



International Journal of Animal Research (ISSN:2575-7822)



Consumers Understanding and Utilization of labels used in Dairy Products

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ABSTRACT

This study was conducted to determine the consumers understanding regarding the food labels in the dairy products and to find out its utility in consumers daily life. Primary data was collected by interviewing 200 consumers (NDRI and GADVASU milk parlor), who were the regular consumers of the milk products in the two distinct areas of northern India to find out the differences in their purchasing pattern. The result revealed that majority of the consumers reads the food labels on initial purchase of their food items. Consumers were well comprehended with the food labels used in the food items. Different kinds of information like Expiration Date (99.50%), Ingredients (78.40%), Health claims (66.80%) and Nutritional information (65.30%) were mostly used by the consumers, and they look for it in the dairy food products labels. Expiry Date was most commonly used by consumers as an indication of freshness, shelf life and food safety across a range of foods. The findings proposed the improvement of consumers knowledge regarding food labels used in the dairy products.

Keywords: Understanding, utility, food labels, ingredients, expiration date

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How to cite this article:

Priyajoy Kar et al., Consumers Understanding and Utilization of labels used in Dairy Products. International Journal of Animal Research, 2017; 1:11.

eSciencePublisher®

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Website: <http://escipub.com/>

Introduction:

Demand for food items are increasing day by day as the global population has already exceeded 7 billion in the current scenario. Food industries in the developed countries are driving the consumer demands which is generally concerned with more nutritious and sustainable foods (Joseph and Morrison, 2006). Food labels serves as an important connecting link of communication between the manufacturer and packer of food on the one hand and distributor, seller and user or consumer on the other hand. As per the Food Safety and Standards (Packaging and Labeling) Regulations 2001, different guidelines about the food labels, like the name of food, list of ingredients, declaration regarding food additives, net quantity date of manufacturing or packing etc. should be included in the labels for adequate consumer benefit.

Consumers placed greater importance on information about the origin of a product, than on private brands (Roosen, Lusk and Fox, 2003). However, Expiry date was most commonly used information by the consumers (Tessier *et al.*, 2000). Frequency and time of use of food label information generally varies among the consumers. However more than half of consumers read the labels information on initial purchase (Mintel, 2006). Utilization of food label information varies with the consumers age, his residence, his purchasing pattern of food items. Consumers residing in non-metro areas were more likely to use nutritional information concerning ingredients, sodium, vitamins, minerals and fiber content on food packages than others in the sub-urban and urban areas. Presentation of different specific requirements of the consumers in the food labels will increase its

utilization for the consumers. Taking these facts into consideration, this study was conducted to find out the utilization of food labels and their understanding among the consumers.

Materials and Methods:

The ex-post facto research design was used in conducting the present investigation. The present study was carried out in ICAR-NDRI, Karnal and GADVASU, Ludhiana milk parlor of Northern India as the people visiting these institutes were regular consumers of dairy products. The study population comprised 100 consumers from each milk parlor of the institute who have visited regularly for purchase of milk and milk products. Thus a total of 200 respondents were selected for the investigation. A structured and pre-tested interview schedule was used to collect the information from respondents on frequency and utilization of food labels. Data collected were statistically analyzed with the help of frequency, percentage and mean. The data were separately interpreted to find out the frequency of reading labels among the consumers and their utilization pattern.

Results and Discussion:

Socio-demographic profile of the Respondents:

The majority of the respondents belongs to Young age group (up to 35 years) with maximum are graduate (43.63%) in accordance with their educational qualification. Majority of the respondents are male (67.47%) with urban background (55.84%). As most of the respondents are from urban area, maximum are nuclear (52.27%) in their family type and medium family size (3-6 members).

Table-1: Socio-demographic profile of the respondents

Particulars	Category	Respondents Category			
		Young (n=156)	Adult (n=36)	Old (n=8)	Pooled (n=200)
Gender	Male	63.48	63.89	75.00	67.47

	Female	36.52	36.11	25.00	32.53
Family Size	Small (<3)	4.68	1.32	4.68	3.00
	Medium (3-6)	78.16	93.84	94.44	86.00
	Large (>6)	17.16	4.84	0.88	11.00
Family Type	Nuclear	50.00	45.46	75.00	52.27
	Joint	50.00	54.54	25.00	47.73
Family Background	Rural	44.87	43.46	100.00	44.17
	Urban	55.13	56.54	0.00	55.84
Education	Illiterate	1.28	4.54	0.00	1.94
	Primary	7.07	0.00	0.00	0.00
	Middle	7.05	0.00	0.00	2.36
	Secondary	20.51	31.52	25.00	25.68
	Graduate	40.38	40.52	50.00	43.63
	Post graduate	29.48	23.42	25.00	25.97
	Others	1.28	0.00	0.00	0.43

