

FINAL TECHNICAL REPORT / RAPPORT TECHNIQUE FINAL

ANNEX 2.3 MILLET USAGE AND ATTITUDE STUDY

Indianet Marketing Services Pvt.Ltd.;

;

© 2018, MCGILL UNIVERSITY



This work is licensed under the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/legalcode>), which permits unrestricted use, distribution, and reproduction, provided the original work is properly credited.

Cette œuvre est mise à disposition selon les termes de la licence Creative Commons Attribution (<https://creativecommons.org/licenses/by/4.0/legalcode>), qui permet l'utilisation, la distribution et la reproduction sans restriction, pourvu que le mérite de la création originale soit adéquatement reconnu.

Millet Usage & Attitude Study

Research findings on a Usage & Attitude study across Urban as well as Rural areas of India.

2017.

Executed on behalf of : **Mr. Venkatesh S.R.**
On behalf of **Department of Biosource Engineering**
McGill University, Macdonald Campus
Ste Anne de Bellevue, QC, H9X 3V9
Canada

By : **Indianet Marketing Services Pvt.Ltd.**
243,1st Floor, Fakhri Manzil,
Perin Nariman Street, Fort,
Mumbai 400 001.
Phone : + 91 22 4030 6001
Email : ghosh.r@indianetms.com

1.**Introduction & background**

A market research study on consumption of minor millets and millets in India among Consumers and Retailers were commissioned by McGill University. This part of the research is a section of a bigger study for understanding Millet consumption, habits , practices followed in India.

The research findings will be primarily used to inform a developmental research project on usage of millets for economic & health benefits. The key findings of the research would also be fed into the business plans & marketing strategies of SME of Food Processing.

The research is planned to indicate insights such as sources of consumer information on healthy foods & ingredients, factors involved in decision making on choices, preferences and expectations.

For this kind of expanded information area both Secondary as well as Primary research was contemplated as only available secondary data is not sufficient or available.

Indianet, a full service marketing research agency , operating since 2003 was commissioned to conduct the research and submit the findings.

This report contains the findings of the research conducted across various cities / towns in India.

2.**Objectives of the Study****Key objectives of the research was to find out the**

- Awareness levels of the different varieties of Millet
- Consumption pattern of the different varieties of Millet- Frequency, volume, price , purchasing habits & practices
- Attitude and preferences of consumers towards different varieties of Millet

Category Awareness and opinion about Millet

1. Top of mind, spontaneous and aided awareness of the different cereals , and the different varieties of Millet
2. Source of awareness of the cereal
3. Spontaneous opinion on millets and it's varieties that they are aware of
4. Perceived health benefits of eating millet
5. Barriers to eating Millet
6. Comparison of millet in terms of good and bad qualities as compared to their staple cereal

Consumption pattern of Millet

1. Main cereal consumed
2. Factors influencing consumption of millet – season , price, habit, taste, health benefits, food preparation process, others
3. Frequency of consuming Millet and its different variety
4. Who all in the household eats Millet
5. Regular and Special preparations made with Millet
6. Reasons for eating Millet being the main consumed cereal or not
7. If started consuming Millet recently and reasons for it
8. Intention to consuming Millet in the future
9. Wanting to change to another cereal as the most frequently consumed

Purchase Process

1. Frequency of purchase
2. Volume purchased at a time,
3. SKU purchased and price paid (to capture price awareness),
4. Factors considered while purchasing cereal/Millet - quality, price, etc

Decision making process

5. Key decision maker for purchasing cereals for the household
6. Influencers – Retailers/ advertising / WOM

To achieve the objectives of the study, we conducted both Secondary Research as well as Quantitative Research.

A. Secondary Research

Includes information from published sources like

Market /Industry journals
Commodity reports on Government or private sites
Newspaper/Magazine articles

All the data gathered from the secondary research is analysed to present findings .

The key objective of the secondary research would be to get some understanding of the market sizes for the different varieties of Millets and the trends in cultivation as well as consumption for the same.

B. Quantitative Research

The quantitative research would be done mainly through personal interviews with the identified target segments.

For this study , we included 3 main segments of respondents

- Regular consumers of Millet
- Consumers of other staple cereal but consuming millet occasionally
- Traders for Millet, mainly retailers and some wholesalers as well

The spread of the study included those states where Millet consumption and production is high as well as certain states where other grains dominate but Millet is consumed occasionally.

Both metros as well as smaller cities were included in the study to understand differences in behaviour amongst urban and semi urban areas.

Personal face to face interviews was conducted with the aid of a structured questionnaire of pre-decided questions to different target audiences.

A detailed questionnaire was prepared covering the “List of Information collected” as mentioned under the section. Our interviewer’s was then trained on the subject and thereafter they conducted the interviews with the target audience.

Care was taken not to reveal the identity of the client before, during and after conducting of the interview.

5.**Research methodology****Quantitative interviews**

In this methodology, face to face interviews were conducted with the target segment with the aid of a structured questionnaire. The questionnaire was developed by the research executive in charge of the project, keeping in mind the information collection needs. The questionnaire was discussed with and approved by the client before it was used for the study.

Different questionnaires were developed for different target segments so that the questioning pattern is appropriate.

The interviews were conducted either through cold calls or through prior appointments. They were in most cases done at the shops or residence of the target segment.

In each city, based on the total sample size and the quotas we drew up the list of areas which needed to be covered for the study. Care was taken to ensure coverage of all the zones in the city.

As there are several types of Millets and they are known with different names across the country, we took help of photographs and showed the same to clients for correct identifications.

6.**Target audience profile**

To achieve the objectives of the study we interviewed Mothers of children aged between 8-12 years falling under the below criteria:

- **Regular consumers of Millet** – Who regularly consumed any type of millet in the household
- **Consumers of other grains but aware of any millet** – Who regularly consumed other grains besides millets but were aware of OR using millets occasionally to prepare dishes

For the Retail interviews mainly retailers and some traders as well were interviewed– these were the stores which regularly stock as well as sell some variety of Millet and are in the business of selling grains and staples for at least 5 yrs.

7.

Sample spread & size

Fieldwork for this study was conducted in the last quarter of 2017.

			<i>Regular consumers of MILLET</i>	<i>Regular consumers of OTHER grains but aware of MILLET or have used occasionally</i>	TOTAL Consumers	<i>Traders of MILLET</i>		TOTAL Trade
						<i>Retail</i>	<i>Trader</i>	
Delhi	Tier 1	Delhi	30	30	60	20	5	25
Kolkata	Tier 1	W. Bengal	28	30	58	20	5	25
Mumbai	Tier 1	Maharashtra	30	29	59	20	5	25
Bengaluru	Tier 1	Karnataka	30	30	60	20	5	25
Chennai	Tier 1	Tamil Nadu	28	33	61	20	5	25
Ambala	Tier 2	Punjab	34	14	48	7	X	7
Ranchi	Tier 2	Jharkhand	30	14	44	6	X	6
Hubli-Dharwar	Tier 2	Karnataka	28	16	44	6	X	6
Salem	Tier 2	Tamil Nadu	39	6	45	6	X	6
All Respondents			277	202	479	125	25	150

Summary of Findings

1. Consumer speak

Category Awareness and opinion about Millet

Majority (87%) of the respondents interviewed recalled some variety of Millet or the other when asked which ones they were aware of. Top of Mind recall was the highest for Pearl Millet (Bajra) 32% followed at a distance by Sorghum(Jowar) 20% and Finger Millet (Ragi) 15%. Out of all the varieties , these three were recalled prominently both at the unaided as well as aided awareness stages. Post aiding it was Sorghum which stood at number 1 position (among Millets) 94% followed by Pearl Millet (bajra) 88% and Finger Millet (Ragi) 60%. Interestingly in smaller towns, the awareness for Little Millet as well as Foxtail Millet was quite high.

Word of Mouth was the only main source of awareness for Millets - either it was the Family members or Friend's / Neighbors who passed on information on the same. Other sources of awareness were negligible.

Millets were considered to be "good for health", "easy to digest", "good for weight reduction" as well as "good for people who have deficiencies in them" but very little was known about them. Not only in terms of variety but the "availability", "knowledge of what to do with the Millet too was missing".

"Good for health", "Easy to digest", "gives required nutrition", "makes bones / body strong", " reduces body weight", "keeps you warm in winter" and "good for diabetics" were some of the key health benefits mentioned.

First of all the major barrier to eat is it's "availability", followed by "very little knowledge on how to cook" or "what to cook". Last but not the least " children / family members do not like the taste" which makes it an occasional grain which can be used for cooking.

Consumption pattern of Millet

Rice and wheat were mainly consumed by almost all the households.

Across all the cities where interviews were conducted, the key factors for considering eating of Millets emerged as "Easy/light to digest" and "Healthy to eat".

Only Pearl and Finger Millet were considered for consumption "once a week". For the other varieties of Millets it was "less often than once a month".

Husband/Main Earner was the main consumer followed by the wife/housewife close behind. Children came in at a second position way behind.

In most cases, Millet cooked was not regular. Among the regular users the dishes prepared were "Roti/Chapati (an Indian flatbread)", Bhakri (a regional version of Indian flatbread)", "Khichdi"(an Indian wet rice like / or with rice preparation of mix millets with other grains), "Dosa"."Kali/Ragi

Ball". In addition, occasionally mostly sweet preparations were made like "Sevai / Kheer"(an Indian sweet dish wet), "Halwa"(an Indian sweet dish semi dry).

Reason for eating Millets was "easy to cook", "good for health" and "can make roti / chapathi / bhakri's (an Indian flatbread) and "easy to cook". Nothing specific was mentioned which made Millet better than Rice or Wheat

For betterment of health some respondents started consuming Millet recently.

