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"A Survey Based Study on Prevailing Traditional and New Technologies in Rural Market"

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ABSTRACT

Aim: Fruits and vegetables are considered as protective food. They are enriched with plenty of Vitamin's minerals and fibers which provides several health benefits. They are classified as perishable food because their shelf life is about 3 to 5 days. There are number of technologies that helps to delay rottening. This survey-based study aims to find out the awareness of conventional and the new technologies in the rural people for preservation of fruits and vegetables and their usage.

Methods: A semi structured questionnaire prepared and distributed to the farmers at Bakshi ka Talab local market, Lucknow. It contained the questions related to socio-demographic status of the farmers, Fruits and vegetable production and storage, general methods for preservation and related technologies used by them.

Result: After conducting this study negative mean and std mean 10% was found.

Conclusion: this study concluded that the well -being of using method for increasing self-life of fruits and vegetables by cold storage cold storage are very high costly storage. My suggestion is used low-cost method Zero Energy Cool Chamber of fruits and vegetables to improve their value chains. A range of precooling

and cold storage methods, their suitability, energy demands and the constraints on storage and distribution are discussed and recommendations are made on how to improve their accessibility for small-scale.

KEY WORDS: - Zero energy cool chamber (ZECC), New technology and old technology, fruits and vegetable increase self-life, fruits and vegetable control wastage, processing of F&V.

INTRODUCTION

Fruit and vegetables should be an important part of your daily diet. They are naturally good and contain vitamins and minerals that can help to keep you healthy. They can also help protect against some diseases**.** Fruits and vegetables are known to be protective foods because they contain high amounts of vitamins and minerals that help maintain good health. A diet rich in vegetables and fruits can lower blood pressure, reduce the risk of heart disease and stroke, prevent some types of cancer, reduce the risk of eye and digestive problems, and have a positive effect on blood sugar. Can have a positive effect, which can help keep appetite down. Fruits and vegetables contain important vitamins, minerals and plant chemicals Fruits and vegetables contain many vitamins and minerals that are good for your health.Manyofthese are antioxidants, and may reduce the risk of many diseases:

(Hoy and Goldman Citation2014). Fruits and vegetables are low in fat, salt and sugar. They are a good source of dietary fiber, which can make you feel fuller for longer and prevent overconsumption of food. As part of a well-balanced, healthy diet and an active lifestyle, a high intake of fruit and vegetables can help you to reduce obesity and maintain a weight. F&V intake accounts for 28% of the U.S. population's dietary fiber intake.

(**B Senthuran et al 2023)** Fruit and Vegetable Storing fresh fruits and vegetables extends their usefulness and, in some cases, improves their quality; It also controls the glut of the market. The main goals of storage are to control the rate of transpiration, respiration, disease and pest infestation, and to preserve the commodity in its most useful form for the consumer. **Published in: 2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS).**

(Gustavsson et al., 2011; REFED, 2016). Fruits and vegetable wastage % Out of the different proportions of food materials wasted, fruits and vegetable waste constitute a significant proportion (42%) of the waste produced. These wastes are generally disposed of in landfills as they are relatively cheap to form methane as the primary product. Although methane could be used to generate fuel, the greenhouse gas has a global warming potential that is 25 times greater than that of CO_2 (**Cantera et al., 2018; Kumar, 2013).**

(Farooq A Khan et al.2018) Storage methods use in market farmer Storage using evaporative coolers, Natural ventilation, sun drying, dehydration, Zero Energy Cool Chambers (ZECC) Zero Energy Cool Chamber (ZECC) Based on the principles of direct evaporative cooling zero energy cool chambers (ZECC) have been developed. The main advantage of this on-farm low-cost cooling technology is it does not require any electricity or power to operate and materials required to construct this like bricks, sand bamboo,

etc. available easily and cheaply, ZECC can reduce temperature by 10-15°C and maintain high humidity of about 95% that can increase shelf life and retain quality of horticultural produce. Small and marginal farmers can store a few days harvest to avoid middle men. National Horticulture Board I giving 100% grant in aid for the benefit of the farmers. **(Maurizio D'Auria 2021)** The shelf life of food products refers to the period for which they can be used while maintaining food quality. External factors, such as the gaseous environment, storage temperature, and relative humidity, together with the intrinsic properties of food, determine the shelf stability and spoilage of food., Temperature is an important factor influencing PPO catalytic activity **(Yuruk and Marshall, 2003)**

The purpose of the study to know about the traditional and new technology useful for the preservation of Fruits and vegetables by farmers. It confirms the potential of reducing fruit and vegetables waste using appropriate methods of preservation. This will also result in reduction of waste material, reusing it for beneficial purpose in an economical and environmentally friendly manner.

2. Material and methods: -

2.1 Selection of subject

For selecting the respondents multistage random sampling was utilized. For the present study 15respondents were randomly selected from rural market of Lucknow city, out of which 15were male. The respondent for the study were chosen from two different locations of Lucknow city. The sample consists of 15 respondents.

2.2 Data Collection

For data collection we utilized three tools, firstly a self-made socio demographic questionnaire for assessing demographic details of respondent. I believe the first thing to consider before making the questions is to find out the format of the questions, and then we should learn the order of the questions arranged in the questionnaire which will give maximum results. For the format of the questions, there are two basic types: open-ended questions and closed-ended questions. while in closed-ended questions answers are provided for the participants to choose **(2000, 29**). open-ended questions are they permit us to obtain unanticipated answers and they are closely the real views of the respondents; Individual market survey questionnaire was used to collect data on consumption of vegetables and fruits identified under Section and use technology for increase self-life. The questionnaire was structured to collect data on amounts produced, amounts consumed, frequency with which they were consumed, duration over which they were consumed, and overall consumption in a year, clearly segregated by duration for which fresh or preserved forms were consumed. In addition, provision was provided for information on household composition by number, age, physiological state, and gender Actual data collection took place in **Rural market march in 2023. Using** four research assistants that were trained on individual household method

(IHM) for food security. During data collection, a food weighing scale was used to provide accurate estimate of the quantities of vegetables consumed in each household. For collecting data interview and survey method were used.

2.3 Statistical Analysis:

IBM SPSS Statistics version 20. software was used for statistical analysis. The degree of Prevailing Traditional and New Technologies in Rural Market determined with the help of frequency percentage, mean, standard deviation and the significance of test using t-test and ANOVA.

Result and Discussion: -

Table 1: Socio-demographic details of the respondents (in frequency & percentage)

Education	No of Respondents	Percent (%)
illiterate	6	40.0
just illiterate	2	13.3
junior	3	20.0
higher	4	26.7
Total	15	100.0

The above given Table 1 Summarizes Farmers' socio- demographic information. Out of 15respondent's male. The 50% participants were from Bakshi ka talab market and 50% from Navin mandi Puraniya. There are 6 (40.0 percent) respondents from illiterate and 2 (13.3% respondents) from just illiterate. and 3 (20.0% respondent) from juniors. and 4(26.7percent %) higher education the majority of respondent. The majority of respondent high illiterate.

Figure1.1 Showing the education background of the respondents.

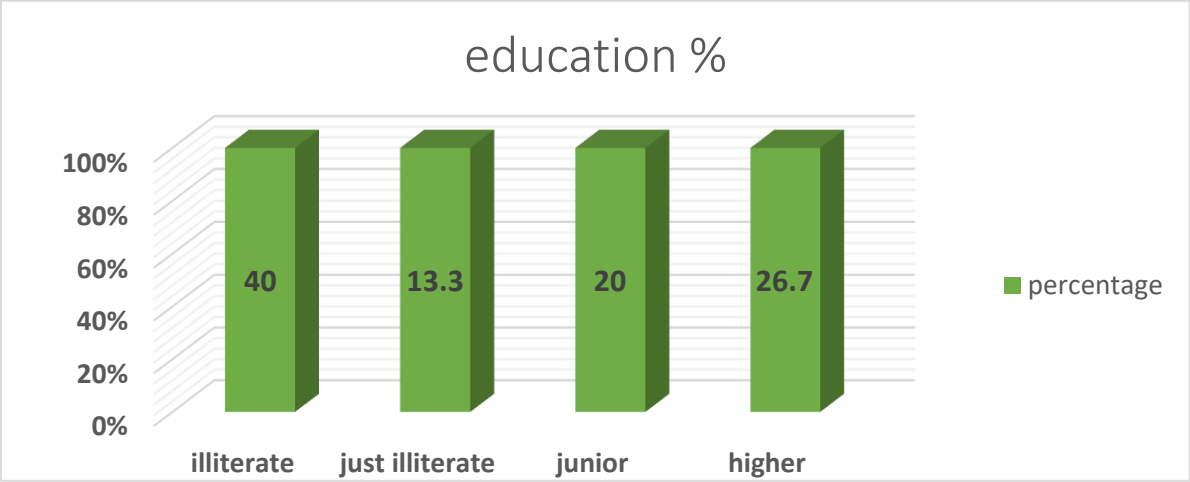


Fig. 1.1 showing the education background of the respondent i.e., 40 % illiterate and 13.3%just illiterate and 20% junior and 26.7% higher education farmer present in market.

