarding quality of meat and meat by products. There are 55 leading super markets, 25 meat shops belongs to branded companies and 72 small scale individually owned meat shops. Study was conducted using an interview and questioner with 500 consumers selected randomly while purchasing the meat from all three types of meat shops. Objective of the study to identify the consciousness of the consumer on quality of meat presented to sell in shops before purchase. Consumers were questioned on appearance of meat (colour and texture of meat) and display quality (cleanliness of shop, method of display meat, workers' hygiene, technique of handling of meat and temperature of display meat) to evaluate the awareness of meat quality parameters. Results were analyzed and presented as percentages. It is identified 56% consumers conscious regarding the colour and only 10% of them assed about the texture of meat. Method of presentation of meat for selling directly interfere the quality of the meat. According to the results consumers visually asses the cleanliness of the shop (56%), hygiene of the workers' (25%) and the technique of handling meat at the shop (9%) before purchase. However it was unfortunate to observe the consumers' cognizant of the importance of method of display meat (5%) and temperature of the display fridge (5%) which affect the quality of meat, was significantly low. It is concluded that consumers' knowledge is inadequate concerning factors to be observed before purchase meat. Finally as the outcome of the research to educate the consumer Veterinary Department of Kaduwela Municipal council has displayed a notice to consumers' at each meat outlet regarding to concern about the temperature before purchase as it is indirectly contribute to improve the hygiene of the meat outlet by the owners.

Keywords: consumer, knowledge, meat outlet quality, temperature, meat quality.

RESUMEN

El Consejo Municipal de Kaduwela es el mayor consejo municipal geológico de Sri Lanka, con una superficie de 87,71 km². De acuerdo con la Ley de Alimentos n° 26 de 1980, el Consejo Municipal es la autoridad encargada de garantizar la seguridad alimentaria de la zona, que es aplicada por el veterinario municipal en lo que respecta a la calidad de la carne y los subproductos cárnicos. Hay 55 supermercados principales, 25 tiendas de carne que pertenecen a empresas de marca y 72 tiendas de carne a pequeña escala de propiedad individual. El estudio se llevó a cabo mediante una entrevista y un cuestionario con 500 consumidores seleccionados al azar mientras compraban la carne en los tres tipos de carnicerías. El objetivo del estudio era identificar la conciencia del consumidor sobre la calidad de la carne presentada para la venta en las tiendas antes de la compra. Se interrogó a los consumidores sobre el aspecto de la carne (color y textura de la carne) y la calidad de la exposición (limpieza de la tienda, método de exposición de la carne, higiene de los trabajadores, técnica de manipulación de la carne y temperatura de la carne expuesta) para evaluar el conocimiento de los parámetros de calidad de la carne. Los resultados se analizaron y se presentaron en forma de porcentajes. Se identificó que el 56% de los consumidores eran conscientes del color y sólo el 10% de ellos eran conscientes de la textura de la carne. El método de presentación de la carne para su venta interfiere directamente en la calidad de la misma. Según los resultados, los consumidores evalúan visualmente la limpieza de la tienda (56%), la higiene de los trabajadores (25%) y la técnica de manipulación de la carne en la tienda (9%) antes de la compra. Sin embargo, fue lamentable observar que el conocimiento de los consumidores de la importancia del método de exposición de la carne (5%) y de la temperatura del frigorífico de exposición (5%), que afectan a la calidad de la carne, era significativamente bajo. Se concluye que el conocimiento de los consumidores es inadecuado en lo que respecta a los factores que deben observarse antes de comprar la carne. Por último, como resultado de la investigación para educar a los consumidores, el Departamento de Veterinaria del Consejo Municipal de Kaduwela ha colocado un aviso en cada punto de venta de carne para que los consumidores se preocupen por la temperatura antes de la compra, ya que contribuye indirectamente a mejorar la higiene de los puntos de venta de carne por parte de los propietarios.