Those who are already users of Millets, very few wanted to try a new/additional variety of Millet(only 19% wanted to try) however among the rare/non consumers of Millets the interest level was far higher (50%).Key reasons being "good for health", body becomes strong", "reduces body weight " and "gives nutrients".

Purchase Process

Frequency of purchase was mostly around once a month. As most of the millets are available unbranded and loose, purchasing was done once a week by a large number in smaller quantities. In the Tier 1 cities the most common weight purchased was 1kg. However in the smaller towns Tier 2 there was a notable portion of respondents who bought 5 kgs. at a time.

The presence of branded millets were very few. Hence the number of SKU's available too were very few.

2. Retail speak

Pearl Millet was the most stocked Millet variety followed by Sorghum and Finger Millet. Other types of millets were stocked by only a few retailers.

Overall proportion of Millet sales out of 100% grain sales was between 1-10% compared to Rice 40% and Wheat another 40%.

Over half the retailers sold Millet since long averaging 5 years or more.

Millet sales according to the retail remained the same compared to last year - nearly half (45%) said so. 40% of the retailers also said that the sales have increased over the past. The increase of sales was mainly recorded in the Tier 1 cities.

According to retailers, overall, the consumers of Millet are from various localities around town/city. There is no particular locality where the consumption is higher. The consumption appears to be done most in Middle Class / Upper Middle Class households mostly (68%). The consumption is also present among the poorer class of households. Basically spread across SEC A, B and C households. The Main earner's occupation of Millet consuming households appeared to be mixed from Skilled workers at the

lowest level to the Professionals at the highest. Among businessmen households, consumption appeared to be a little less. Most Millet consuming households appeared to be from educated households. Main purpose for consuming Millet was for Occasional preparations and for Healthier living.

3. In nett

Production of Millets in the country is not too encouraging. Over the decade, overall production is heading slightly downwards. Though the popularly used millets are trying to hold on to their position, the smaller millets are losing out slowly but steadily.

Due to the unknown uses , benefits and cooking methods, Millets were not too popular and still is. However in the urban cities (Tier 1) it is gaining popularity due to it's health related benefits. In fact across cities / towns at present Millets mostly are available loose. But scouring the Supermarkets and Hypermarkets it has been discovered more and more branded products are coming in both organic as well otherwise.

Retail shops stock Millets however the proportion of sales being low it is not a pull product grain compared to Rice and Wheat.

According to retailers, Overall, the consumers of Millet are from various localities around town/city. There is no particular locality where the consumption is higher. The consumption appears to be done most in Middle Class / Upper Middle Class households mostly (68%). The consumption is also present among the poorer class of households. Basically spread across SEC A, B and C households. The Main earner's occupation of Millet consuming households appeared to be mixed from Skilled workers at the lowest level to the Professionals at the highest. Among businessmen households, consumption appeared to be a little less. Most Millet consuming households appeared to be from educated households. Main purpose for consuming Millet was for Occasional preparations and for Healthier living.

Detailed Findings

Secondary Research

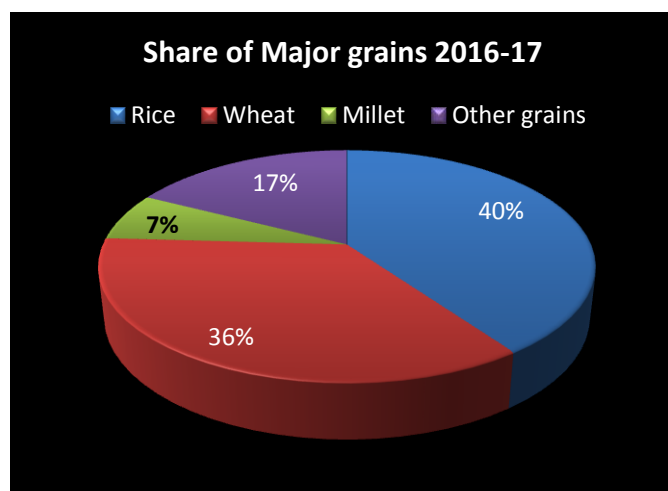
8. Millets – crop production, projections in India

From the Nutrition angle Millet scores positively with Wheat as well as Rice, the main staples being consumed in the country. The profile of various grains (in 110gms) is given in the table below to indicate the positives Millets have vis-à-vis Wheat and Rice.

Foodgrain	Carbohydrates (g)	Protein (g)	Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)
Sorghum	72.6	10.4	1.9	349	25	4.1
Bajra	67.5	11.6	5	361	42	8
Finger millet	72.0	7.3	1.3	328	344	3.9
Foxtail millet	60.9	12.3	4.3	331	31	2.8
Kodo millet	65.9	8.3	1.4	309	27	0.5
Proso millet	70.4	12.5	1.1	341	14	0.8
Barnyard millet	65.5	6.2	2.2	307	20	5
Little millet	67.0	7.7	4.7	341	17	9.3
Wheat (whole)	71.2	11.8	1.5	346	41	5.3
Rice (raw, milled)	78.2	6.8	0.5	345	10	0.7

Source : **National Institute of Nutrition, Hyderabad**

However from the production figures the basic staples rice and wheat are way ahead of Millets. Rice was the highest produced crop in the country followed closely by Wheat.



Millets was the third highest staples (all the different varieties of Millets taken together) at 7% of the total crop production.

The pattern was more or less similar across the previous 10 years.

Source : **Ministry of Agriculture & Farmers Welfare, Government of India.** www.data.gov.in

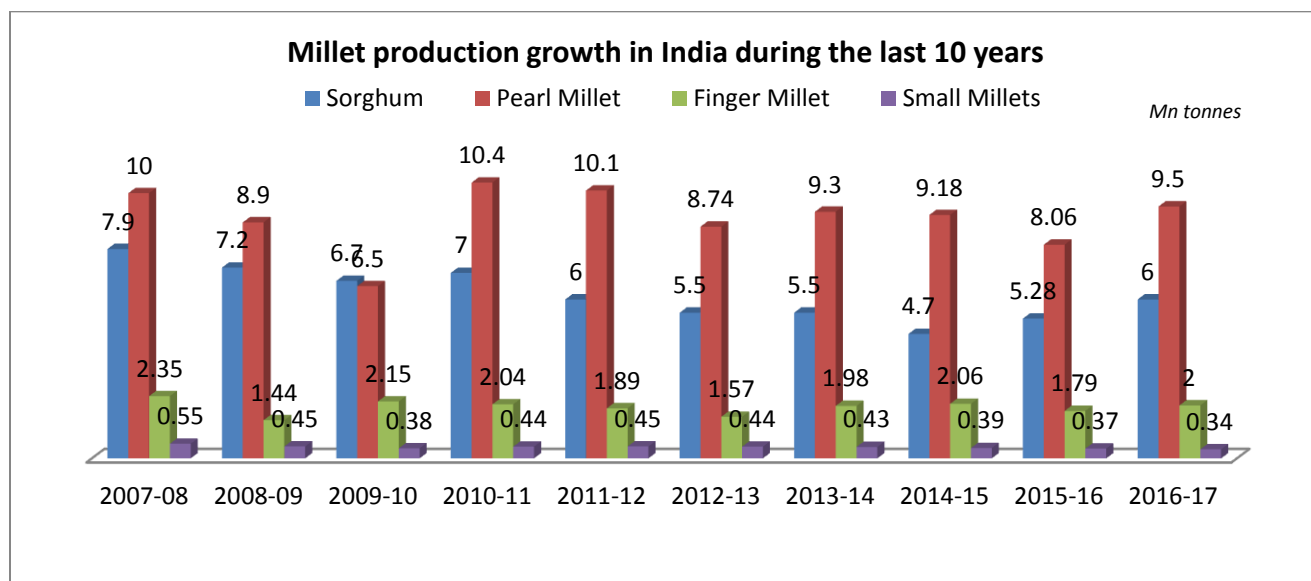
	Production in 2016-17	
Total	270.1	100
		%
Rice	108.5	40.17
Wheat	96.5	35.73
Millet	18	6.66
Pearl	9.5	3.52
Sorghum	6	2.22
Finger	2	0.74
Others	0.5	0.19
Other grains		17.44

6.66% was the total proportion of Millets produced during the year 2016-17.

Pearl Millet and Sorghum were the most popular ones produced followed at a great distance by Finger millet. The production of other millets compared to the total production of millets was negligible.

Source : **Ministry of Agriculture & Farmers Welfare, Government of India.** www.data.gov.in

The fortune of Millet production went through a see saw of production during the last 10 years.



Source : **Ministry of Agriculture & Farmers Welfare, Government of India.** www.data.gov.in

The years 2012-13 up to 2014-15 (3 years) the production of Sorghum was the lowest. Since the last 2 years and the same is now picking up and is on the upswing.

The production of Pearl Millet did also see some dips however over the past 5 years it is faring better than Sorghum and increasing it's production gradually. Finger millet (on a smaller scale) appears to progress like Pearl Millet.

For other small millets, the production appears to be growing smaller by the year.

									(Mn Tonnes)	
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Rice	96.7	99.2	89.1	96.0	104.3	105.2	106.6	105.4	104.3	108.5
Wheat	78.6	80.7	80.8	86.9	93.9	93.5	95.8	95.8	93.5	96.5
Sorghum	7.9	7.2	6.7	7.0	6.0	5.5	5.5	4.7	5.28	6
Pearl Millet	10.0	8.9	6.5	10.4	10.1	8.74	9.3	9.18	8.06	9.5
Finger Millet	2.35	1.44	2.15	2.04	1.89	1.57	1.98	2.06	1.79	2
Small Millets	0.55	0.45	0.38	0.44	0.45	0.44	0.43	0.39	0.37	0.34

Source : **Ministry of Agriculture & Farmers Welfare, Government of India.** www.data.gov.in

9.

