

## Consumption practices of green leafy vegetables among selected households

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### ABSTRACT

A total number of 100 households were surveyed by personal interview method to elicit the information regarding the consumption practices of green leafy vegetables in Parbhani (M.S.) India. The socio-economic background, frequency of consumption of green leafy vegetables and storage practices of selected green leafy vegetables were studied. The results revealed that the majority of the surveyed housewives were of middle aged and were from nuclear families. The literacy level of housewives as well as heads of families was good. Most of them were Primary School educated and were from middle income group. This may be due to the reasons that the surveyed households were urban and rural residents. The occasional consumption of Tandulga (*Amaranthus polygramous*), Shepu (*Peucedanum graveolens*), Chickpea gram leaves (*Cicer arietinum*), Rajkeera leaves (*Amaranthus paniculatus*) and Patra (*Sonchus arvensis*) was found to be more than 30 per cent. It was also noticed that very low per cent of subjects used to consume green leafy vegetables leaves in the powder form where as the majority of them consumed green leafy vegetables in cooked form. On the other hand, majority of the families were not having the awareness regarding nutrient content and medicinal value of green leafy vegetables.

**KEY WORDS :** Socio-economic status, Consumption, Storage practices, Green leafy vegetables

**How to cite this paper:** Lahade, K.N., Khan, T.N. and Mamilla, V.V. (2011). Consumption practices of green leafy vegetables among selected households. *Asian J. Home Sci.*, 6 (2) : 143-145.

**Article chronicle:** Received: 13.05.2011; Revised: 05.09.2011; Accepted: 15.10.2011.

In India, leafy vegetables from many plants have been used in the diet from ancient times. Leafy vegetables are inexpensive and protective foods, which have acclaimed as a basic component of balanced diet. Leafy vegetables are prerequisite of poor mans luxury because of their richness in protective nutrients wide range of choice and low cost.

Green leafy vegetables are available in plenty in Indian situation and also provide variety to the diet. They make the food attractive by their colour, texture and flavour. Indian population is mostly vegetarian but the intake of vegetables has been too low in daily diet because people do not eat vegetables or eat less in quantity due to ignorance of the importance of vegetables in the diet. Further, vegetables are perishable and storage facilities are limited, therefore the vegetables are unavailable in a particular place or season which results less consumption of vegetables.

Green leafy vegetables supply many nutrients and are rich sources of carotene, iron, calcium, ascorbic acid, riboflavin, folic acid and appreciable amounts of other minerals (Devadas and Saroja, 1980). Indian Council of Medical Research recommendation for leafy vegetables for adult is 100 g but the consumption is found to be only 10-20 g, which is only 20 per cent of the requirement

(Gopalan *et al.*, 1989). Low consumption of green leafy vegetables leads to lower intake of vitamins and minerals, as a result majority of the population suffer from iron and vitamins A deficiency.

The leafy vegetables are highly perishable and heavy losses occur due to non-availability of sufficient storage, transport and proper processing facilities at the production point (Pande *et al.*, 2000). Preservation of the vegetables can prevent huge wastage as well as make the available in the lean season. Dehydration is one of the best methods of preservation of leafy vegetables because it reduces the cost of storage and transportation by reducing both the weight and volume of the final product.

Many types of green leafy vegetables are consumed all over the country. However, the green leafy vegetables are seasonal and available only in particular season. Information pertaining to the storage practices of green leafy vegetables are meagre hence an attempt was made to find out the consumption and storage practices of green leafy vegetables among the selected households.

### RESEARCH METHODS

A total number of 100 households covering both rural and urban areas were randomly selected in Parbhani

district of Maharashtra. The housewives of selected households were personally interviewed to elicit the information regarding consumption practices of green leafy vegetables.

A questionnaire was framed covering socio-economic status and different aspects of consumption and storage of leafy vegetables. The responses about pattern, frequency and form of consumption, awareness of nutrient content and role in diseases with regard to green leafy vegetables were noted. In addition, the questions on socio-economic background, educational status, food habits of selected subjects were also included in the questionnaire schedule.

## RESEARCH FINDINGS AND DISCUSSION

The general information and data regarding the socioeconomic status of the selected households are given in Table 1. The selected housewives between the age group of 31 to 40 years were 57 per cent followed by 41 to 50 years group (21 %). In the age group of 20 to 30 year 16 per cent and 51 to 60 years age only 6 per cent housewives were there. The trend of nuclear families was noticed in maximum (48%) households. There were

44 per cent joint and only 8 per cent extended families among surveyed households. Markedly high per cent (54%) of housewives were found to be literate and 46 per cent of the housewives were illiterate. The educational status of literate housewives varied from primary school to college education. Primary School, Secondary School, High School and college educated were 30 per cent, 3 per cent, 12 per cent and 9 per cent, respectively. Majority of the households (47%) were having monthly income between Rs. 5000 to 10000, 28 per cent had income between Rs. 10000 to 15000, per month and 14 per cent families were having monthly income less than Rs. 5000. Only 11 per cent families earned more than Rs. 15,000 rupees per month. Majority of the households (70%) were non-vegetarian and 30 per cent families found to be vegetarian.