Table 2: Socio-demographic details of the respondents (in frequency & percentage)

Monthly income

Monthly income	No of respondent	Percent (%)
Low	7	47.0
Medium	6	40.0
High	2	13.3
Total	15	100.0

The above given Table 2 Summarizes Farmers' socio- demographic information. Out of 15respondent's male. The 50% participants were from Bakshi ka talab market and 50% from Navin mandi Puraniya. There are 7(47.0 percent) respondents' low-income group and 6 (40.0% respondents) medium income group and2 (13.3% respondent) high income group. High majority percent of low-income group farmer present in rural market.

Figure1.2 showing the Monthly income background of the respondents.

As the above figure shows out of 47%low and 40%medium and 13.3% high income group farmer present in market.

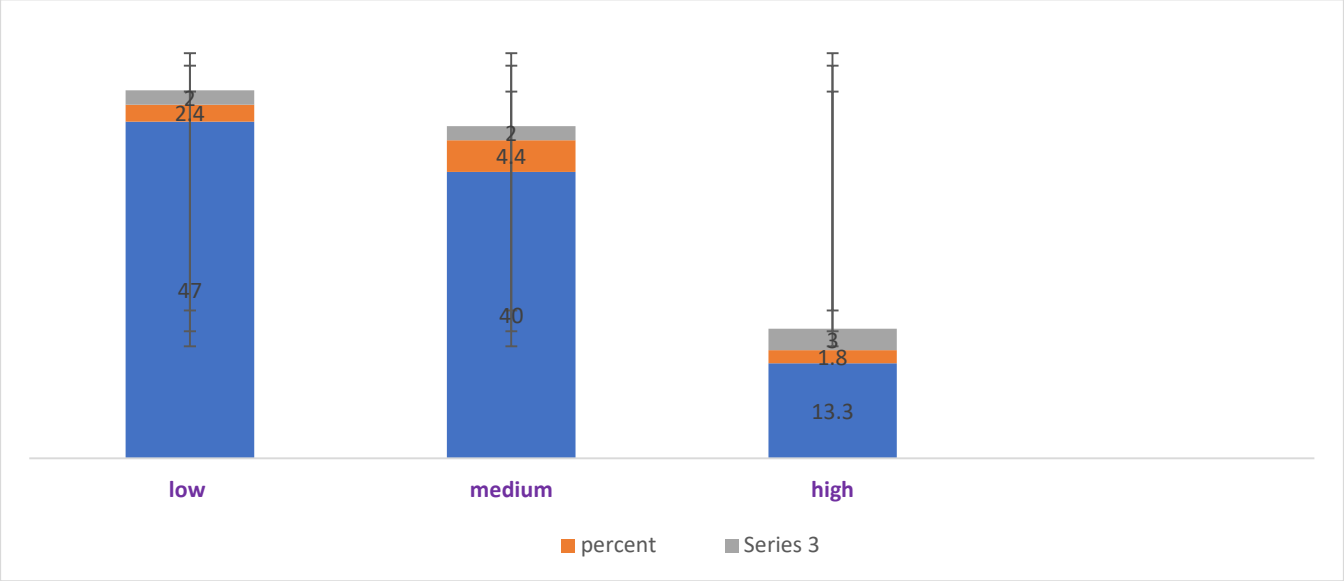
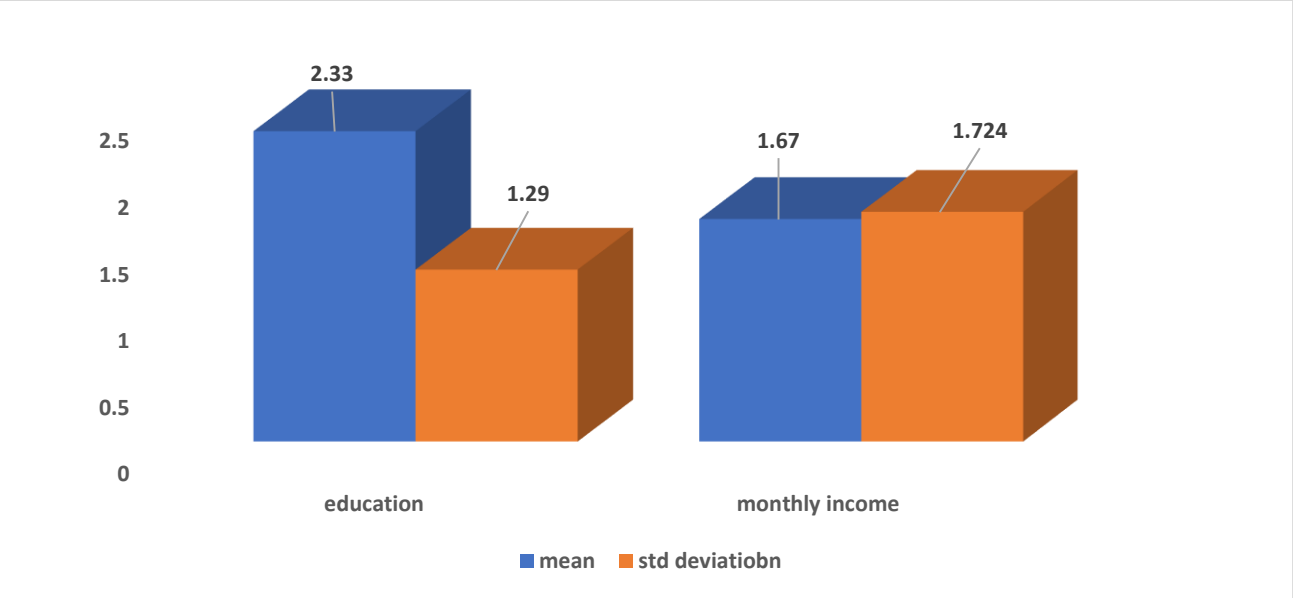


Table 3: Showing Mean and std. Deviation mean of farmer education and farmer monthly income

Comparison means and std. mean	Your Education	Farmer Monthly Income
N	15	15
Mean	2.33	1.67
Std. Deviation	1.291	.724

The above table 3: summaries' mean and std Deviation mean of education 2.33 mean and std deviation mean 1.291 and farmer income mean 1.67 mean and std Deviation mean .724. compare mean farmer monthly income and farmer education. After compare highest mean of education.

Figure 1.3: Mean and std. Deviation mean of farmer education and farmer monthly Income



The above fig 3.1: summaries' mean and std Deviation mean of education 2.33 mean and std deviation mean 1.291 and farmer income mean 1.67 mean and std Deviation mean .724. compare mean farmer monthly income and farmer education. After compare highest mean of education.

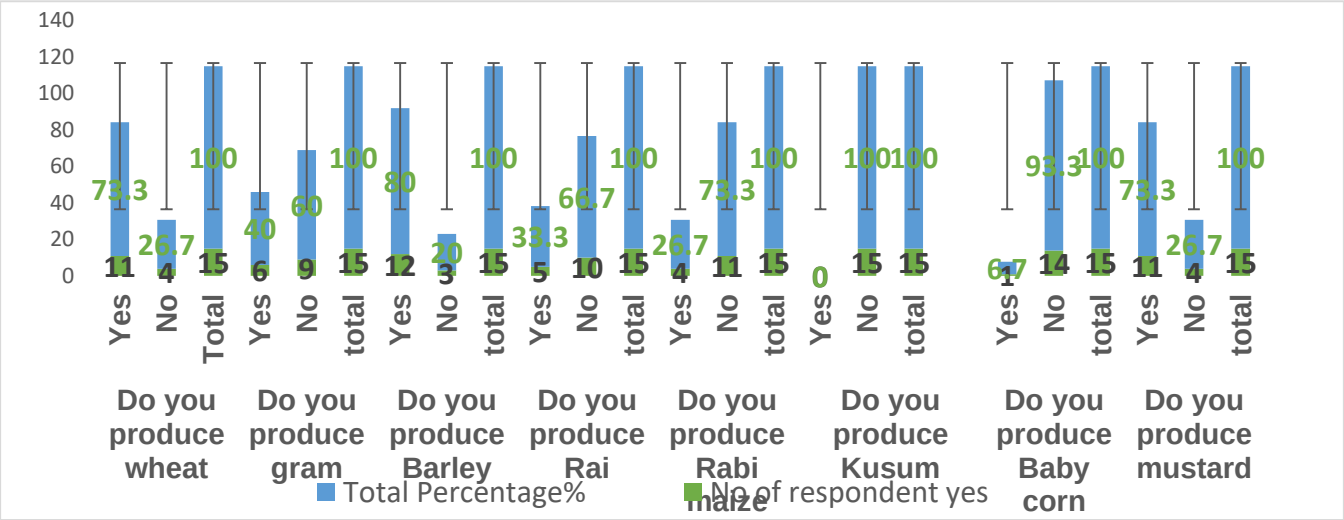
Table 4: Cereals production by farmer details of the respondents (in frequency & percentage)

