

Consumption pattern and constraints of maize, bajra and groundnut crops among rural and urban women

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Abstract

Kharif crops are grown with the onset of monsoon in different parts of the country and these are harvested in September-October. Important crops grown during this season are paddy, maize, *jowar*, *bajra*, tur (*arhar*), *moong*, *urad*, cotton, jute, groundnut and soybean. Crops like *bajra* (Pearl millet), maize and groundnut are considered as low cost crops and can be grown in varied climate of the country.

Key words : Consumption pattern, constraints.

Introduction

Yellow corn is high in magnesium, which is a very wonderful bowel regulator. It is a bone and muscle builder and an excellent food for brain and nervous system as it is a rich source of phosphorus. Peanuts are rich in nutrients, providing over 30 essential nutrients and phytonutrients. Peanuts are a good source of niacin, folate, fiber, magnesium, vitamin E, manganese and phosphorus. The nutritive value of *bajra* is higher than sorghum. *Bajra* grain contains

about 12.4 per cent moisture, 11.6 per cent protein, 5 per cent fat, 67 per cent carbohydrates, about 2.7 per cent minerals.

Methodology

The study was conducted in Kanpur district. Two blocks were randomly selected namely Kalyanpur and Sarsaul. Five villages were randomly selected from each block. Total sample size is 200 women (rural and urban) (1:1). Dependent and independent variables were used such as education, caste, consumption pattern, dietary habit etc. The statistical tools were used such as S.D., Cr. etc.

Table 1 Distribution of women according to occupation

Occupation	Rural (N ₁ =100)	Urban(N ₂ =100)	Total
Farming	55 (27.5)	-	55 (27.5)
Business	-	9 (4.5)	9 (4.5)
Caste occupation	10 (5.0)	-	10 (5.0)
Service	5 (2.5)	23 (11.5)	28 (4.5)
House wife	30 (15.0)	68 (34.0)	98 (49.0)
Total	100 (50.0)	100 (50.0)	200 (100.0)

χ^2

68.685***

P < 0.001

(Figures in parentheses indicate percentage of respective values)

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Lower education and lower occupation independently contribute to determining differences in dietary habits and that the effect of the two indicators is cumulative.

All results were adjusted for total energy, intake and therefore the differences in food and nutrient intake among social classes were independent of the actual amount of food consumed.

Table 2. Consumption pattern of women

Consumption	Rural			Urban		
	<i>Bajra</i>	Maize	Groundnut	<i>Bajra</i>	Maize	Groundnut
Daily	-	-	-	-	5 (2.5)	9 (4.5)
Weekly	-	3 (1.5)	12 (6.0)	2 (1.0)	8 (4.0)	22 (11.0)
Monthly	-	6 (3.0)	19 (9.5)	6 (3.0)	19 (9.5)	30 (15.0)
Seasonal	90 (45.0)	82 (34.0)	68 (34.0)	62 (31.0)	80 (40.0)	60 (30.0)

(Figures in parentheses indicate percentage of respective values)

Consumption pattern of women respondents, 45.0 per cent of rural and 31.0 per cent of urban women have taken *bajra* seasonal, whereas 41.0 per cent of rural and 40.0 per cent of urban women have taken maize

seasonally. 9.5 per cent of rural and 15.0 per cent of urban women respondents have taken groundnut monthly while 1.5 per cent rural and 4.0 per cent of urban women were taking maize weekly.

Table 3. Food frequency of women on selected crops

Food frequency	Rural					Urban				
	Wheat	Rice	Maize	<i>Bajra</i>	Groundnut	Wheat	Rice	Maize	<i>Bajra</i>	Groundnut
Once a day	-	72 (36.0)	-	-	-	-	75 (37.5)	5 (2.5)	-	-
Twice in a day	8 (4.0)	-	-	-	-	12 (6.0)	21 (10.5)	-	-	-
Thrice in a day	90 (45.0)	-	-	-	-	90 (45.0)	-	-	-	-
Once in a week	-	18 (9.0)	1 (0.5)	-	8 (4.0)	-	-	4 (2.0)	-	18 (9.0)
Once in a month	-	2 (1.0)	4 (2.0)	-	12 (6.0)	-	-	7 (3.5)	-	7 (3.5)
Seasonal	-	-	95 (37.50)	90 (47.5)	80 (45.0)	-	4 (40.0)	85 (2.0)	70 (42.5)	75 (350)
Never	-	-	-	10	-	-	-	-	30	-

(Figures in parenthesis indicate percentage of respective values)

Seasonal consumption of maize by rural women was 47.5 per cent, 45.0 per cent women took *bajra* and 40.0 per cent of women take groundnut, 37.5

per cent of urban women were eating rice once a day while 2.5 per cent of urban women were eating maize once a day.

Table 4. Constraints of selected crops

Constraints	Rural	Urban				
	<i>Bajra</i>	Maize	Groundnut	<i>Bajra</i>	Maize	Groundnut
Traditional cause	22 (11.0)	21 (10.5)	39 (19.5)	23 (11.5)	20 (10.0)	32 (16.0)
Psychological effect	18 (9.0)	23 (11.5)	18 (9.0)	25 (12.5)	32 (16.0)	29 (14.5)
Unawareness	26 (13.0)	16 (8.0)	12 (6.0)	4 (2.0)	19 (9.5)	7 (3.5)
Problem in digestion	4 (2.0)	5 (2.5)	1 (0.5)	8 (4.0)	-	9 (4.5)
Unavailability in market	16 (8.0)	4 (2.0)	-	6 (3.0)	1 (0.5)	-

4.0 per cent of rural women have faced unavailability of *bajra*, maize and groundnut crops, whereas, about 1.5 per cent of urban women were faced unavailability of three crops. About 8.5 per cent of urban have faced problems in digestive system due to *bajra*, maize and ground nut while about 1.5 per cent of rural women have faced problem in digestion. Most of the rural women consume these crops seasonally, while, urban women who know nutritive value, health benefits of it and are also aware about these crops, consume these whole of the year, women in U.P.

Conclusion

Bajra (pearl millet) is consider as the fourth most important cereal crop constitutes more than 55 per cent of global millet production and is grown in over 40 countries, predominantly in Africa and the Indian subcontinent. The major producing countries are Senegal, Mali, Niger, Nigeria, Sudan and India. Yellow corn is high in magnesium, which is a very wonderful bowel regulator. It is a bone and muscle builder and an excellent food for brain and nervous system as it is a rich source of phosphorus. Peanuts are rich in nutrients, providing over 30 essential nutrients and phytonutrients. Peanuts are a good source of niacin, folate, fiber, magnesium, vitamin E, manganese and phosphorus.

Recommendation

1. *Bajra* helps in lowering the cholesterol levels. This is due to the presence of phytic acid and niacin.
2. The high amount of fiber present in corn helps lower cholesterol levels and also reduces the risk of colon cancer.
3. Groundnuts are good source of dietary protein compose fine quality amino acids that are essential for growth and development.

References

1. **Balaji** (2011):"Benefits of Groundnut. <http://balaji-m-p.blogspot.com/2011/05/benefits-of-groundnut.html>.
2. **Das, Pranati** (2010) "Apr 06,2010 Millets for Scientific Research and Food Security". <http://www.slideshare.net/FSTnortheast/millets-for-scientific-research-food-security>.
3. **Lacy Deveney** (2008) "Health benefits of corn". <http://nycityeats.com/wordpress/.../health-benefits-corn-8-delicious-recipes/>