News articles on Millet for reference

1. A Forgotten Group Of Grains Might Help Indian Farmers – And Improve Diets, Too

Source : <https://www.npr.org/sections/thesalt/2017/02/09/514171025/how-an-indian-state-is-putting-millet-back-on-people-s-plates>

2. India asks UN to declare 2018 as International year of millets

Source : <https://economictimes.indiatimes.com/news/politics-and-nation/india-asks-un-to-declare-2018-as-international-year-of-millet/articleshow/61751411.cms>

3. Karnataka seeks support from states to popularise millets

Source : <http://indiatoday.intoday.in/story/ktaka-seeks-support-from-states-to-popularise-millet/1/1098283.html>

4. Why should we eat millets

Source : <http://www.livemint.com/Leisure/o4kfYaS3XMDDJhggmObd3L/Why-should-we-eat-millet.html>

5. Make a meal of millets

Source : <http://www.thehindu.com/features/metroplus/begin-2016-with-millet-diet/article8050211.ece>

6. A Superfood Kind of Navratri: Day 2 - Cooking With Samai (Little Millet)

Source : <https://food.ndtv.com/food-drinks/a-superfood-kind-of-navratri-day-2-cooking-with-samai-little-millet-1468531>

7. Millets are an Important Source of Nutrition: Experts

Source : <https://food.ndtv.com/food-drinks/millets-are-an-important-source-of-nutrition-experts-1409949>

8. Paunk or Ponk: Say Hello To Gujarat's Most Loved Winter Snack!

Source : <https://food.ndtv.com/food-drinks/paunk-or-ponk-say-hello-to-gujarats-most-loved-winter-snack-1789255>

9. Karnataka to Sell Wheat, Millets at Re.1 per kg to Poor

Source : <https://food.ndtv.com/food-drinks/karnataka-to-sell-wheat-millets-at-re-1-per-kg-to-poor-693862>

10. Finger Millet: A “Certain” Crop for an “Uncertain” Future and a Solution to Food Insecurity and Hidden Hunger under Stressful Environments

Source : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5404511/>

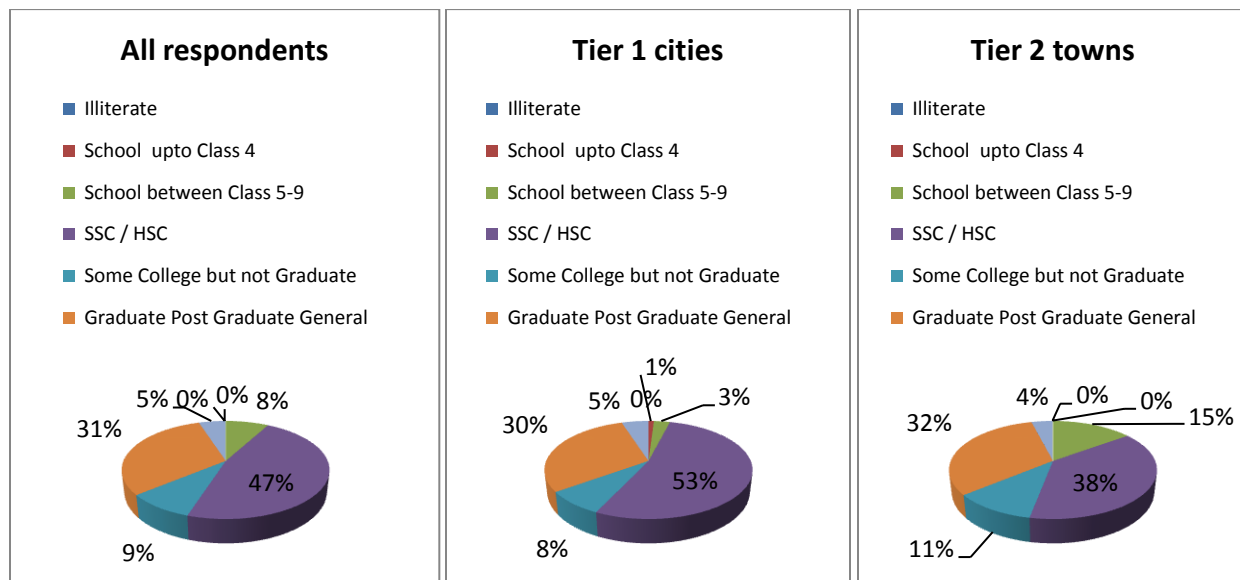
11. Dietary Interventions for Type 2 Diabetes: How Millet Comes to Help

Source : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5037128/>

Primary Research - Consumers Section

1.1 Q.B. Education of the Main Earner

Majority of the respondents were from households whose main earner was educated SSC / HSC upwards (92%). Only 8% claimed having done some schooling.



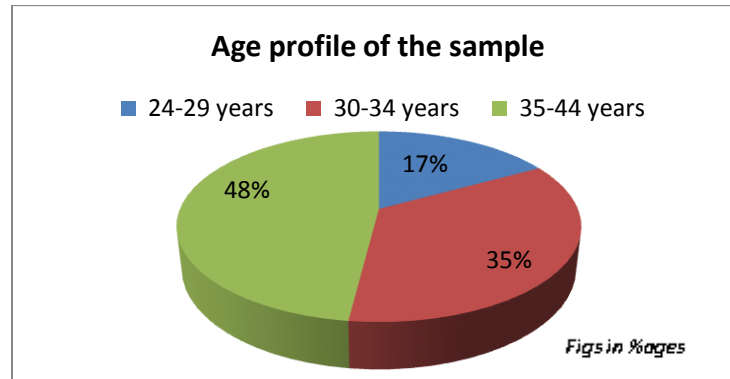
1.2 Q.C. Occupation of the Main Earner

38% of the sample was from Business community background, 40% came from the Service stream (white collar professions / service) and the balance constituted of Petty Trade, Skilled workers and others.



1.3 Q.D. Age profile of the sample

Most of the respondents were from the age group of 35 to 44 years (48%), followed by 30-34 years and 24-29 years respectively. Main condition for interviewing was the respondents should have been a mother of a 8-12 year old child.



2.1 Q.1a. Grains used /cooked regularly at least once a week

Besides Rice and Wheat which is the most common grain used across all the households, Millet was the third most popular grain used. Though third most popular, the proportion of households using millets were quiet low.

Most popular millet among the different varieties were Finger Millet , Sorghum and Pearl Millet. Pearl Millet appeared to be popular in the North and Eastern parts of India. Sorghum appeared to be popular West, South of India as well as Eastern India (Tier 1 towns). Finger Millet appeared to be most popular in Western and Southern India.

		Town class		Type		SEC		
	Total	Tier1	Tier2	Reg. Consmr	Aware Non Consmr.	A	B	C
Base: All Respondents	479	299	180	277	202	131	169	179
	%	%	%	%	%	%	%	%
Rice	100	100	99	100	100	99	100	99
Wheat	99	100	99	99	100	99	99	100
Sorghum	36	36	36	52	14	42	36	32
Finger Millet	36	34	39	54	11	33	38	36
Pearl Millet	35	31	43	48	17	44	38	27
Maize / Corn	28	19	42	37	15	31	31	21
Barley	5	5	6	8	2	9	4	4
Barnyard Millet	0	0	0	0	0	0	0	1
Foxtail Millet	0	0	1	1	0	1	1	0
Little Millet	0	0	0	0	0	0	0	1
Kodo millet	0	0	0	0	0	0	0	0

2.2 Q.1b. Grains used/cooked most in the household

Only 9% of the households claimed that millet was cooked most in their households.

2.3 Q.1c. Main reasons for using/cooking with a particular grain

Rice was favored most for familiarity, tastiness, easy to digest and not being so expensive. Wheat on the other hand had stronger health connotations attached to it – Healthy, good for the heart and good for weight loss.

Millet was considered to be “healthy” and “good for weight loss” which was why the same was being consumed.

Rank # 1	Rice	Wheat	Barley	Sorghum	Pearl Millet	Finger Millet
	%	%	%	%	%	%
Familiar with it in the household	68	21	*	4	3	3
Aware of many recipes with it	46	37	*	5	7	4
Healthy	21	33	*	10	17	19
Good for the heart	19	41	1	11	13	15
Good for weight loss	15	47	1	13	15	8
Easy to digest	44	24	1	13	13	4
Tasty	56	23	*	7	10	3
Not so expensive	37	43	*	5	10	4

3.1 Q.1d & e. Awareness of Millet – Top of mind, Unaided & Aided recall

Top of mind awareness of Millet was quiet positive. 87% of the respondents interviewed recalled some form of millet. Most popular was Pearl Millet(Bajra)32% followed by Finger Millet 25%, Sorghum (Jowar) 20%. 14% of the respondent only recalled the generic name of Millet.

Between the 2 Tiers of towns covered for the study, awareness of Pearl Millet(Bajra)& Sorghum (Jowar) was far higher at the Top of Mind awareness level.