Sr. No.	Cereals production by farmer	Category	No of respondent yes	Total Percentage%
1	Do you produce wheat	Yes No Total	11 4 15	73.3 26.7 100.0
2	Do you produce gram	Yes No total	6 9 15	40.0 60.0 100.0
3	Do you produce Barley	Yes No total	12 3 15	80.0 20.0 100.0
4	Do you produce Rai	Yes No total	5 10 15	33.3 66.7 100
5	Do you produce Rabi maize	Yes No total	4 11 15	26.7 73.3 100.0
6	Do you produce Kusum	Yes No total	0 15 15	0 100.0 100.0
7	Do you produce Baby corn maize	Yes No total	1 14 15	6.7 93.3 100.0
8	Do you produce mustard	Yes No total	11 4 15	73.3 26.7 100.0

The above given table 4: summarizes Cereal's production information. the majority of the respondent is 11 (73.3 %) growing wheat and 4(26.7%) are no growing wheat. the majority of the respondent is 6(40.0%) growing gram and 9(60%) are no growing gram and the majority of the respondent is 12(80.0%) growing barley and 3(20.0%) are not growing barley the majority of the respondent is 5 (33.3%) growing rai and

10(66.7%) are no growing rai. the majority of the respondent is4 (26.7%0 growing the rabi maize and 11(73.3%) are no growing of the rabi maize. The majority of the respondent is 0(100.0%) are no growing Kusum. The majority of the respondent is1(6.7%) growing baby corn maize and 14(93.3%) Are not b growing baby corn maize. The majority of the respondent is11 (73.3%) growing mustard crop and (26.7%) are no growing mustard crop.

Figure 1.4: Showing the cereals production by farmer (frequency% and no respondent)



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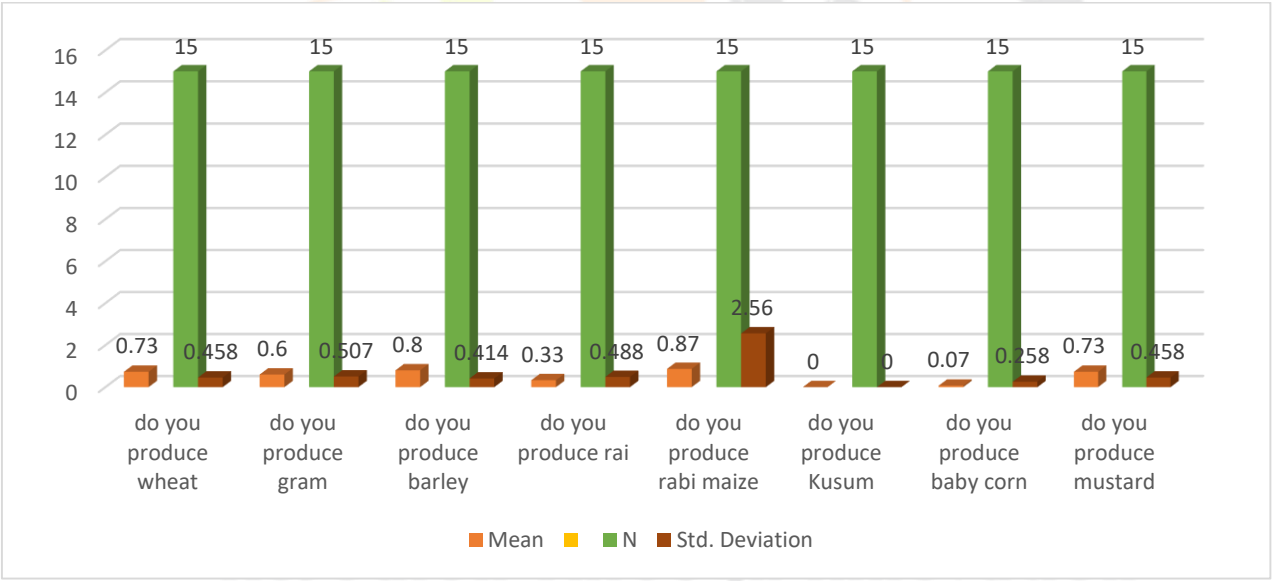
The above given Fig.1.4: summarizes Cereal's production information. The majority of the respondent is 11 (73.3 %) yes and 4(26.7%) are no. The majority of the respondent is 6(40.0%) YES and 9(60%) no and the majority of the respondent is 12(80.0%) growing barley and 3(20.0%) are no growing barley the majority of the respondent is 5 (33.3%) growing rai and 10(66.7%) are no growing rai. the majority of the respondent is4 (26.7%0 growing the rabi maize and 11(73.3%) are no growing of the rabi maize. The majority of the respondent is 0(100.0%) are no growing Kusum. The majority of the respondent is1(6.7%) growing baby corn maize and 14(93.3%) Are not b growing baby corn maize. The majority of the respondent is11 (73.3%) growing mustard crop and (26.7%) are no growing mustard crop

Table 5: Showing Mean and std. Deviation mean of cereals production by farmer

Category	do you produce wheat	do you produce gram	do you produce barley	do you produce rai	do you produce rabi maize	do you produce Kusum	do you produce baby corn	do you produce mustard
Mean	0.73	0.60	0.80	.33	0.87	.00	.07	.73
N	15	15	15	15	15	15	15	15
Std. Deviation	.458	.507	.414	.488	2.560	.000	.258	.458

Table 5: given the respondent data self-production of cereals crop mean wheat .73%, gram .60, barley .80%, rai .33%, rai. Rabi maize 87%. Kusum 00% baby corn 07%, mustard .73%. Std deviation mean wheat .458% gram .507%, barley ,414%, rai .33%, rabi maize .87%, Kusum .00 %, baby corn maize .07%, mustard .73%.

Figure 1.5: Mean and std. Deviation mean of cereals production by farmer



Above Figure 1.5: given the respondent data self-production of cereals crop mean wheat .73%, gram .60, barley .80%, rai .33%, rai. Rabi maize 87%. Kusum 00% baby corn 07%, mustard .73%. Std deviation mean wheat .458% gram .507%, barley ,414%, rai .33%, rabi maize .87%, Kusum .00 %, baby corn maize .07%, mustard .73%.

Table 6: Showing Mean and std. Deviation mean of Fruits production by farmer

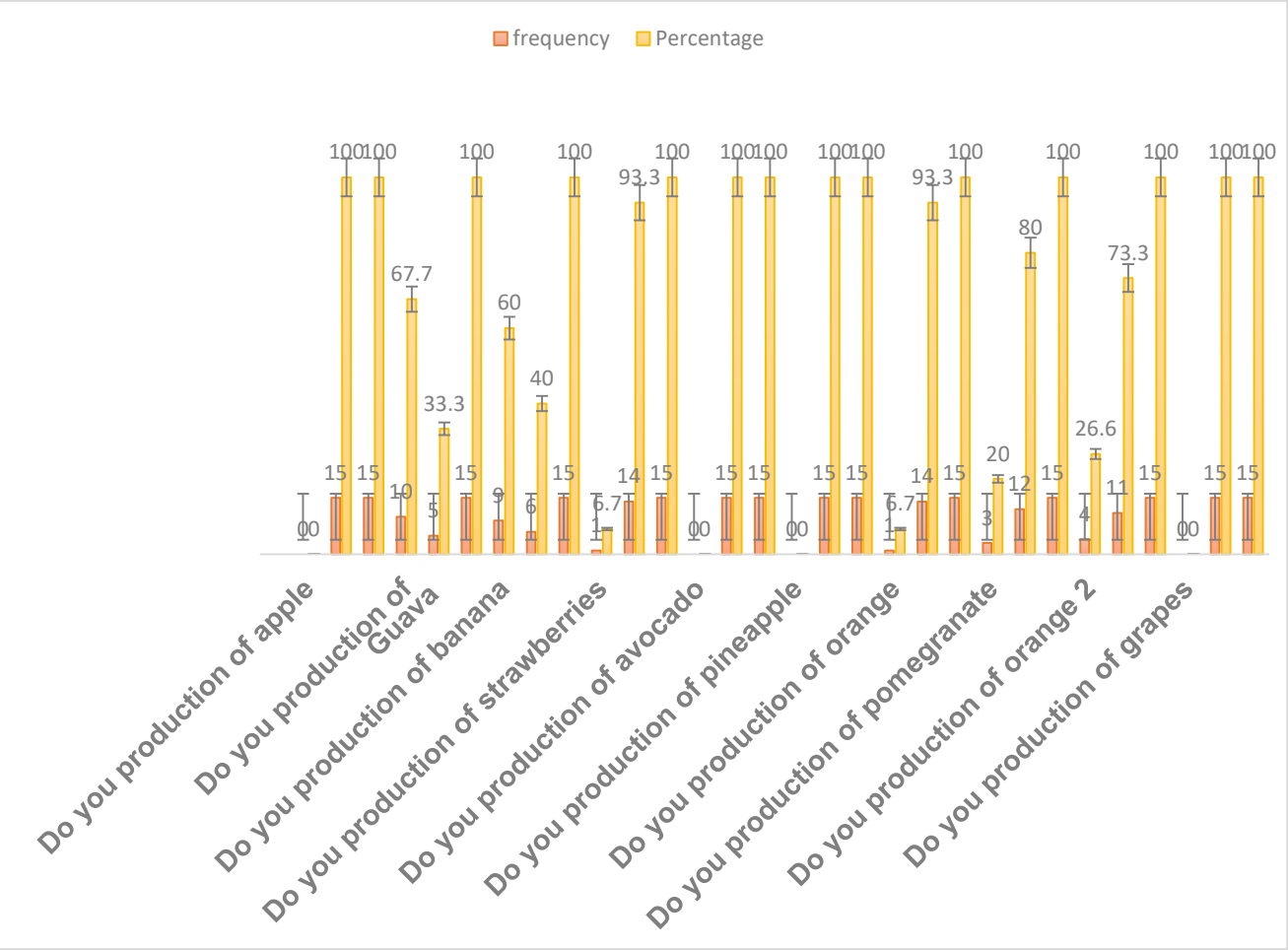
	Do you produce avocado	do you produce apple	do you produce guava	do you produce banana	do you produce pine apple	Do you produce strawberries	Do you produce orange	do you produce pomegranate	do you produce orange 2	Do you produce grapes
Mean	.00	.00	.67	.60	.00	.07	.20	.20	.27	.00
N	15	15	15	15	15	15	15	15	15	15
Std. Deviation	.000	.000	.488	.507	.000	.258	.258	.414	.458	.000