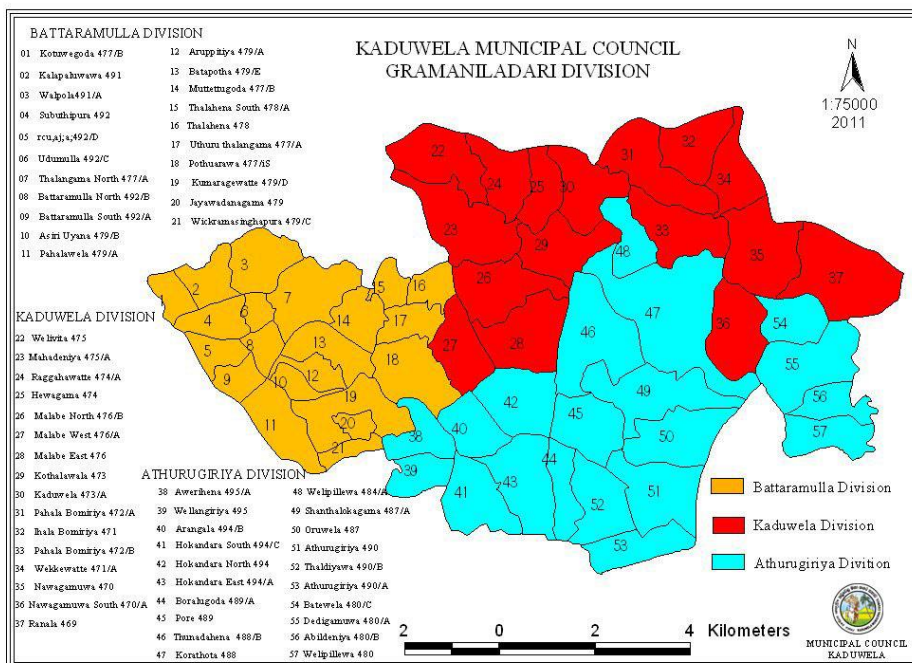
Palabras clave: consumidor, conocimiento, calidad de la salida de la carne, temperatura, calidad de la carne.

1 INTRODUCTION

1.1 KADUWELA MUNICIPAL AREA

Sri Lanka is divided into 25 administrative districts in which Colombo is one of the main Districts in Western Province. Commercial Capital “Colombo” as well as the Administrative Capital “Sri Jayawardhanapura Kotte” is located in this district. There are 4 Municipal Councils located in this district among them Kaduwela Municipal Council is bearing 260,341 human population mainly residential. Majority of focal organizations of the government are located in this area. Therefore Kaduwela is the most human trafficking area in the country. Kaduwela Municipal Council area is the largest geological administrative municipal council area which is 87.71 km² in Sri Lanka.

Fig 1: Kaduwela Municipal Council Area map



1.2 CONSUMERS OF SRI LANKA

22 million (2020) Population of Sri Lanka includes different ethnic groups. They are Sinhalese, Tamil, Muslims, Burger, Malay, and other. These people belongs to different religions mainly Buddhism (70%), Hindunism (13%), Christianity (7%), Islam (9%) and other. In Kaduwela Municipal Council Area also the 260,341 (2016) population consists of 91% Buddhists, 5.2% Catholic, 1.5% Hindus and 1.9% Islams. Food habits of the people are mainly related to their religions and believe in Sri Lanka. Buddhists a Hindus don't eat beef while Muslims don't eat pork. Chicken meat is accepted by almost all ethnic groups. In Sri Lanka main food is rice and meat, fish, egg, dried fish and meat by products are taken with rice as curries. There is very less live market in Sri Lanka. Meat is present in meat shops as fresh cuts with or without chilling and as frozen meat in packed form. Consumers love value added meat products also. Per capita availability of different types of meat per year are beef 1.37kg (2019), mutton 0.09Kg (2020), chicken 9.8kg (2020) and pork 0.41kg (2020).

1.3 LAWS RELATED TO FOOD

Food Act of No. 26 of 1980 is the main legislation governing Food Control activities in Sri Lanka. Mayor is the main responsible person for food quality in the municipal council area. Officers of health authorities inspect the shops selling food,

storage places, and processing centers regarding the food quality. Meat shops are inspected by the Municipal Veterinary Surgeon in order to provide quality meat to consumers. All meat shops should obtain a trade license from the municipal council annually. If the meat shop or meat is selling under improper quality municipal council authorities have power to fine the owner, or cease the license. Also municipal council has a bylaw for “meat sale” which indicates all condition regarding meat transport, storage, sale and state of the meat selling place in order to sell quality meat to consumers.

1.4 MEAT QUALITY

Killing of the animal, preparation of meat, storage, transport, and display to sell should be done with high precautions to maximize meat quality. Meat is from a dead animal carcass which starts to spoil if the temperature is not altered to minimize pathogen growth. In low temperature the growth of pathogens is less or discontinues. Quality meat should be free from any harmful pathogen. Meat subject to sale should be displayed at 0-4⁰C. Some meat products can be displayed at -20⁰C according to the instructions of the producer. Meat should be kept at -20⁰C while storage. Meat can be displayed for a short period without chilling but should be sprayed or washed with acid such as; 2-5% of lactic acid, acetic acid, and citric acid.