TOP OF MIND RECALL		Town class		Type		SEC		
	Total	Tier1	Tier2	Reg.Co nsmr	Aware Non Consmr.	A	B	C
Base: All respondents	479	299	180	277	202	131	169	179
	%	%	%	%	%	%	%	%
Pearl Millet	32	29	38	34	31	35	38	25
Finger Millet	15	19	14	23	27	16	21	35
Foxtail Millet	0	0	1	0	0	0	1	0
Kodo Millet	0	0	0	0	0	0	0	0
Little Millet	3	5	0	3	3	2	1	6
Barnyard Millet	1	2	0	3	0	0	3	1
Sorghum	20	17	26	16	26	26	16	20

At the Unaided level, Pearl Millet (Bajra) and Sorghum (Jowar) was more popular across Tier 1 markets whereas it was Finger Millet which was better known, than Pearl Millet and Sorghum in the Tier 2 markets.

Post aiding, the awareness levels of Sorghum (Jowar) rose to 85% followed by Pearl Millet (Bajra) at 69% with Finger Millet (Nachni, Ragi) at third position 52%.

Awareness of other types of Millet were found to be very low.

- Little Millet 47%
- Foxtail Millet 39%
- Kodo Millet 17%
- Barnyard Millet 19%

Overall, nearly everyone interviewed for the study knew about 1 type of millet or the other.

TOTAL RECALL (TOM + Unaided + Aided)		Town class		Type		SEC		
	Total	Tier1	Tier2	Reg. Consmr	Aware Non Consmr.	A	B	C
Base: All respondents	479	299	180	277	202	131	169	179
	%	%	%	%	%	%	%	%
Pearl Millet	88	91	83	86	91	95	83	88
Finger Millet	60	52	73	62	56	60	60	59
Foxtail Millet	40	32	52	45	33	50	39	32
Kodo Millet	18	9	31	23	9	17	21	15
Little Millet	48	34	71	56	37	47	49	48
Barnyard Millet	20	12	32	28	8	18	24	17
Sorghum	94	95	93	94	95	97	94	92

3.2 Q.1f-i Usage of Millet at home – Occasional usage, regular usage, cooked most, types of Millet used in the past but have stopped using

Around 3/4th of the sample claimed using some type of millet occasionally (74%).

Major types of Millet occasionally used were Sorghum (Jowar) 40% , Pearl Millet (Bajra) 36%, Finger Millet 25% and Little Millet 23%.

Other types of Millet were used by a small proportion of respondents.

Usage of Millet occasionally were higher in the Tier 2 towns.

USED OCCASIONALLY		Town class	
	Total	Tier1	Tier2
Base: All respondents	479	299	180
	%	%	%
Pearl Millet	36	35	36
Finger Millet	25	25	24
Foxtail Millet	7	4	15
Kodo Millet	3	1	7
Little Millet	23	22	26
Barnyard Millet	7	5	11
Sorghum	40	38	43

Compared to occasional usage, the regular usage of Millet were far lower at 57%.

Major Millet cooked regularly were Pearl Millet (Bajra) 23%, Sorghum (Jowar) 19% and Finger Millet (Ragi , Nachni) 15%.

COOK REGULARLY ONCE A WEEK		Town class		Type		SEC		
	Total	Tier1	Tier2	Reg.Co nsmr	Aware Non Consmr.	A	B	C
Base: All respondents	479	299	180	277	202	131	169	179
	%	%	%	%	%	%	%	%
Pearl Millet	23	20	28	40	0	27	27	17
Finger Millet	15	18	14	31	0	24	30	18
Foxtail Millet	1	0	3	2	0	3	1	0
Kodo Millet	0	0	1	0	0	0	1	0
Little Millet	1	1	1	2	0	1	2	1
Barnyard Millet	3	4	0	5	0	1	3	4
Sorghum	19	19	18	32	0	23	18	16

A negligible few had stopped using Millets in the past 1 year.

STOPPED USING IN PAST 1 YEAR		Town class	
	Total	Tier1	Tier2
Base: All respondents	479	299	180
	%	%	%
Pearl Millet	2	1	3
Finger Millet	1	1	2
Foxtail Millet	2	1	4
Kodo Millet	0	0	0
Little Millet	2	0	5
Barnyard Millet	2	0	6
Sorghum	1	1	2

3.3 Q.2a,b. First as well as other sources of awareness about Millet

Key source of awareness of various types of Millet were restricted to family members and friend's / neighbors. Word of mouth amongst known people was the key source. Over 3/4th's of the sample who were aware of a particular type of millet claimed to know about it from Family member or a friend/neighbors.

Second most important source of awareness was TV followed by Doctor's (specifically in the case of Finger millet).

	Pearl	Finger	Foxtail	Kodo	Little	Barn yard	Sorghum
	First + Others	First + Others	First + Others	First + Others	First + Others	First + Others	First + Others
Base :	422	287	192	86	230	96	450
	%	%	%	%	%	%	%
Family member	83	87	86	75	78	71	81
Friend / Neighbour	86	82	83	71	71	73	85
Read in Newspaper	9	13	13	5	8	13	19
Saw it on TV	8	6	16	10	15	7	7
Heard it on Radio	1	3	0	2	1	0	1
Doctor / Nutritionist told	9	28	1	1	5	0	5
Shop/Shopkeeper	8	4	0	0	14	9	5

3.4 Q.3. Benefits of eating Millet

Different types of millet had different key benefits as perceived by the consumers. If it was "good for health" and "easy to digest" for Pearl Millet, it was "keeps health good" and "gives the required nutrition" for Sorghum.

Finger and Foxtail Millet was perceived to be "good for diabetics".

Little and Kodo Millet were "meant for weight loss" and "keeping one healthy".

Barnyard millet was perceived to be "good for the heart", " makes bones strong" and "has vitamins / minerals".

Pearl Millet	
Base :	356
	%
Good for health	24
Easy to digest	16
Has good taste	14
Gives required nutrition / has vitamins	14
Good for Winter	13
Makes body feel warm	8

Sorghum	
Base :	331
	%
Health remains good	25
Gives required nutrition	14
Makes bone strong / body becomes strong	21
Easy to digest	16
Has vitamins / fiber nutrients	19
Good taste	8

Finger Millet	
Base :	219
	%
Good for Diabetes patient / controls Diabetes	33
Gives good nutrition / can get Calcium	29
Can give it to small kids	13
Beneficial for heart patients	11

Foxtail Millet	
Base :	134
	%
Keeps body temperature in control / body cool	29
Good for Diabetes patient/controls Diabetes	16
Controls Cholesterol	13
Good for health	9
Gives required nutrition	7

Little Millet	
Base :	70
	%
Good for health	23
Good for weight loss	20
Gives required nutrition / rich in nutrients	16
Good for bones	13

Kodo Millet	
Base :	31
	%
Reduces body weight	26
Keeps one healthy	16
Gives required nutrition	13

Good for Diabetics / controls sugar	12
Controls Cholesterol	10

Barnyard Millet	
Base :	28
	%
Heart remains good	46
Makes bones strong	21
Has vitamins / minerals	18
Removes Cholesterol	14
Makes nerves strong	11

3.5 Q.4 a,b.Importance of factors considered for eating Millet

Mean scores were calculated out of a maximum possible score of 5.00 (indicating BEST score). Importance of factor for consuming Millet were as follows :

<i>Healthy to eat</i>	<i>4.86 out of a maximum 5.00</i>
<i>Light to digest</i>	<i>4.39 out of a maximum 5.00</i>
<i>Family members like it</i>	<i>4.35 out of a maximum 5.00</i>
<i>and</i>	
<i>Tasty</i>	<i>4.33 out of a maximum 5.00</i>

“Ease of preparation”, “reasonable price” and “habituated to eat it since childhood” were the other important factors for consuming Millet.

	Very Important	Quiet Important	Neither important nor unimportant	Quiet important	Not at all important	Mean Score
Healthy to eat	86	14	0	0	0	4.86
Tasty	47	40	12	1	0	4.33
Light to digest	46	48	6	0	0	4.39
Family members like it	46	44	10	1	0	4.35
Habituated to eating since childhood	36	46	15	3	1	4.13
Easy to prepare	36	48	14	1	0	4.19
Reasonably priced	35	46	15	3	1	4.13
Good for the season	28	43	24	5	0	3.94
Can be served with any type of dishes	21	48	22	9	0	3.79

“Healthy to eat” was the most important factor why Millet was consumed. A large majority (86%) considered the reason to be Very Important.

	Total	Tier1	Tier2
TOP BOX			
Base :	353	201	152
	%	%	%
Healthy to eat	86	89	82
Tasty	47	55	38
Light to digest	46	46	45
Family members like it	46	56	33
Easy to prepare	36	45	25
Habituated to eating since childhood	36	34	38
Reasonably priced	35	38	32
Good for the season	28	33	22
Can be served with any type of dishes	21	19	22

“Healthy to eat” was one of the key factors which made consumers select a millet to eat. This was across most of the cities/towns. Except in Mumbai, the most important rank was “light to digest” and in Chennai “Tasty”.

Rank 1	Delhi	Kolkata	Mumbai	Bengaluru	Chennai	Ambala	Ranchi	Hubli-Dharwar	Salem
Healthy to eat	30	52	29	69	26	62	46	84	32
Light to digest	41	45	42	10	0	27	20	9	0
Tasty	5	3	6	10	67	12	3	4	0
Good for the season	23	0	3	2	7	0	0	0	0
Easy to prepare	0	0	6	2	0	0	0	0	0
Can be served with any type of dishes	0	0	7	0	0	0	7	0	0
Reasonably priced	0	0	0	5	0	0	6	0	0
Habituated to eating since childhood	0	0	3	0	0	0	7	0	0
Family members like it	0	0	3	0	0	0	7	2	0

3.6 Q.4 c. Reasons for cooking Millet regularly at home

Various reasons emerged for different types of Millet.

Main reasons for consuming Pearl Millet was due to it being “Good for health” and “has a good taste”.