T**able 6:** given the respondent data self-production of fruits crop mean avocado .00%, apple.00, guava.67 %, banana .60 %, Pine apple 00 %. strawberries .07 % orange 20%, pomegranate .20%, orange2 .27 % grapes .00%. Std deviation mean avocado .000% apple .000 guava .488% banana .507%, pineapple .000 %, Strawberries 258%, orange .258%, pomegranate .414 orange 2 .458 %, grapes .000%.

Fig 1. 6: Showing Mean and std. Deviation mean of Fruits production by farmer

Above Fig 1. 6: given the respondent data *Showing Mean and std. Deviation mean of Fruits production by farmer* avocado .00%, apple.00, guava.67 %, banana .60 %, Pine apple 00 %. strawberries .07 % orange 20%, pomegranate .20, orange2 .27 % grapes .00%. Std deviation mean avocado .000% apple .000 guava .488% banana .507%, pineapple .000 %, Strawberries 258%, orange .258%, pomegranate .414 orange 2 .458 %, grapes .000%.

Figure 1.6 showing the Fruits production by farmer (frequency% and no respondent)



The above given Fig.1.6: summarizes Fruit's production information. The majority of the respondent is apple production 0(00 %) and guava production 10 (67.7%) yes and 5(33.3%) are no. The majority of the respondent is banana production YES 9(60%) and 6(40.0%) NO and the majority of the respondent is 1(6.7 %) growing strawberries YES and 14 NO (93.3%) are no growing and Avocado production 0 (0.00%) pineapple 0(00.0%). The majority of the respondent is production orange 1 (6.7%) yes and 14 (93.9%) NO growing and pomegranate 3(20.0%) YES and are no growing 12 (80.0 and orange 2 producing yes 4(73.3%), NO producing 11(73.3%) grapes are producing 0 (00.0%)

Table 7 & 8: Fruits and vegetable production by farmer details of the respondents (in frequency & percentage)

S. No	Fruits production	Category	frequency	Percentage
1	Do you production of apple	Yes No Total	0 15 15	0 100.0 100.0
2	Do you production of Guava	Yes No Total	10 5 15	67.7 33.3 100.0
3	Do you production of banana	Yes No Total	9 6 15	60.0 40.0 100.0
4	Do you production of strawberries	Yes No Total	1 14 15	6.7 93.3 100.0
5	Do you production of avocado	Yes No Total	0 15 15	0.00 100.0 100.0
6	Do you production of pineapple	Yes No Total	0 15 15	0.00 100.0 100.0
7	Do you production of orange	Yes No Total	1 14 15	6.7 93.3 100.0
8	Do you production of pomegranate	Yes No Total	3 12 15	20.0 80.0 100.0
9	Do you production of orange 2	Yes No Total	4 11 15	26.6 73.3 100.0
10	Do you production of grapes	Yes No Total	0 15 15	00.0 100.0 100.0
S. No	Vegetable production	Category	frequency	Percentage

1	Do you production of potato	Yes No Total	11 4 15	73.3 26.7 100.0
2	Do you production of spinach	Yes No Total	0 15 15	0.000 100.0 100.0
3	Do you production of tomato	Yes No Total	12 3 15	80.0 20.0 100.0
4	Do you production of cabbage	Yes No Total	0 15 15	0.00 100.0 100.0
5	Do you production of onion	Yes No Total	12 3 15	80.0 20.0 100.0
6	Do you production of broccoli	Yes No Total	1 14 15	6.7 93.3 100.0
7	Do you production of pea	Yes No Total	10 5 15	67.7 33.3 100.0
8	Do you production of pumpkin	Yes No Total	8 7 15	46.7 53.3 100.0
9	Do you production of cauliflower	Yes No Total	4 11 15	73.3 26.7 100.0
10	Do you production of bottle guard	Yes No Total	4 11 15	73.3 26.7 100.0

Fig. 1.8: Showing data where are buy grain, fruits and vegetables.

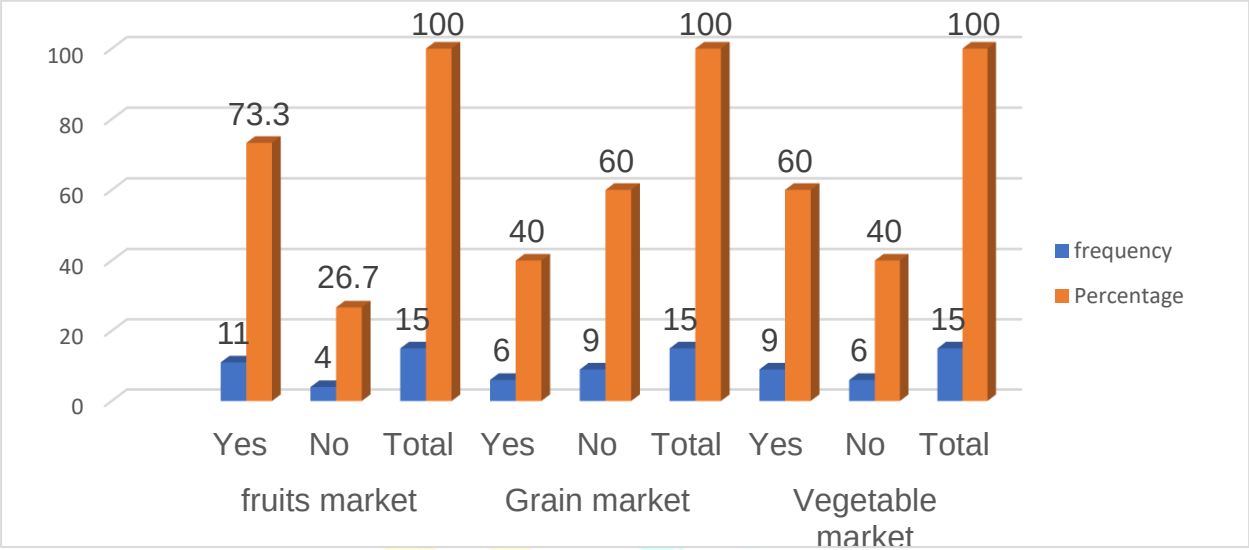


Fig 1.7 Respondent 15 and 11(73.3%) buy fruit fruits market YES and 4(26.7%) NO self-production. The majority of the presence buy grain market yes 6(40%), NO 9(60%) and vegetable buy the market yes 6(40%), NO 9(60%).

Table 9 preset where do you buy grains fruits and vegetable.