Meat deterioration can be determined by physical parameters such as Colour, texture, smell, consistency, and taste of the meat at consumer level. The colour should be unique to type of meat and texture should be in good tension without spoiled appearance. Other than meat quality parameters method of presentation of meat for selling directly interfere the quality of the meat. Therefore when evaluating the awareness of meat display quality; cleanliness of shop, method of display meat, workers’ hygiene, technique of handling of meat and temperature of display meat also have important role. Workers should take all possible precautions to ensure meat quality at the meat shop level. Food grade chemicals should be used to clean the shop, refrigerators, and equipment in daily basis.

Picture 1: Medium scale meat shop



1.5 MEAT SELLING IN KADUWELA

There 152 meat selling centers in Kaduwela Municipal Council area. They can be divided in to three as outlets in supermarkets (55 Nos), medium sales outlets “meat shops” (25 Nos) and small scale outlets (72 Nos). Supermarkets and meat shops belong to leading companies having large scale market network in the island.

Picture 1, 2: Small scale meat shop



Small scale outlets belong to one owner selling small amount of meat mainly daily basis. Main type of meat sell is chicken while there is very low sale of beef, mutton and pork. Supermarkets and meat shops sell multiple types of meat. Small scale shops sell mainly chicken. There are 4 small scale shops selling beef and 5 small scale shops selling pork in the area.

Shops are function from 9.00 a.m. to 10.00 p.m. Consumers visit the shop and buy meat which is satisfied to them. Because of the Buddhist majority in the country there are no live markets. Though there is daily supply of fresh meat or frozen meat to meat outlets knowledge of consumers on meat quality is very low.

Picture 3: small scale meat shop



1.6 MEAT SHOP INSPECTION

Meat shops and meat are inspected by health authorities of the area as well as the municipal veterinary surgeon frequently. Meat is mainly inspect while displaying and at storage at the shop itself. There are no slaughter houses within municipal area. Therefore meat is been transported from different places daily.

Picture 4: Hygienically dressed worker at the shop



Physical condition of the meat, hygiene of the shop, and workers hygiene is inspected in order to maintain quality of meat selling at the outlet. Any alteration of the standards is noticed and advice for correction and fine is endorsed for the shop owner. Annual issue of the license by the Municipal council is done if the shop is in the standard level.

2 OBJECTIVE

It is observed that knowledge of consumers is very low on selecting proper quality meat while purchasing. As a result it is indirectly affect the concern of the shop owner to seriously consider regarding quality of meat display, storage and environment of the meat shop. Therefore the objective of the study is to identify the consciousness of the consumer on quality of meat presented to sell in shops before purchase.

3 METHODOLOGY

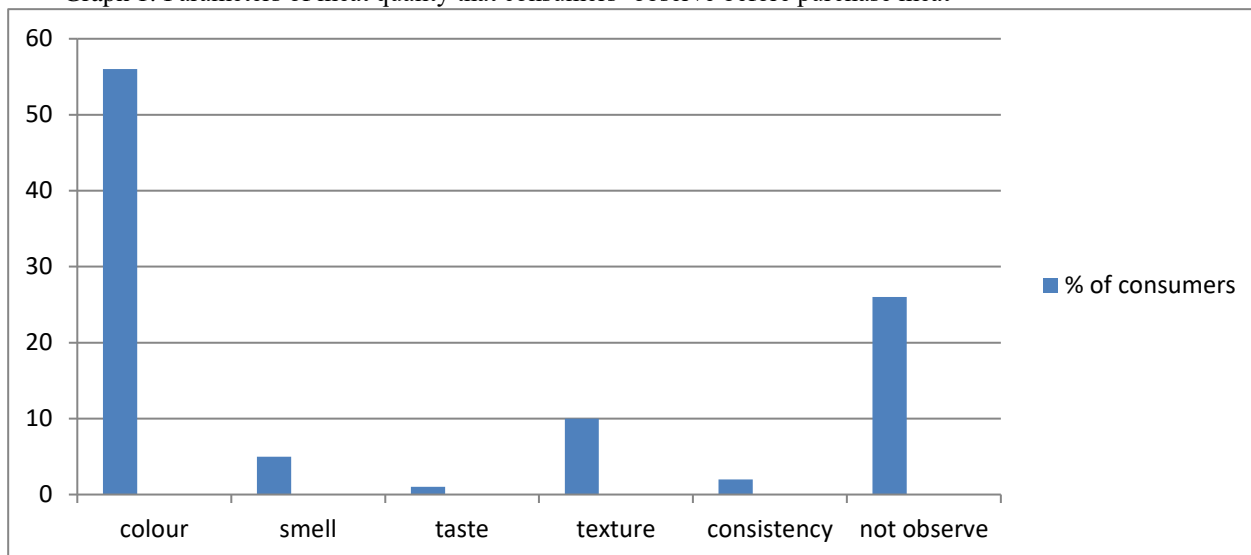
A questioner was developed by the Veterinary Department of the Municipal council consist of questions regarding to gather information on the knowledge, perception of the consumer on meat quality about the meat available at the meat shops. 500 consumers were selected randomly while purchasing the meat from all three types of meat shops and questioned on appearance of meat (colour, texture, smell, consistency, taste)