For Sorghum it was “easy to cook”, “good for health” and “can make bhakri’s (a regional Indian flatbread).

And for Finger millet, it was “can make bhakri’s (a regional Indian flatbread)”, “can give it to small kids”, “Can make Papad (an Indian wafer snack)” and “for good health”.

The other types of Millets were consumed by a negligible few regularly.

Pearl Millet	
Base :	114
	%
Good for health	32
Has a good taste	21
Can make Bhakri’s (a regional Indian flatbread)	15
Gives required nutrition	14
Good for winter	11
Makes bones strong	9
Easy to digest	8
Easy to cook	7
Reduces body weight	6
Gives warmth to the body	6

Sorghum	
Base :	104
	%
Easy to cook	27
Good for health	24
Can make Bhakri’s (a regional Indian flatbread)	24
Gets fiber	13
Has a good taste	12
Can make Papad (an Indian wafer snack)	10
Using since a long long time	10
Gives required nutrition	7

Finger Millet	
Base :	100
	%
Can make Bhakri's (<i>a regional Indian flatbread</i>)	24
Can give to small kids	24
Can make Papad (<i>an Indian wafer snack</i>)	23
Good for Health	21
Easy to cook	14
Using it since a long long time	14
Gives required nutrition	11
Has a good taste	10
Good for diabetics / diabetes control	9
Is a regional food	9
Can get Calcium	6
Can make different dishes	6
Family members like it	6

Foxtail Millet	
Base :	9
	Nos.
Good for health	3
Easy to cook	2

Little Millet	
Base :	2
	Nos.
Good for health	2
Makes body cool	2
Good for the stomach	2

Kodo Millet	
Base :	1
	No.
Gives protein	1
Has a good taste	1

Barnyard Millet	
Base :	12

	%
Reduces body weight	83
Gives digestive power	42
Reduces cholesterol	33
Gives good strength	17
Good for health	16
Easy to digest	8
Gives fiber nutrients	8

3.7 Q.4 d. Reasons for not trying Millet despite being aware

4 key reasons emerged for not trying out a particular type of millet despite being aware of the same were “Don’t know what to cook”, “Don’t know how to cook”, Not much knowledge about it” and “Not easily available”.

Pearl Millet	
Base :	77
	%
Don’t know what to cook	39
Don’t know how to cook	26
Not easily available	17
Not much knowledge about it	13

Sorghum	
Base :	91
	%
Don’t know what to cook	24
Don’t know much about it	14
Don’t know how to cook	10
Not easily available	11

Finger Millet	
Base :	7
	Nos.
Not much knowledge about it	3
Not tried just like that	2
Not easily available	1
High priced	1

Foxtail Millet	
-----------------------	--

Base :	66
	%
Don't know what to cook	36
Don't know how to cook	33
Don't know much about it	17
Never eaten it	10

Little Millet	
Base :	46
	%
Not easily available	37
Don't know how to cook	24
Don't know what to cook	17

Kodo Millet	
Base :	19
	Nos.
Not easily available	6
Don't know about it	5
Don't know how to cook	2
Kids do not like it	2
Do not know what to cook	2

Barnyard Millet	
Base :	11
	Nos.
Did not feel like it	4
Not easily available	3
Don't know what to cook	3

3.8 Q.4 e. Reasons for discontinue cooking Millet at home

Key reason for discontinuing usage in the household was “kids/family members did not like it”.

	Pearl Millet	Sorghum	Finger Millet	Foxtail Millet	Kodo Millet	Little Millet
Base :	8	3	2	4	1	1
	Nos.	Nos.	Nos.	Nos.	No.	No.
Kids do not like it	3	2	-	4	1	1
Family members do not like it	1	1	2	-	-	1
Available in adulterated form	1	-	-	-	-	1

3.9 Q.5 a. Frequency of consuming Millet at home

“Pearl millet” and “Finger millet” were consumed more “once a week”.

Whereas the usage of Sorghum was spread between “once a week” to “once a fortnight” to “once a month” or even “less often”.

Sorghum millet was more like a type which can be consumed anytime.

	Pearl Millet	Sorghum	Finger Millet	Foxtail Millet	Kodo Millet	Little Millet	Barnyard Millet
Base :	309	275	231	70	33	110	32
	%	%	%	%	%	%	%
Daily	1	11	11	0	3	1	0
2-3 times a week	11	5	8	3	3	2	0
Once a week	39	13	26	10	6	4	28
Once a fortnight	11	10	24	3	9	6	6
Once a month	9	13	13	10	30	10	10
Less often	29	44	17	74	43	77	56

3.10 Q.5 b. Preparation of dishes using Millet at Home

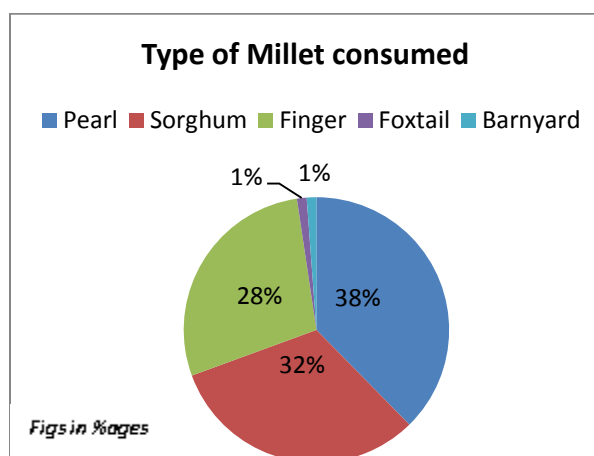
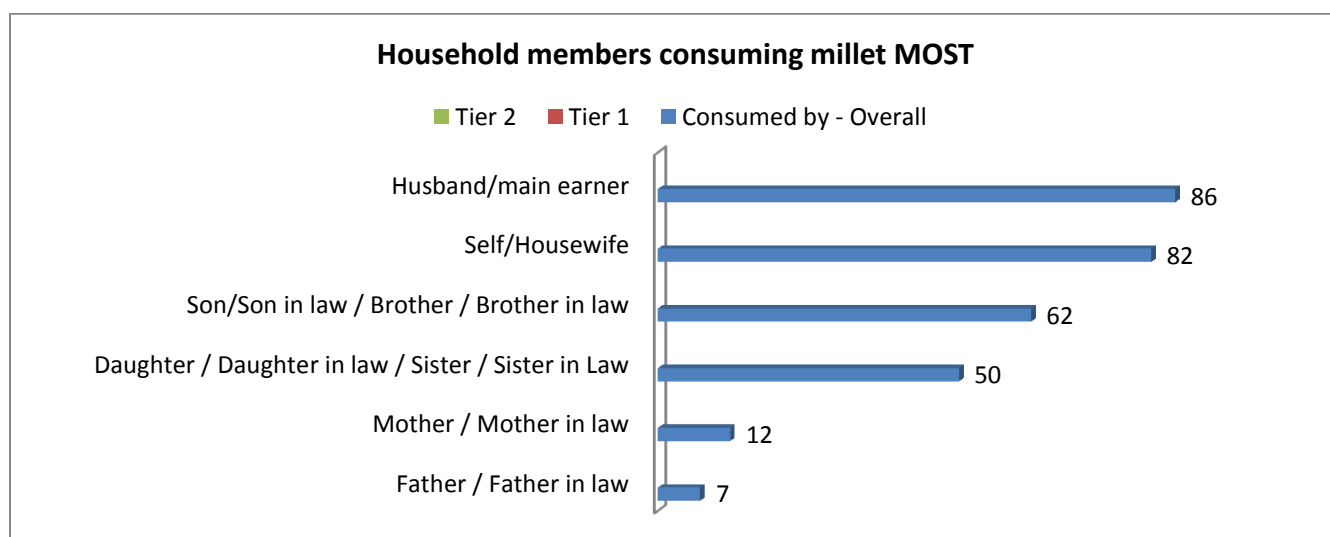
Main dish was prepared by the millet which was consumed in the household. The key dishes which were prepared were carbs “Roti/Chapati (Indian flatbread)”- “Bhakri (a regional Indian flatbread)” - “Dosa”, “ Papad (an Indian wafer snack) and “Sweet dishes”.

	Pearl Millet	Sorghum	Finger Millet	Foxtail Millet	Kodo Millet	Little Millet	Barnyard Millet
Base :	309	275	231	70	33	110	32
	%	%	%	%	%	%	%
Roti/Chapati (Indian flatbread)	36	35	42	0	0	0	0
Bhakri (a regional Indian flatbread)	18	20	25	0	0	52	0
Sevai / Kheer (an Indian sweet dish wet)	2	0	13	19	3	14	25
Halwa (an Indian sweet dish semi dry)	2	0	0	7	0	10	0
Sweet Paratha (an Indian sweet dish)		0	0	7	0	0	0
Kali / Ragi Ball	4	7	38	0	0	0	0
Upma		0	0	0	0	0	31
Dosa / Adai	14	11	24	17	6	3	0
Papad (an Indian wafer	1	4	18	0	0	7	0

snack)							
Malt		0	15	0	0	0	0
Porridge	5	5	0	0	0	0	6
Khichdi (an Indian wet rice like / or with rice preparation of mix millets with other grains)	31		4	1	9	1	
Pongal	0	1	0	1	15	2	16

3.11 Q.5 c. Profile of a Millet consuming household

Main consumer of millets turned out to be the Husband/Main Earner of the household followed by the wife/housewife. Only 3 types of millets were popular among them to consume – Pearl Millet, Sorghum and Finger Millet.