Above results indicated that majority of the surveyed housewives were middle aged and were from nuclear families. The literacy level of housewives as well as heads of families was good. Most of them were primary school educated and were from middle income group. This may be due to the reason that the surveyed households were urban and rural residents.

Information regarding consumption of green leafy vegetables by surveyed households is presented in Table 2. Methi, palak, shepu, chukha, coriander leaves, curry leaves, onion leaves, tandulaga, pathra, chickpea leaves and rajkeera leaves were the different types of green leafy vegetables commonly consumed in most of the surveyed families. Coriander leaves (67 %) and curry leaves (58 %) were the mostly and daily consumed green leafy vegetables followed by methi (55%) and palak (35%). The lowest consumption of chukha (6%) was recorded. The weekly consumption of methi, palak, shepu, chukha, tandulga, pathra, chickpea leaves was 33, 55, 61, 52, 9, 5 and 13 per cent, respectively. More than 30 per cent of the people were consuming occasionally tandulga, shepu, chickpea leaves, rajkeera leaves and pathra.

The data on information regarding consumption and storage practices of selected green leafy vegetables by selected households are presented in Table 3.

It is clear from the results that none of the surveyed families was consuming the rajkeera leaves, tandulga and chickpea leaves daily, while 15 and 55 per cent of subjects consumed shepu and methi daily. Whereas above 40 per cent occasional consumption of all green leafy vegetables except methi was noticed among the farmer families. It was also noticed that very low per cent of subjects consumed green leafy vegetables leaves in the powder form where as majority of them consumed green leafy vegetables in cooked form. On the other hand, majority

**Table 1: Socio-economic background of selected subjects (n=100)**

Sr. No.	Particulars	Number	Percentage
1.	Age group (years)		
	20-30	16	16.00
	31-40	57	57.00
	41-50	21	21.00
	51-60	06	06.00
2.	Type of family		
	Nuclear	48	48.00
	Joint	44	44.00
	Extended	08	08.00
3.	Literacy level (Female)		
	Illiterate	46	46.00
	Literate	54	54.00
	Primary school	30	30.00
	Secondary school	03	03.00
	High school	12	12.00
	College	09	09.00
4.	Monthly income (Rs)		
	Rs. < 5,000	14	14.00
	Rs. 5,000 - 10,000	47	47.00
	Rs. 10,000 - 15,000	28	28.00
	Rs. 15,000 - <	11	11.00
5.	Food habit		
	Vegetarian	30	30.00
	Non-vegetarian	70	70.00

**Table 2: Consumption of green leafy vegetables by selected households (n=100)**

Sr. No.	Green leafy vegetables	Frequency of consumption					
		Daily		Weekly		Occasionally	
		Number	Percentage	Number	Percentage	Number	Percentage
1.	Methi	55	55.00	33	33.00	5	5.00
2.	Palak	35	35.00	55	55.00	2	2.00
3.	Shepu	15	15.00	61	66.00	45	45.00
4.	Chukha	6	6.00	52	52.00	0	0.00
5.	Coriander leaves	67	67.00	0	0.00	0	0.00
6.	Curry leaves	58	55.00	0	0.00	0	0.00
7.	Onion leaves	4	4.00	0	0.00	5	5.00
8.	Tandulga	0	0.00	9	9.00	47	47.00
9.	Pathra	0	0.00	5	5.00	30	30.00
10.	Chickpea leaves	0	0.00	13	13.00	45	45.00
11.	Rajgira leaves	0	0.00	0	0.00	40	40.00

**Table 3: Consumption and storage practices of selected green leafy vegetables by selected households (n=100)**

Sr. No.	Particulars	Rajkeera leaves	Shepu	Tandulga	Methi	Chickpea leaves
		Percentage	Percentage	Percentage	Percentage	Percentage
1.	Frequency of consumption					
	Daily	0.00	15.00	0.00	55.00	0.00
	Frequently	00.00	61.00	9.00	33.00	13.00
	Occasionally	40.00	45.00	47.00	5.00	45.00
2.	Form of consumption					
	Powdered	01.00	02.00	0.00	05.00	10.00
	Cooked	32.00	40.00	25.00	45.00	28.00
	Raw	07.00	0.00	0.00	25.00	05.00
	Any other	0.00	0.00	0.00	0.00	0.00
5.	Awareness about nutrients					
	Yes	34.00	41.00	34.00	44.00	38.00
	No	66.00	59.00	66.00	56.00	62.00
6.	Awareness about medicinal value					
	Yes	34.00	32.00	20.00	42.00	41.00
	No	66.00	68.00	80.00	58.00	59.00

of the families were not having the awareness regarding nutrient content and medicinal value of green leafy vegetables.

On the whole it can be concluded that the surveyed households were not consuming the leafy vegetables in dried form and they were unaware of about its nutritional importance. Thus, drying of leafy vegetables and making them use for future open up new vistas in the field of food technology, since they are rich in antioxidants and can be added as a natural antioxidant to develop new commercial products.

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