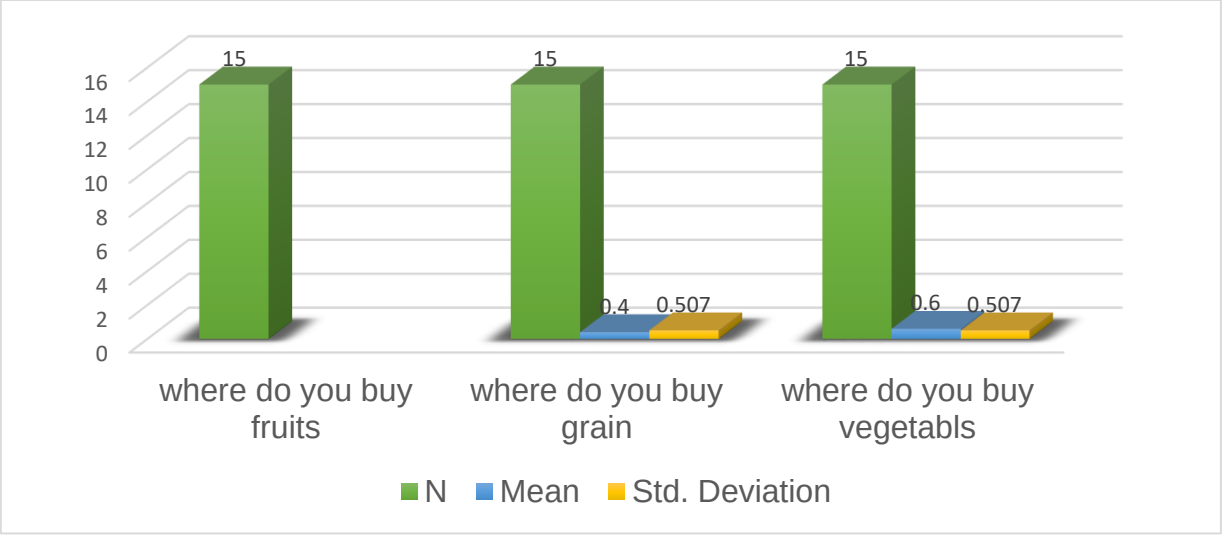
S. No	where do you buy fruits cereals, vegetables	Category	Frequency	Percentage
1	fruits market	Yes No Total	11 4 15	73.3 26.7 100.0
2	Grain market	Yes No Total	6 9 15	40.0 60.0 100.0
3	Vegetable market	Yes No Total	9 6 15	60.0 40.0 100.0

Comparison means and std deviation	where do you buy fruits	where do you buy grain	where do you buy vegetables
N	15	15	15
Mean		.40	.60
Std. Deviation		.507	.507

Table 10: represent mean and std deviation mean of where do you buy grain fruits and vegetables

Table 10: Respondent 15 mean and std deviation mean (fruit market .0% mean and std mean 0%). (Grain market mean and std mean .40&.507.). and (vegetable market mean &std mean. 60&507).

Fig. 1.9 showing mean and std deviation mean of where do you buy grain fruits and vegetables



Above showing fig.1.9 Respondent 15 mean and std deviation mean (fruit market .0% mean and std mean 0%). (Grain market mean and std mean .40&.507.). and (vegetable market mean &std mean. 60&507).

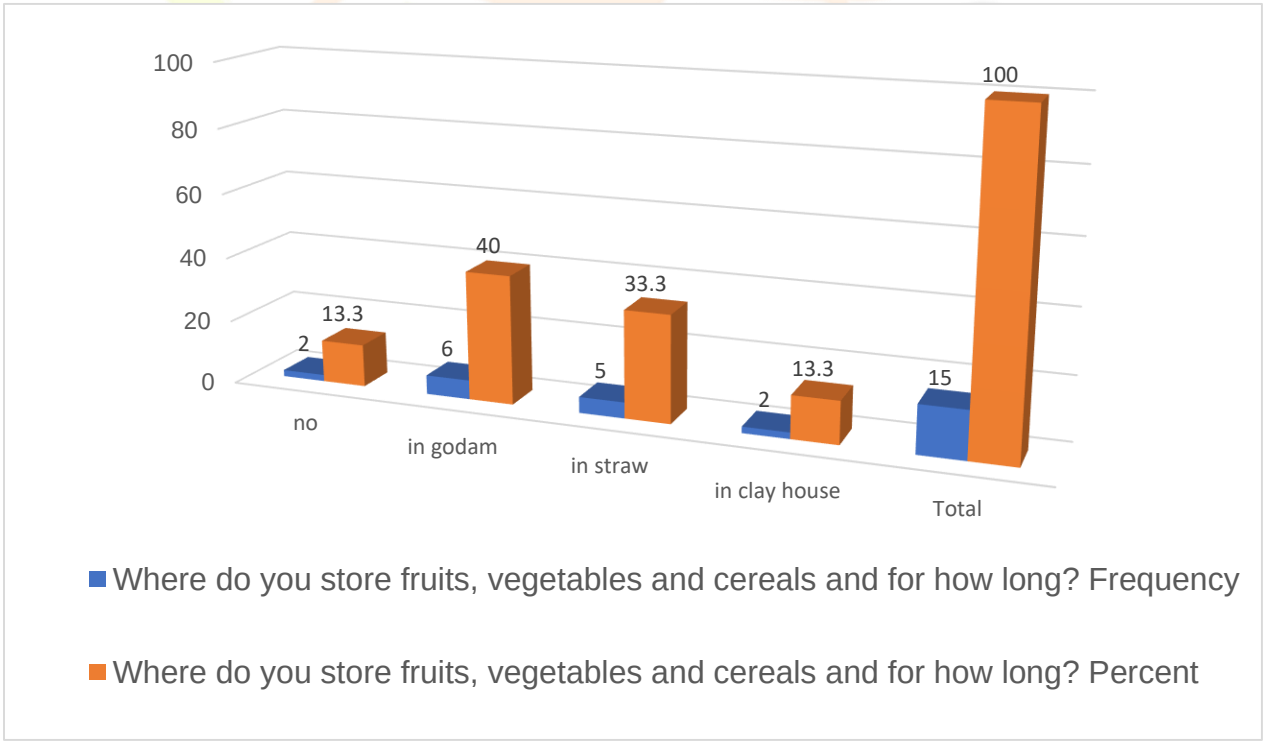
Table 11. Where do you store fruits, vegetables and cereals and for how long? (frequency & percentage)

Place	Frequency	Percent
no	**2**	**13.3**
in godam	**6**	**40.0**
in straw	**5**	**33.3**
in clay house	**2**	**13.3**
Total	**15**	**100.0**

Fig 1.10 Where do you store fruits, vegetables and cereals and for how long? (frequency & percentage)

Table 11. &Fig 1.10 Show the fruits and vegetable, cereals store place for how long These are store some farmer no storage2(13.3%) and in godam 6(40%), instraw5(33.3%) and 2(13.3%) in clay home

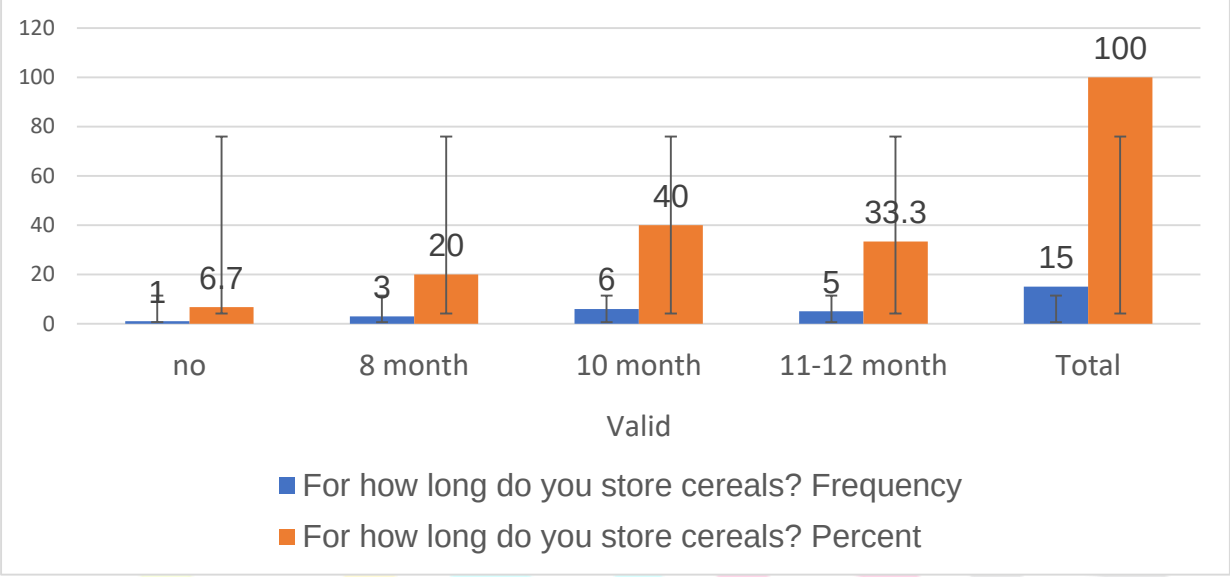
Table 12: showing the time storage for how long do you store cereals? (Frequency and percentage)



Store Time of cereals	Frequency	Percent
6 months	1	6.7
8 months	3	20.0
10 months	6	40.0
11-12 months	5	33.3
Total	15	100.0

The above given table 12 showing respondent 15. storage time 1(6.7%) for 6 month and 3(20.0%) for 8-month ,6(40.0%) 10-month 5(33.3%)11-12month.