3.12 Q.5 d. Period of usage of Millet

Among the major millet ever consumed by the respondents, Finger, Foxtail, Sorghum and Little Millet appeared to be used since the longest period of time (mostly since childhood). Pearl Millet users appeared to be more recent ones.

	Pearl Millet	Sorghum	Finger Millet	Foxtail Millet	Kodo Millet	Little Millet	Barnyard Millet
Base :	344	296	251	89	26	112	36
	%	%	%	%	%	%	%
Since the last 5 years	43	33	18	54	31	39	33
Between 6 to 10 years	13	13	12	7	0	8	13
Between 11 to 15 years	4	1	4	4	0	1	1
16 years or more than that	13	15	15	15	50	5	15
Since Childhood	27	38	51	51	19	47	38

3.13 Q.5 e. Type of Millet planning to consume in the near future

Among the regular consumers, only a fifth (19%) expressed interest in trying out a different type of Millet.

The interest level was higher among aware non users with 50% wanting to try out some millet or the other.

	Consumers of Millet	Non consumers of Millet
Base :	277	202
	%	%
Wishes to consume in the future	19	50
Not interested	81	50

	Consumers of Millet	Non consumers of Millet
Base :	53	101
	%	%
Any Millet	15	11
Pearl	4	1
Finger	2	3
Foxtail	1	2
Kodo	2	4
Little	9	1
Barnyard	13	1
Sorghum	0	0

3.14 Q.5 f. Reasons for starting consumption of Millet at home

The key reasons for starting on millet were purely health related “ Good for health”, “body becomes strong” and “reduces body weight”.

Good for health	14%
Body becomes strong	12%
Reduces body weight	10%
Has vitamins / gives nutrients	6%
Makes bones strong	5%
Has a good taste	5%
Easy to digest	3%
Reduces cholesterol	3%

3.15 Q.5 g. Reasons for wanting to consume Millet at home

“Health” was the single most important factor for which Millet was considered for consumption at home.

Good for health	19%
Body becomes strong	6%
Makes bones strong	5%
Reduces body weight	5%
Gives required nutrients	4%

3.16 Q.6 a. Frequency of consumption of Millet at home

Though a lot of respondents wanted to try millet at home, it was mainly once a week or less often than that.

	Total	Tier 1	Tier 2
Base :	304	185	119
	%	%	%
Daily	0	1	0
2-3 times a week	7	3	14
Once a week	28	20	39
Once a fortnight	16	13	19
Once a month	18	22	12
Less often	30	41	13

And the opinion did not change while wanting to start on different types of Millets. For Barnyard, Pearl, Kodo and Finger Millet, the interest level was higher (around a fourth wanting to try out the millet once a week for Pearl Occasional / Less Often for the others).

	Pearl Millet	Sorghum	Finger Millet	Foxtail Millet	Kodo Millet	Little Millet	Barnyard Millet
Base :	240	2	76	30	109	31	280
	%	Nos.	%	%	%	%	%
Daily	1	0	3	7	1	0	4
2-3 times a week	6	0	5	0	1	6	7
Once a week	25	0	1	0	1	23	5
Once a fortnight	13	2	3	3	7	6	7
Once a month	24	0	15	10	8	23	23
Less often	29	0	64	80	75	42	50

3.17 Q.6b-e. Purchase habits of Millet – Quantity bought at a time, SKU / Pack quantity bought at a time, Amount paid and Type of shop bought from

Higher quantities of Millet was purchased in Tier 2 towns compared to Tier 1 cities.

Most common SKU size which was bought was 1kg or 2 kg pack. As there are only few branded products in the market, in most cases, loose millet was purchased either in 1kg or 2 kg units.

In the Tier 2 town category, around a fifth (17%) bought 5kg units at a time.

In Tier 1 cities, 12% of the consumers only bought 500gms at a time.

	Total	Tier 1	Tier 2
Base :	304	185	119
	%	%	%
500 gms.	8	12	2
1 kg	41	50	27
2 kgs	26	25	27
5 kgs	8	2	17

The most common price paid was in the price band of Rs.26-50.

	Total
Base :	304
	%
Upto Rs.25	10
Rs.26-50	53
Rs.51-100	31
Rs.101+	1

Main source of getting millets was from Kirana stores (51%), the next most popular source was General stores (28%).

	Total
Base :	304
	%
Kirana Stores	51%
General Stores	28%
Modern Store	11%

4.1 Media habits & practices of consumers as well as non consumers of Millet

Only around a half had a smart phone with them giving direct access to the internet.

		Town class		Type		SEC		
	Total	Tier1	Tier2	Reg. Consmr	Aware Non Consmr.	A	B	C
Base :	479	299	180	277	202	131	169	179
	%	%	%	%	%	%	%	%
Owns a								
Smart phone	52	47	59	56	47	62	60	37
Normal phone	48	53	41	44	53	38	40	63
Connectivity								
Post paid	6	5	8	6	6	10	7	3
Pre paid	94	95	92	94	94	90	93	97

Among the smart phone users nearly everyone was on Whatsapp half of whom were also on Face book. Checking or using emails were very less at 12%. Usage of Twitter or Instagram was negligible.

		Town class	
	Total	Tier1	Tier2
All interviewed	479	299	180
Base: All Having Smart Phone	249	142	107
	%	%	%
Email	12	16	7
Facebook	58	80	30
Twitter	3	1	6
Whatsapp	93	89	97
Instagram	6	7	6

TV viewing was most popular followed at a distance by Newspaper reading. Radio was found to be the 3rd most medium of media used.

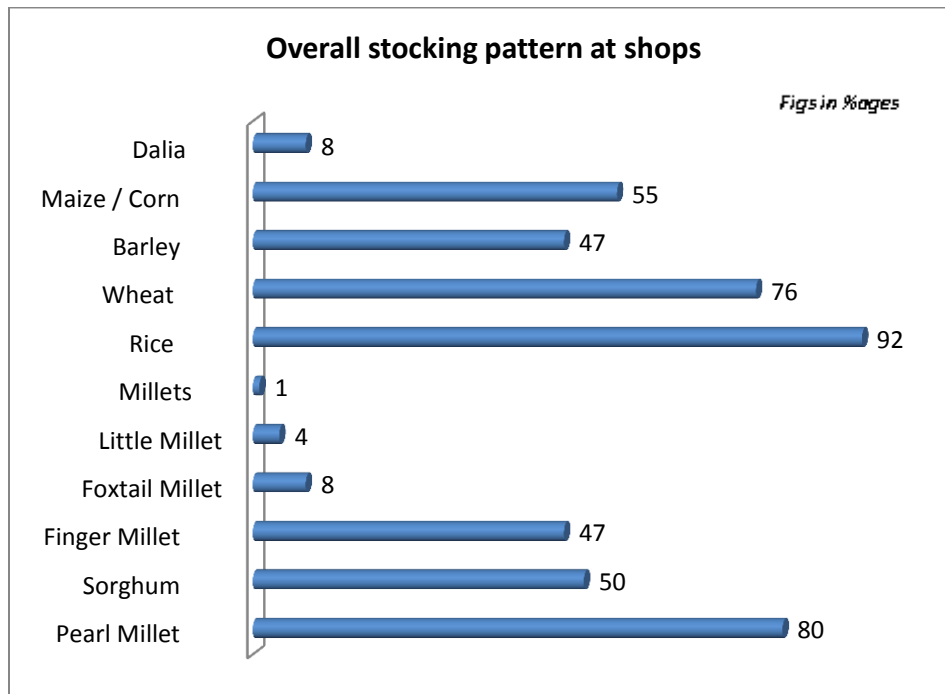
			Town class	
		Total	Tier1	Tier2
		%	%	%
All interviewed		479	299	180
Watches TV	7 days	98	98	98
Listens to Radio	7 days	16	13	20
	6 days	6	7	5
	5 days	4	5	2
	4 days	5	3	8
	None	64	66	62
Reads Newspapers	7 days	32	32	33
	6 days	5	3	7
	5 days	5	3	8
	4 days	7	5	11
	None	38	38	39
Reads Magazines	7 days	4	4	3
	2 days	7	12	0
	1 day	11	16	3
	None	72	60	91

Serials, News, Movies and Comedy shows were the top favorites amongst the Tier 1 cities. In the smaller cities, it was only Serials and News.

Though in Tier 1 city Serials were way ahead in the top most preferred program, in Tier 2 towns the scenario was different. Here both Serials as well as News was nearly at par.