and display quality (cleanliness of shop, method of display meat, workers’ hygiene, technique of handling of meat and temperature of display meat) to evaluate the awareness of meat quality parameters. After collection the answer sheets answers were analyzed and finalized for the percentages of the findings.

4 RESULTS & DISCUSSION

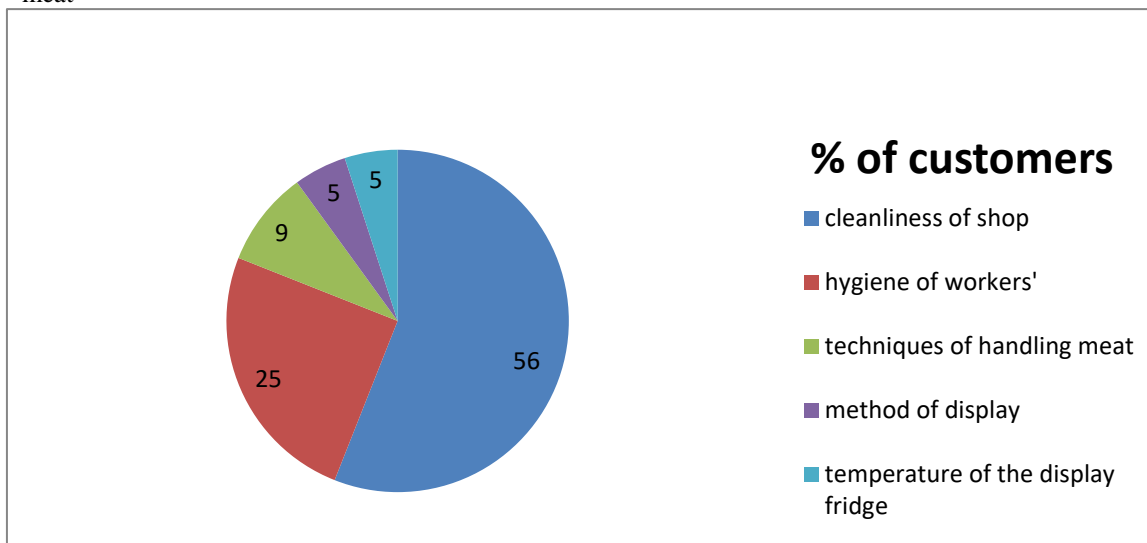
Colour, texture, smell, consistency, and taste are main parameters to identify the quality of meat to detected whether it is spoiled or not. It is identified 56% consumers conscious regarding the colour and only 10% of them assed about the texture of meat. It is unfortunate to observe 26% of customers do not consider about any parameter while purchasing meat.

Graph 1: Parameters of meat quality that consumers’ observe before purchase meat



Method of presentation of meat for selling directly interfere the quality of the meat. According to the results consumers visually asses the cleanliness of the shop (56%), hygiene of the workers’ (25%) and the technique of handling meat at the shop (9%) before purchase. However it was unfortunate to observe the consumers’ cognizant of the importance of method of display meat (5%) and temperature of the display fridge (5%) which directly affect the quality of meat, was significantly low.

Graph 2: Parameters for method of presentation of meat for selling that consumers' observe before purchase meat



As one of the main factors depends on meat quality is the temperature at which the meat is sold or displayed. Consumers were not aware or do not take serious about the temperature of display of meat. If the consumers are reacting to refuse the meat which is sold or displayed at improper temperature the shop owners are indirectly influenced to maintain the temperature at display and exhibit the temperature of the display fridge for the convenience of the customers.

5 CONCLUSION

It was concluded that consumers' knowledge is inadequate concerning factors to be observed before purchase meat. Finally as the outcome of the research to educate the consumer Veterinary Department of Kaduwela Municipal council has displayed a notice to consumers' which was written in two local languages and English; at each meat outlet regarding to concern about the temperature before purchase as it is indirectly contribute to improve the hygiene of the meat outlet by the owners. Also it was convinced to meat shop owners to display the temperature of the chiller cabinet and freezers which were used to display meat and meat products

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