Fig 1.11: For how long do you store cereals? (Frequency and percentage)



The above given fig 1.11showing respondent 15. storage time 1(6.7%) for 6 month and 3(20.0%) for 8-month ,6(40.0%) 10-month 5(33.3%)11-12month.

Table 13 showing How long do you storage place of fruits (Frequency percentage).

Place	Frequency	Percent
No	8	53.3
in home by aeration	3	20.0
mandi by boxes method	4	26.7
Total	15	100.0

Table 13 showing the storge place of fruits 15 respondents are use different place are store fruits. These are some farmers are no use storage 8(53.3%), in home by aeration method 3(20.0%) and some farmers are use storage place mandi by boxes method

Fig1.12: showing How long do you storage place of fruits (Frequency percentage

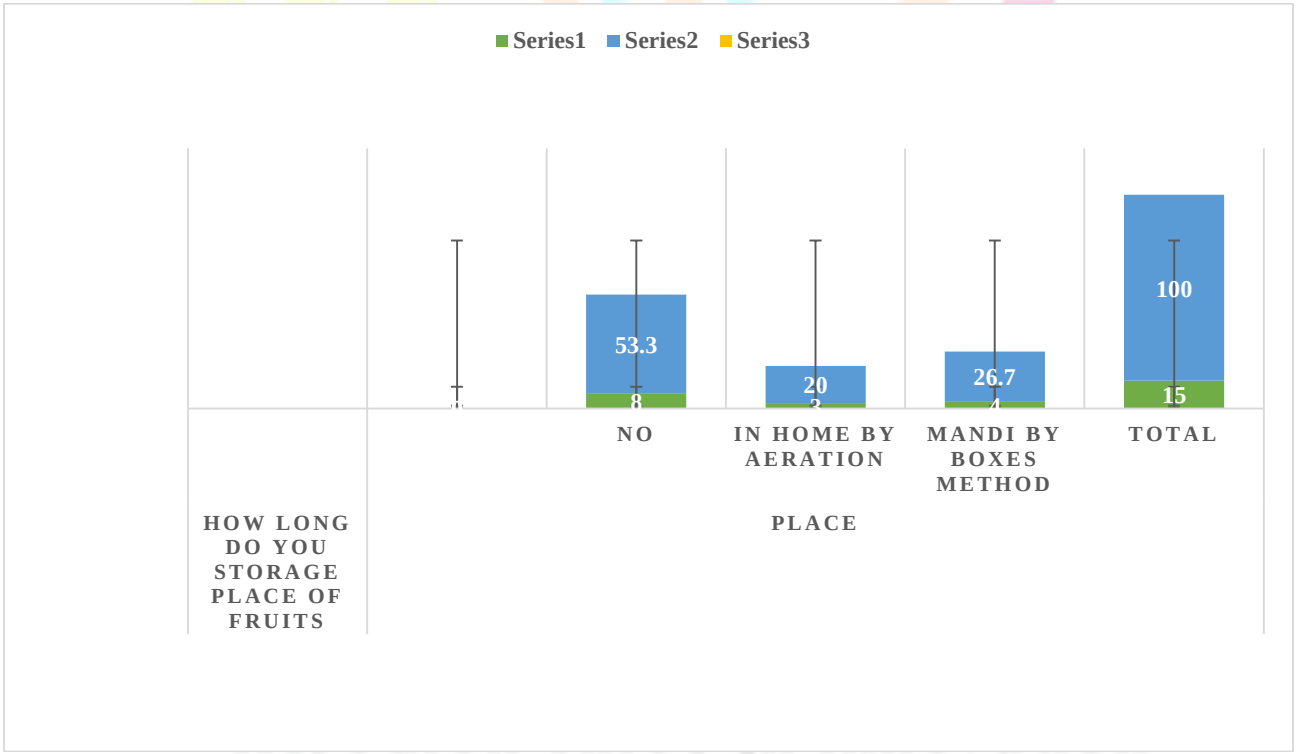


Table 14: Showing the fruits storage time (frequency & percentage)

Time		Frequency	Percent
Valid	no	8	53.3
	10 hrs.	1	6.7
	12 hrs.	3	20.0
	1week	3	20.0
	Total	15	100.0

The above given table 14 and fig. 1.13 showing fruits storage time. No of respondent 15. storage time 8(53.3%) no storage and 1 (6.7 %)10 hrs. And 3(20.0%) for 12 hrs. and 3(20. 0%) 1 week,

Fig.1.13fruits storage time

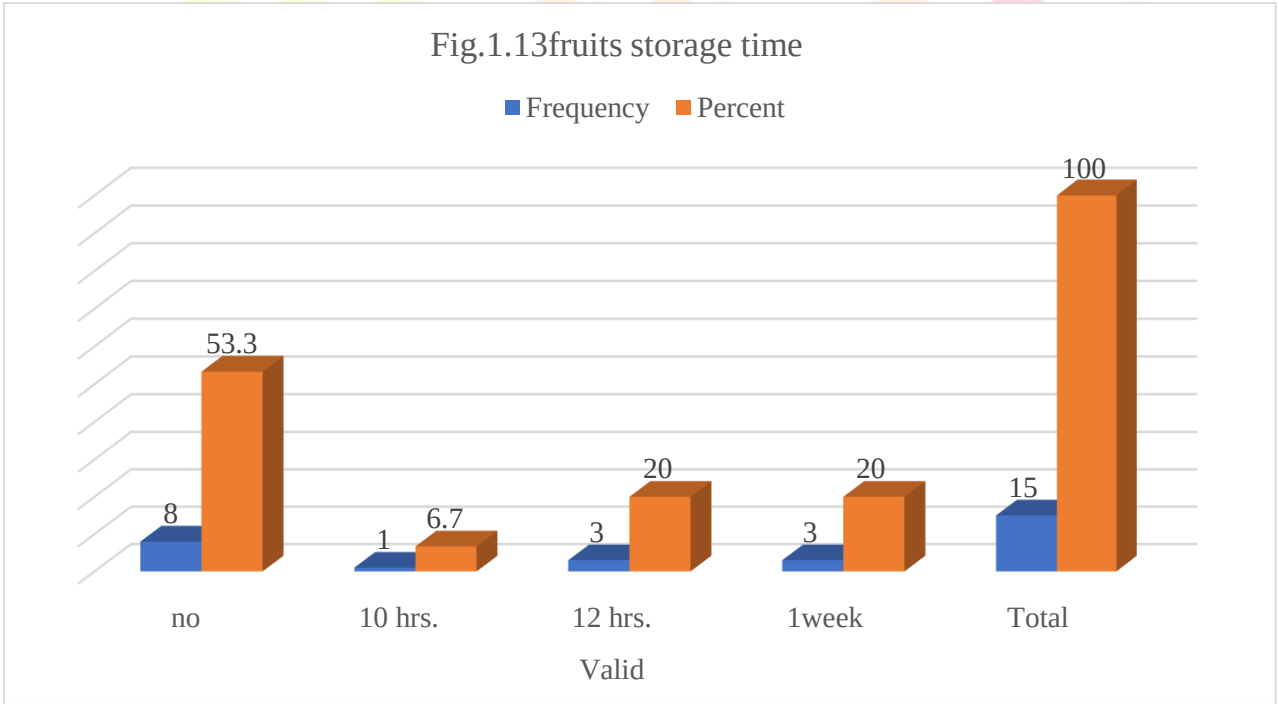
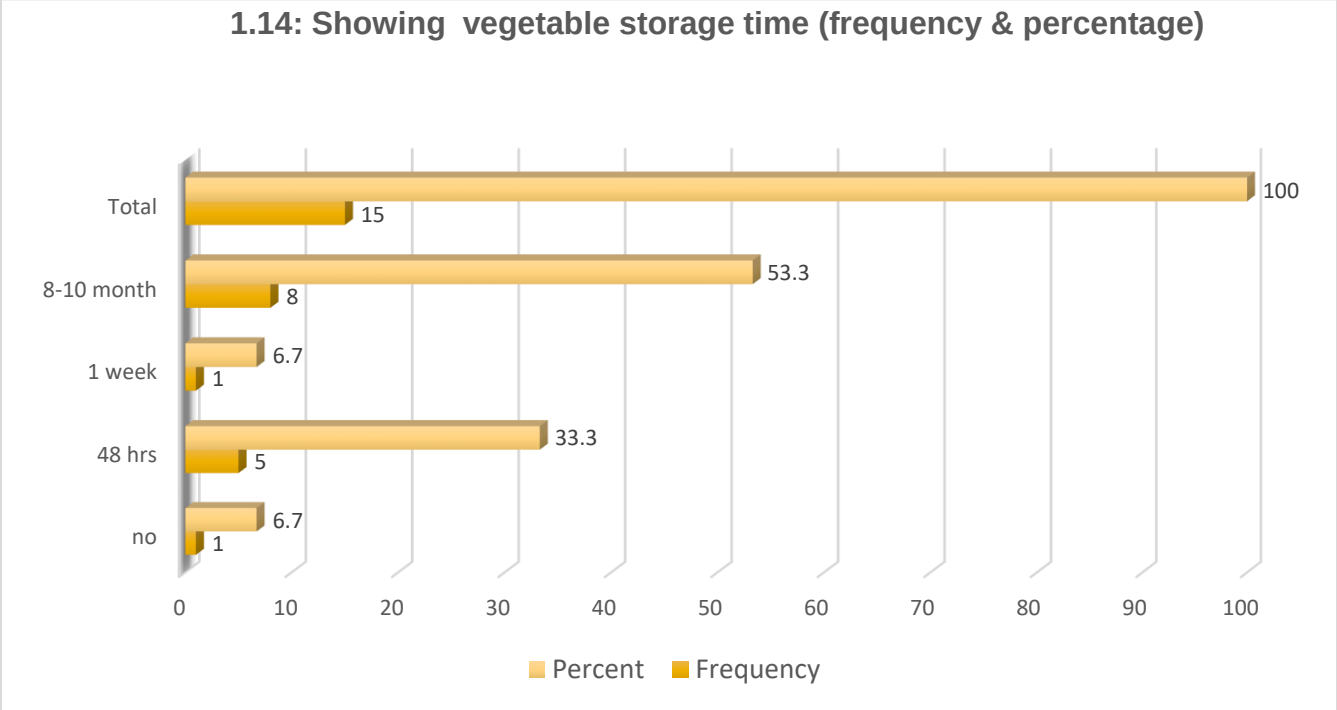