		Town class	
	Total	Tier1	Tier2
Base: Those watched TV at least once a week	479	299	180
	%	%	%
Serials	87	94	77
News	60	54	71
Movies	48	57	35
Comedy	38	50	17
Sports	17	23	6
Shows	7	10	3
Cookery	1	1	2
Others	0	0	0

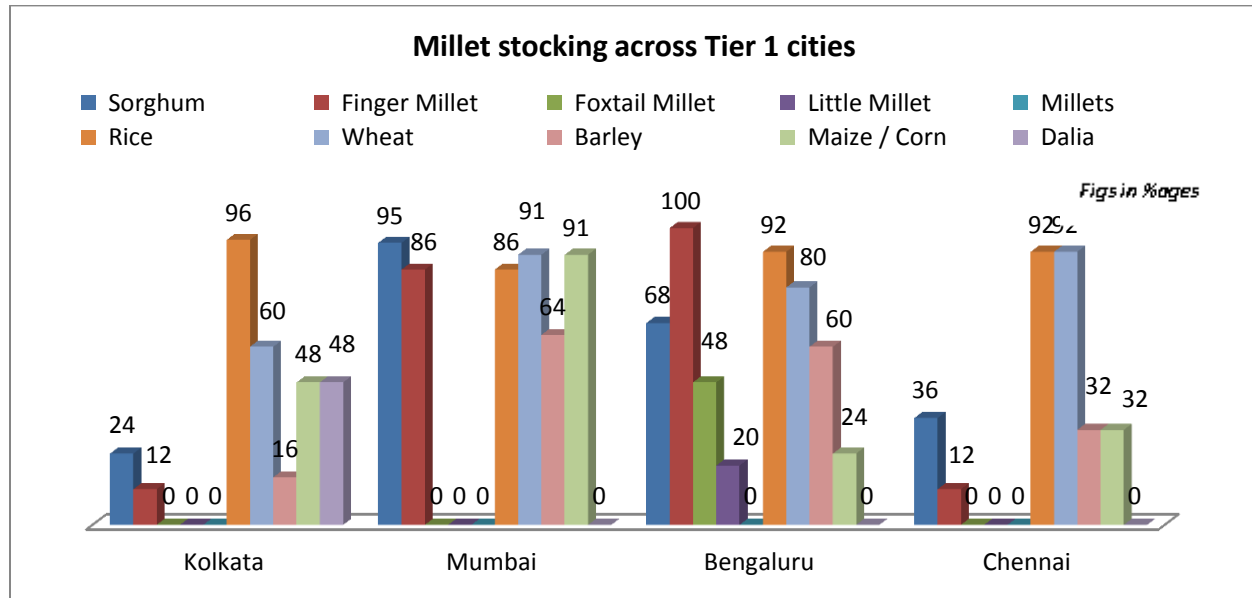
Retailers Section



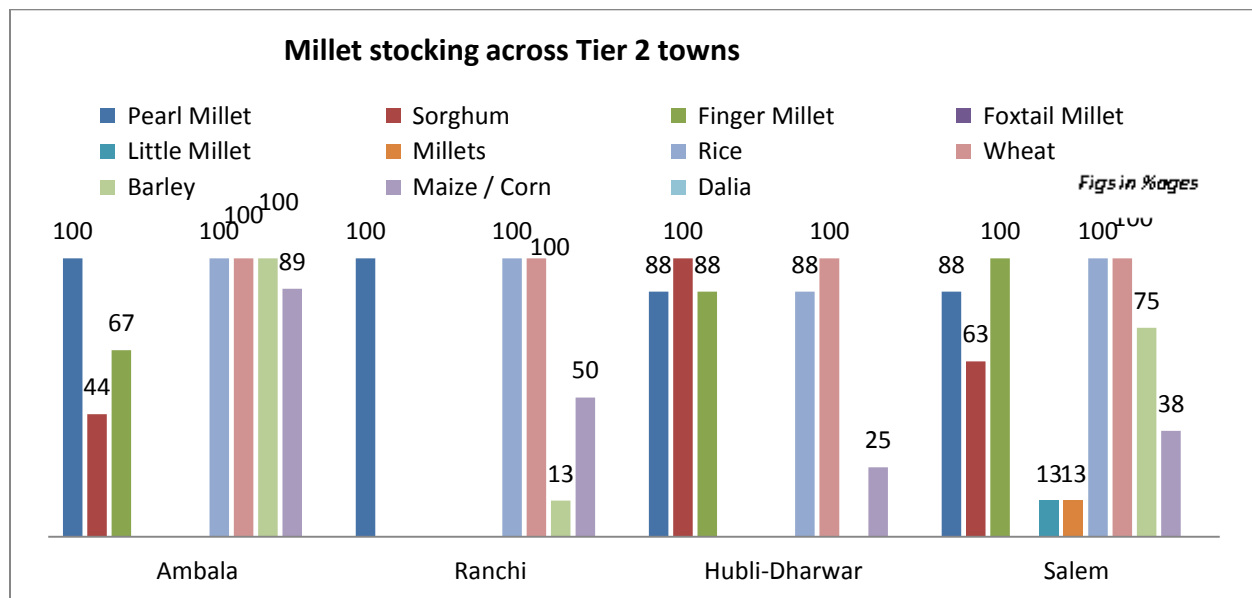
Except for Rice, Wheat and Pearl Millet other grains were stocked by very few Traders / Retailers. Though Pearl Millet appears to be on par with Rice and Wheat, the reality isn't so since the category of Wheat has expanded in a big way in the form of ground wheat (Branded) across all the markets.

Wheat, by far is the highest selling amongst all grains.

Among the Millets, Pearl Millet (Bajra) appeared to be the most popular followed by Sorghum (Jowar) and Finger Millet.

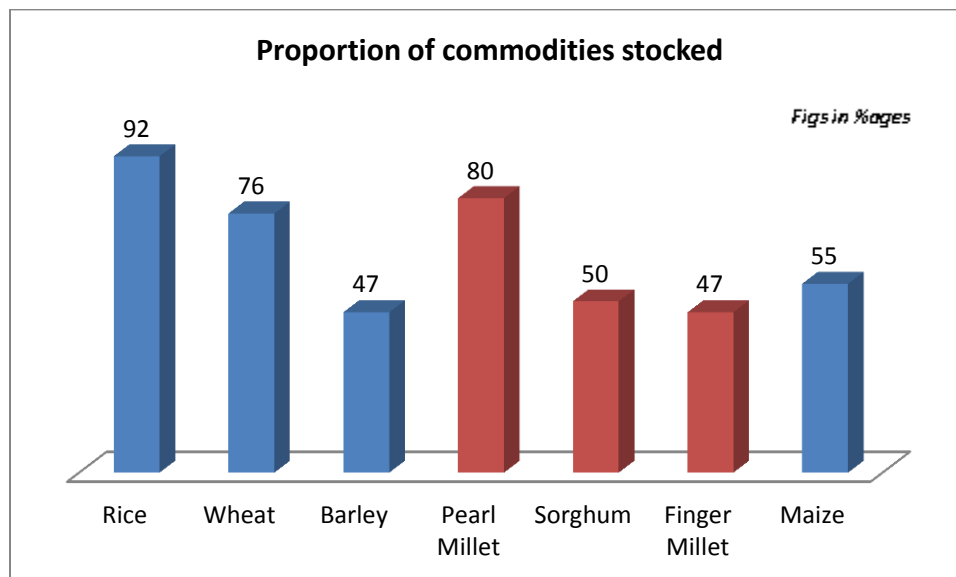


City wise, the popularity of Millet differed slightly. In Tier 1 cities, Sorghum and Finger Millet appeared to be more popular in Mumbai and Bengaluru. Foxtail Millet appeared to be quiet popular in Bengaluru.

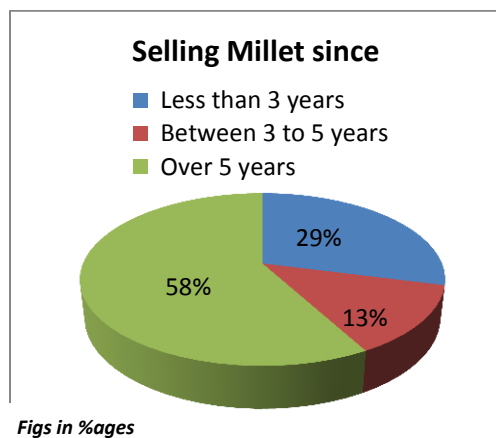


In Tier 2 towns, Pearl Millet was the most popular one across all the four zones. Sorghum and Finger Millet were the 2 types of Millet which was used across the three zones of North, West and South.

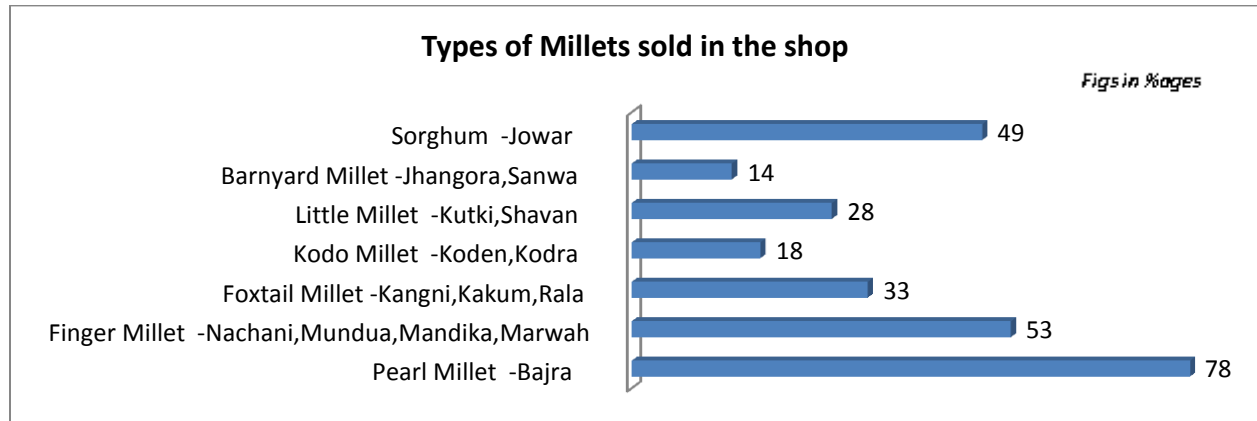
In the East, it was only Pearl Millet.



