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To study the consumer acceptability of alcoholic whey beverage

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Abstract

In India, the major source of whey is from production of *Channa*, *paneer* and *Chakka*. During the process about 10-20 percent portion of milk is recovered as the desired product and remaining 80-90 per cent liquid portion is the whey. We standardized the technology of alcoholic whey beverage and sensorily most acceptable treatment (*Channa* whey+ mixed culture) sample served to a large group (70) of consumers for their appraisal. The consumer asked to indicate their overall appraisal for the product in prescribed proforma supplied along with the product i.e. alcoholic whey beverage. In this context, around 94 per cent of the consumers reported, good to excellent remark for the alcoholic whey beverage. In conclusion, the consumers appreciated the quality of beverage with marvelous remark (very good to excellent). The degree of acceptance varied due to age, education, social status and gender.

Keywords: Milk, channa, whey, alcohol, beverage, consumer etc.

Introduction

Whey is the liquid portion of milk that remains after separation of curd/co-agulated products, resulted from the acid or proteolytic enzyme mediated co-agulation of milk. Whey is the major by-product of milk industry in the process of milk manufacturing products like *Channa*, *paneer*, *Chakka*, casein, cheese etc. During the process about 10-20 percent portion of milk is recovered as the desired product and remaining 80-90 per cent liquid portion is the whey.

Whey is the most important by-product of milk industry in the process of milk manufacturing products like *Channa*, *paneer*, *Chakka*, casein, cheese etc. During the process about 10-20 percent portion of milk is recovered as the desired product and remaining 80-90 per cent liquid portion is the whey. It has been considered as an important food medium for thousands year. It is rich source of carbohydrates (Lactose 4-5%), minerals 0.60% (Ca, P, Na, Mg etc.), and whey proteins α -lactalbumin (22% of whey protein), β -lactoglobulin (59% of whey protein), serum albumin-6% of whey protein) and water soluble vitamin i.e. B complex (Ghosh and Singh, 1997 and Parekh, 1997) ^[2, 5]. In India, the major source of whey is from production of *Channa*, *paneer* and *Chakka*. In that *Channa* and *paneer* whey contribute around 80 per cent of total whey (Gupta, 2008) ^[3], and majority of it is disposed off as a waste. To overcome with this disposal problem and to harness the benefits of nutritious solids of the whey, we standardized the technology of alcoholic whey beverage and assess the accessibility of consumers.

Methodology

Sensory evaluation

A panel of six semi-trained judges carried out the sensory evaluation of alcoholic whey beverage. '9' point Hedonic scale described as per IS: 6273 (Part-II) (1971) ^[4] was used to assess the product.

Consumer study

Investigation carried out on, whey utilization in preparation of alcoholic beverage, yielded valuable information and encouraging results, which indicate the developed product, was highly acceptable. However, it would be a commercial significance if the consumers also have same feeling as was judged by the laboratory panel. Hence, an attempt was made to assess acceptability of alcoholic whey beverage by offering to the large group (70) belonging to the different categories and seeking their honest opinion.

In this attempt, the sample of the selected treatment (*Channa* whey: mixed culture) was prepared as per procedure (Choudhari, D.M. 2011) ^[1] and offered to the consumer.

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About 50 ml volume of alcoholic whey beverage served and asked to indicate their liking about the product in Proforma provided as underneath and the class of age, education, social status and gender was analyzed statistically by adopting X² test.

Proforma for Consumer Acceptance

1. Name of consumer	:
2. Address	:
3. Age	:
4. Education	:
5. Social status	:
i. Farmer	:
ii. Student	:
iii. Employee	:
6. Did you know about alcoholic whey beverage	: Yes/No
7. Did you like alcoholic whey beverage	: Yes/No
a. If yes, degree of likings	i. Excellent
b. If no: Give remark	ii. Very good
	iii. Good
	iv. Fair
8. Would you like to drink AWB in place of grape white wine, if it is available at comparable cost?	: Yes/No

Result and Discussion

Profile of the consumers

The effort made to know the profile of the consumers in terms of their age, social status, education and gender (Table 1). Age of an individual is a factor that an influence is degree of

likeingness of any product, here in this case the alcoholic whey beverage. It was evident that, the 57 per cent of consumers were of young age (18-35 years), followed by 23 per cent middle age (35-50 years) and 20 per cent old age (above 50 years). It was learned from the data; about 14 per cent consumers were educated up to HSC and remaining (86%) of individual were graduate and post graduate. Considering the social status 14, 57 and 29 per cent consumers were farmer, student and employee, respectively. As regards to the gender maximum consumers covered were male (86%) and 14 per cent were female.

Consumers' acceptance of alcoholic whey beverage

The frequency distribution of the consumer's acceptability in totality and category wise given in the Table 1. The effect within the class of age, education, social status and gender was analyzed statistically by adopting X² test.

Further, 20 per cent of the consumers reported that the quality of alcoholic whey beverage served was "excellent" while 64 per cent of them expressed it as "very good" remark. Moreover, 10 and 6 per cent reported as "good and fair" status, respectively.

It was evident that the perceptiveness of the consumers liking influenced statistically significant due to age, education and gender. But, social status did not play any significant role in the liking of alcoholic whey beverage. In short, about 84 per cent of the consumers recorded the product very good to excellent quality. Hence, there is scope to say that the alcoholic whey beverage can be popularized extensively/large scale.

Table 1: Consumer appraisal of alcoholic whey beverage

Particulars	Group	Degree of liking										Statistics (At 5%)
		Excellent		Very good		Good		Fair		Frequency	%	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%			
Overall acceptability		70	100	14	20	45	64.3	7	10	4	5.7	
Age (year)	18-35	40	57.1	11	27.5	22	55	3	7.5	4	10	F cal: 13.004 F tab:12.59 Result: Sig
	35-50	16	22.9	0	-	12	75	4	25	-	-	
	50 and above	14	20	3	21.4	11	78.6	-	-	-	-	
Education	Up to HSC	10	14.3	4	40	6	60	-	-	-	-	F cal: 18.49 F tab:7.81 Result: Sig.
	Graduate	60	85.7	14	23.3	34	56.7	8	13.3	4	6.7	
Social status	Farmer	10	14.3	4	40	6	60	-	-	-	-	F cal: 10.016 F tab:12.59 Result: NS
	Student	40	57.1	11	27.5	22	65	3	7.5	4	10	
	Employee	20	28.6	3	15	12	60	5	25	-	-	
Gender	Male	60	85.7	14	23.3	40	66.7	6	10	-	-	F cal: 42.26 Ftab:7.81 Result: Sig.
	Female	10	14.3	-	-	-	-	6	60	4	40	

Sig.: Significant, NS: Non significant

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