Table 15: vegetable storage time (frequency & percentage)

vegetables storage time		Frequency	Percent
	no	1	6.7
	48 hrs.	5	33.3
	1 week	1	6.7
	8-10 month	8	53.3
	Total	15	100.0



The above given table 15 and fig. 1.14 showing vegetable storage time. No of respondent 15. storage time 8(53.3%) 8–10-month storage and 1 (6.7 %)1 week. And 5(33.3%) for 48 hrs. 1(6.7%) no store vegetables

Table 16: how long do you storage place of vegetables (frequency & percentage)

Vegetable place storage		Frequency	Percent
	No	**1**	**6.7**
	cold storage in b k t	**9**	**60.0**
	plastic bags in home	**1**	**26.7**
	Gunny bags in clay pot	**4**	**6.7**
	Total	**15**	**100.0**

The above given table 16 show that vegetable storage place maximum i.e., no 1(6.7%), of the long-time store use cold storage in bkt 9(60.0%), and 1(6.7%), 4(26.7%), Gunny bags 4(26.7%)

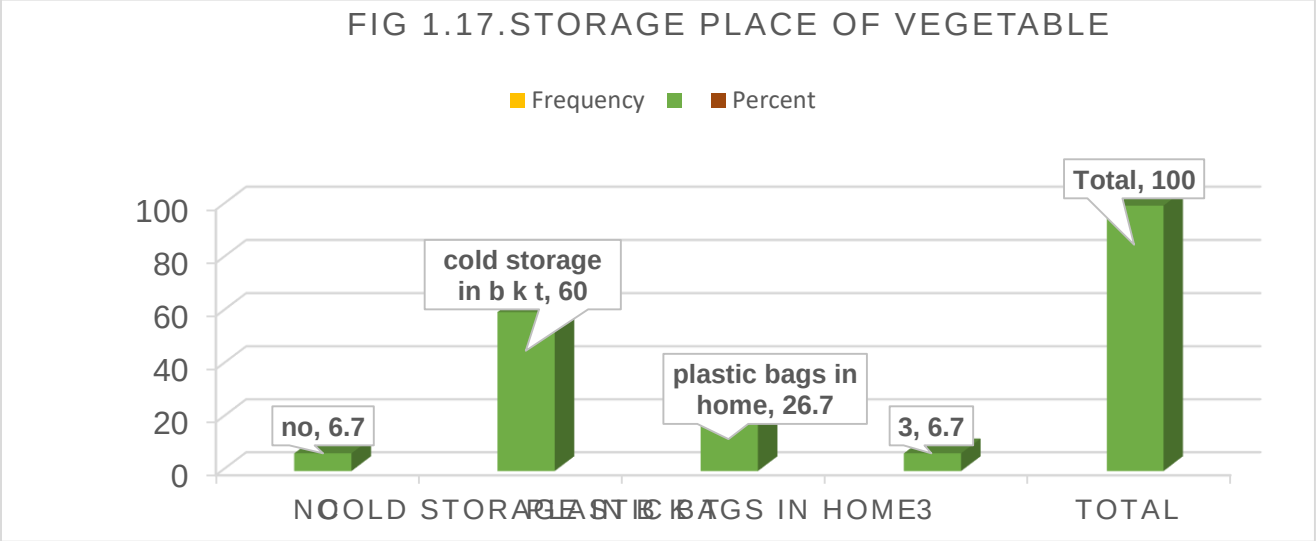


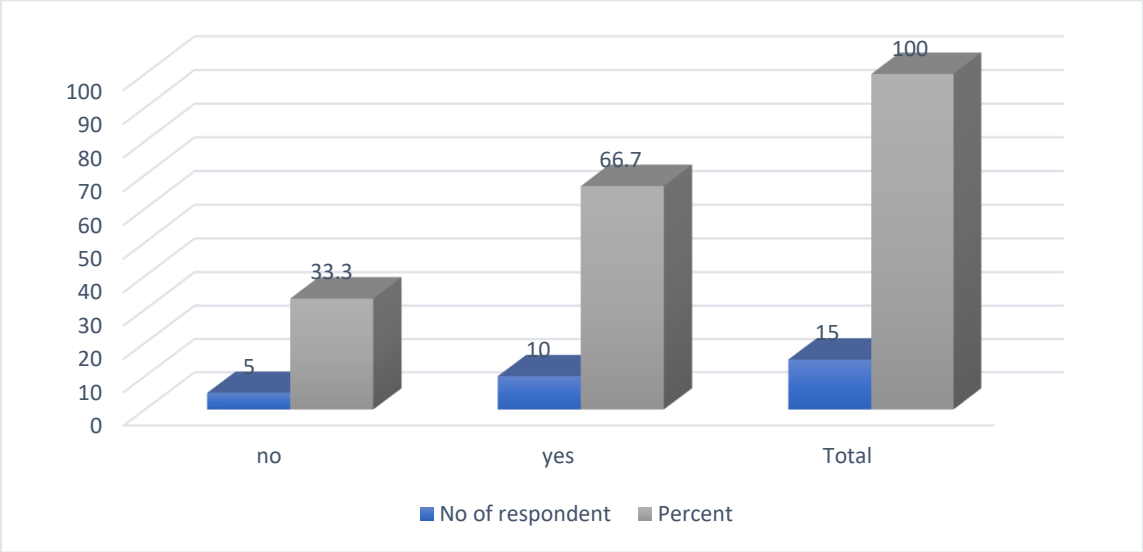
Table 17: Showing in the table which method is use preserving its fruits and vegetables (frequency and percentage)

use preserving technology by farmer		No of respondent	Percent
	Sprinkling method	4	26.7
	wrap cotton cloths	11	73.3
	Total	15	100.0

Table 17: Showing in the table which method is use preserving technology by farmer fruits and vegetables sprinkling method 4(26.7%), and 11(73.3%) dry wrap cotton cloths.

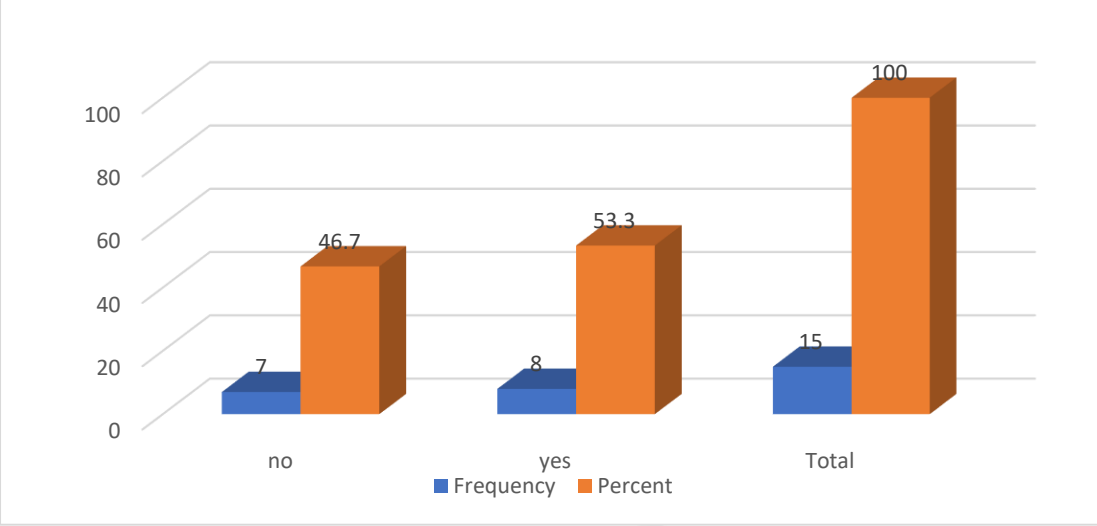
The above given Fig. 1.17 showing that out of 15 respondents highest 4(26.7%) of the use plastic bags and in clay home 3(6.7%) cold storage 6 (36.5)

Fig.1.18: Are you aware from modern method preservation



The above given Fig. 1.18 showing that out of 15 respondents highest 10(66.7%) of the yes and 5(33.3%) are no respondent use modern methods.