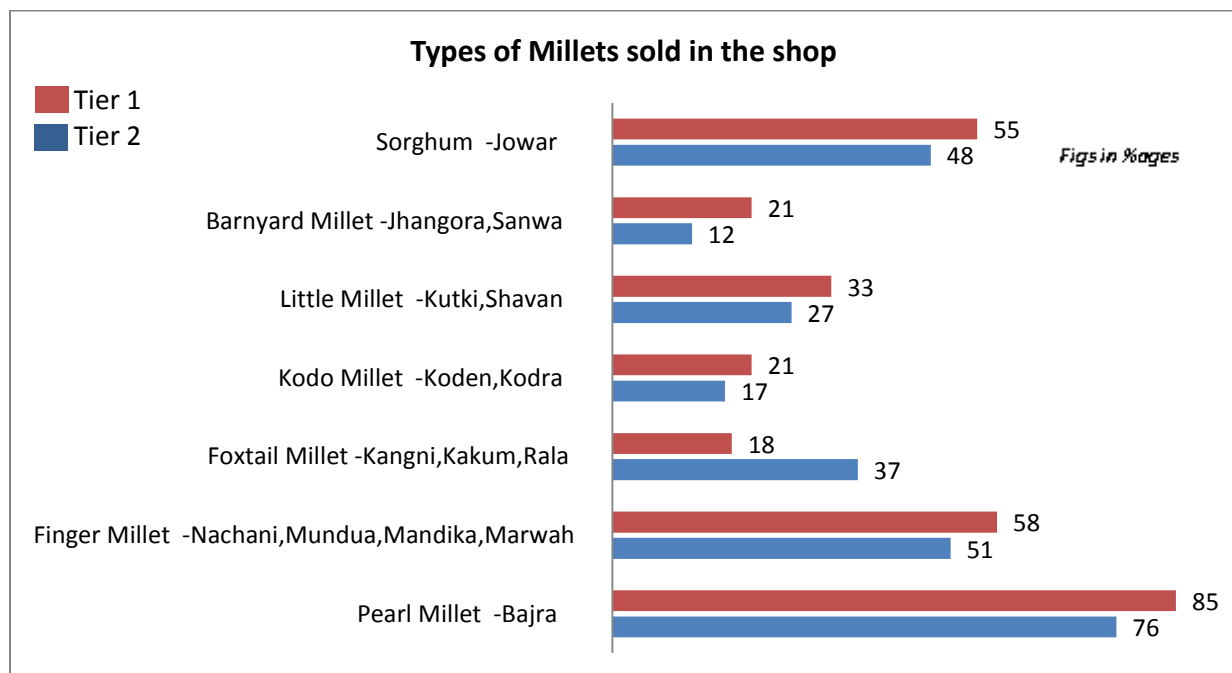
Except for Rice and Wheat, every other grain sold very little in comparison. 34% of the shops claimed selling Wheat which constituted 31-40% of the total sale of grains. In case of Rice it was 27% who said the sales constituted 31-40%. In the case of Millet the overall proportion of sales was between 1-10% of the total.



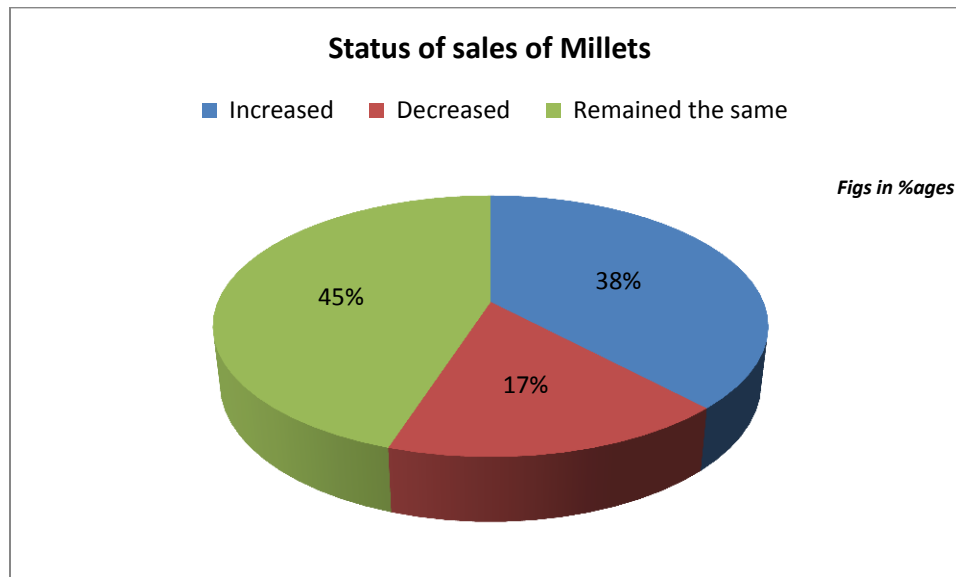
A little over a half (58%) of the shops claimed selling Millet over 5 years. Selling Millet was found to be much older in the Tier 1 cities than Tier 2 cities (60% and 52% respectively). Millet selling was found to be more recent in the cities of Kolkata and Ranchi compared to others.



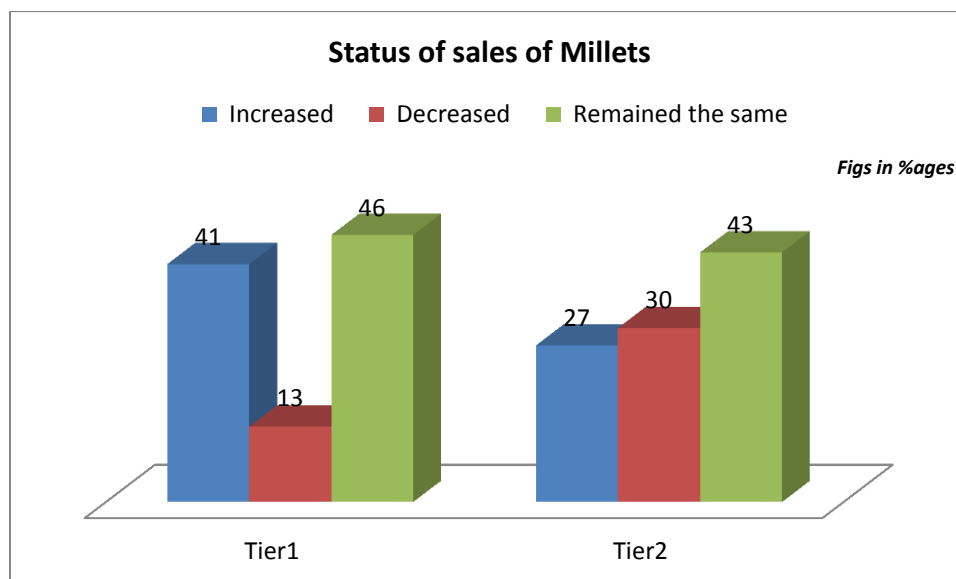
Pearl Millet was the most popular among all types of Millet followed by Finger Millet and Sorghum. These three were the main Millet which was sold across the country. The next popular Millet in line were Foxtail Millet and Little Millet. The least popular ones were Kodo Millet and Barnyard Millet.



Except for Foxtail Millet, every other type of Millet sold more in Tier 1 cities than Tier 2 towns.



A little over a third of the shops agreed that the sales of Millet have increased over the past. 17% said the sales had gone down and 45% said that the sales remained the same – no change.

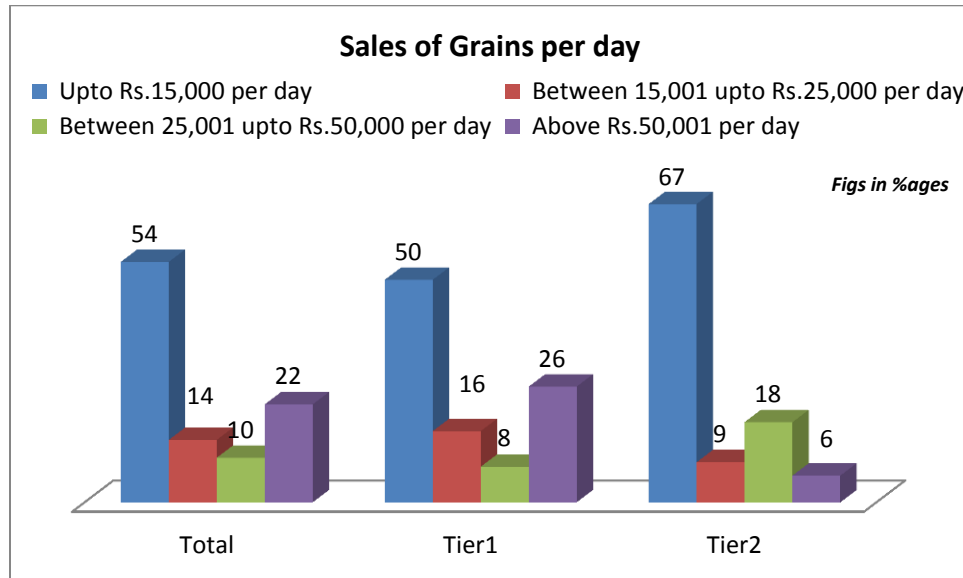


Main increase noticeable was in Tier 1 cities. Compared to Tier 2 the jump was significantly high. It was the Tier 2 towns where the sales got affected.

Overall, the consumers of Millet are from various localities around town/city. There is no particular locality where the consumption is higher. The consumption appears to be done most in Middle Class / Upper Middle Class households mostly (68%). The consumption is also there among the poorer class of households. Basically spread across SEC A, B and C households. The Main earner's occupation of Millet consuming households appeared to be mixed from Skilled workers at the lowest level to the Professionals at the highest. Among businessmen households, consumption appeared to be a little

less. Most Millet consuming households appeared to be from educated households. Main purpose for consuming Millet was for Occasional preparations and for Healthier living.

Type of shops selected for the study



Thank you.