Frequency and time of use of Food Label Information

Results revealed that [Table – 2] most of the consumers (46.50%) read food labels when they purchase food products items initially and 31.50 percent reported that they read food label on the products when buying some particular products say use for infants' mother or use for diabetic persons. About one-third (37.00%) percent of the respondents occasionally refer the food label followed by 23.00 percent often. It was also observed that [Table – 2] that 19.00 percent of the respondents never be referred the food label for any information. The present findings were in line with MORI, (2001) reported that consumers suppose that they know the products that have reached minimum standards. These findings are in line with Mintel

(2006) which suggest that half of the consumers in United Kingdom read the labels on initial purchase.

More than two-third((77.50%)percent of the respondents [Table – 2] used food label information for purchasing of particular products, whereas 22.50 percent of the respondents not use the food label information of purchasing purpose. It was quite to observed that 54.50 percent of the respondents somehow understand the information on the food label and 7.00 percent of the respondents do not understand the information on the food label particularly information such as Trans-fat and saturated fat percent. This result was different from Mahgoub *et al.*, (2007) who found that majority (59.0%) of consumers in Lesotho understand food label very well.

Table- 2: When and how often respondent refer to food label information

Sl. No.	Statements	Frequency	Percentage
1	When consumers read label		
	Initial purchase	93	46.50
	When comparing products	44	22.00
	When buying some particular product	63	31.50

Total		200	100.00
2	How often they refer to label		
	Rarely	20	10.00
	Occasionally	74	37.00
	Often	47	23.50
	Always	21	10.50
	Never	38	19.00
Total		200	100.00
3	Do you use food label?		
	Yes	155	77.50
	No	45	22.50
Total		200	100.00
4	Do you understand what you read?		
	Very well	77	38.50
	Somehow	109	54.50
	Not understand	14	7.00
Total		200	100.00

The findings revealed that [Table – 3] almost cent percent (99.50%) respondents were looking for food products expiry data or use before followed by ingredient 78.40 percent. The findings were justified because in the study most of the respondents were vegetarian for they were looking for ingredients in the food items, whether food item based purely of plant based. same Majority of the respondents[Table – 3] were looking for other information such health claim (66.80%) and nutritional information (65.30%), instruction for use (49.70%), country of food origin (47.70%), producers or manufacturers (30.70%) and net weight (24.10%) were least considered. It could be concluded from the findings that consumer were more interested in expiry data or use before label than any other information on a labeled package. This is mostly used to determine the safety, freshness, wholesomeness and quality of food products. Expiry data or use before label comes in the

form of manufacturing date which signifies the product was made, use by which specifies beyond which food should not be consumed and best before/expiry date gives an indication of quality life span of the product. This result is similar to the finding of Tessier *et al.*, (2000) who reported that date labels were the most commonly sought information on food labels on a wide range of food products amongst Scottish consumers. MORI (2010) also revealed that once consumers are at home the only information important to them is the date label. Sabbe *et al.*, (2009) found that expiry date is commonly used by consumers as an indication of freshness, shelf life and food safety across a range of foods. Rodolfo (1996) also indicated that consumers residing in non-metro areas were more likely to use nutritional information concerning ingredients, sodium, vitamins/ minerals, and fiber content on food packages than others in the sub-urban and urban areas

Table- 3: The kind of information consumers look out for

Sl. No.	Food Label Information	Multiple Response	
		Response ('Yes')	Response in('No')

		Frequency	Percentage	Frequency	Percentage
1	Nutritional information	130	65.30	69	34.70
2	Health Claims	133	66.80	66	33.20
3	Ingredient	156	78.40	43	21.60
4	Expiry Date/ Use Before	198	99.50	1	0.40
5	Country of Origin	95	47.70	104	52.30
6	Net Weight	48	24.10	151	75.90
7	Producers /manufacturers	61	30.70	138	69.30
8	Instruction for use	99	49.70	100	50.30

Conclusions: The study concludes that consumers generally concern food labels initially for the purchase of the food items. Though it has been observed that consumers concern is occasional for the food labels. Consumers understanding regarding the labels used in the dairy products were generally moderate. Instructions for Use in the food products and their net weight were not given much importance as compared to other information criteria's. While the consumers should be made aware about the different labels used in the food products, premier food adulteration agencies like FSSAI, AGMARK, BIS should conduct different awareness programs about the utilization of the food labels among the consumers for better selection of nutritious foods. The Dairy Development plans of different states should encourage and facilitate information among the consumers about the different labels used in the dairy products.

Acknowledgements:

The author acknowledges the ICAR-National Dairy Research Institute, Karnal for providing institute fellowship as financial support to carry out the research work.

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