Fig.sowing data use old technology for preserving methos



The above given Fig. 1.19 showing that out of 15 respondents highest 8(53.3%) of the yes and 7(46.7%) are no.

Table 18: comparison mean and std mean storage preservation technology aware yes, or no?

Comparison means and std mean	Storage or preservation technology use both	Are you aware of the modern method, if yes, which one?	Are you aware of the modern method, if not, which one?
Mean	.73	.67	.53
N	15	15	15
Std. Deviation	.458	.488	.516

Table 18: showing mean and std mean of aware yes and no and use are farmer both technologies. use both technology storage or preserving (mean and std mean .73& .458) (aware yes .67&.488) and (no aware .53&.516)

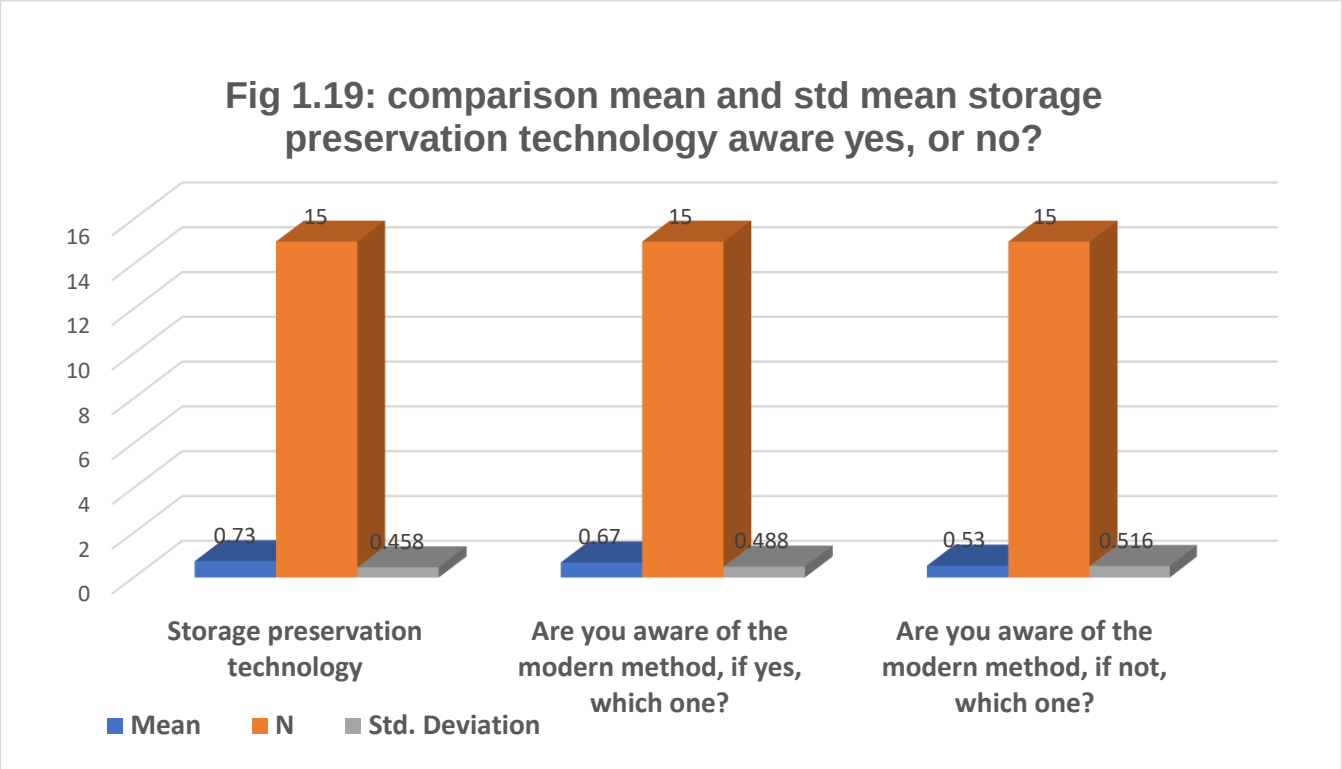


Fig 1.19: comparison mean and std mean storage preservation technology aware yes, or no. High yes aware mean 0.67 std mean 0.488.and storage use technology 0.73mean 0.458 std mean and are no aware 0.53mean 0.516 std mean below.

Table 19 and 20: which you are use fruits and Vegetable store by new and old technology are used for preserving technologies fruits and vegetable coir (13.3%) and caning 1(6.7%), clay in home4(6.7%), dry gunny bags 3(20. %), plastic zip top bags 2(13.3%), put in paper 2(13.3%).

New technology use in rural market farmer refrigerator 2(13.3%), cold storage 4(26.7%) high cooling 3(20.0%). chemical process 2(13.3%). thermoelectric cooler1(6.7%) high cooling 1(6.7%).

Table 19 and 20: which you are use fruits and Vegetable store by new and old technologies

S. No	Vegetable store by new and old technologies	Category	No of respondent	Percentage %
1	Which old method do you use to preserve vegetables?	no	2	13.3
		Coir	1	6.7
		Caening	1	6.7
		Clay in home	4	26.7
		Dry gunny bags	3	20.0
		Plastic zip top bags	2	13.3
		Put in paper	2	13.3
		Sun drying	15	100.0
		Aeration room		
		Total		

2	**What new method do you use to store fruits and vegetables?**	**Refrigerator** **Cold storage** **High cooling** **Chemical process** **Thermo electric cooler** **Silicon pouch** **Dehydration** **Total**	**2** **4** **3** **2** **1** **1** **1** **15**	**13.3** **26.7** **20.0** **13.3** **6.7** **6.7** **6.7** **100.0**
Sr.No.	**Fruit store by new and old technologies**	**Category**	**No of respondent**	**Percentage %**
1	**Do you use new technology to preserve fruits**	**No** **Cold storage** **Self-life enhances** **refrigerator** **freezing** **aeration boxes or room** **Total**	4 1 2 2 4 2 15	**26.7** **6.7** **13.3** **13.3** **26.7** **13.3** **100.0**
2	**Do you use old technology to preserve fruits**	**No** **Airy plastic pots**	0 **2** 4	**26.7** **13.3**

		Sun drying	**3**	**26.7**
		Aeration room	4	**20.0**
		Put in paper	2	**26.7**
		Zip top plastic bags	15	**13.3**
		Total		**100.0**

CONCLUSION: - It is cross sectional study we include 15 respondents out of 50 in rural market Farmers' socio- demographic information. Out of 15respondent's male. The 50% participants were from Bakshi ka talab market and 50% from Navin mandi Puraniya. There are 6 (40.0 percent) respondents from illiterate and 2 (13.3% respondents) from just illiterate. and 3 (20.0% respondent) from juniors. and 4(26.7percent %) higher education the majority of respondent. Farmers' socio- demographic information. Out of 15respondent's male. The 50% participants were from Bakshi ka talab market and 50% from Navin mandi Puraniya. There are 7(47.0 percent) respondents' low-income group and 6 (40.0% respondents) medium income group and2 (13.3% respondent) high income group. High majority percent of low-income group farmer present in rural market. The majority of respondent high illiterate. Fruit's production information. The majority of the respondent is apple production 0(00 %) and guava production 10 (67.7%) yes and 5(33.3%) are no. The majority of the respondent is banana production YES 9(60%) and 6(40.0%) NO and the majority of the respondent is 1(6.7 %) growing strawberries YES and 14 NO (93.3%) are no growing and Avocado production 0 (0.00%) pineapple 0(00.0%). The majority of the respondent is production orange 1 (6.7%) yes and 14 (93.9%) NO growing and pomegranate 3(20.0%) YES and are no growing 12 (80.0 and orange 2 producing yes 4(73.3%), NO producing 11(73.3%) grapes are producing 0 (00.0%). showing that out of 15 respondents highest 10(66.7%) of the yes and 5(33.3%) are no respondent use modern methods showing that out of 15 respondents highest 8(53.3%) of the yes and 7(46.7%) are no. The above given table 12 showing respondent 15. storage time 1(6.7%) for 6 month and 3(20.0%) for 8-month ,6(40.0%) 10-month 5(33.3%)11-12month. which you are use fruits and Vegetable store by new and old technology are used for preserving technologies fruits and vegetable coir (13.3%) and caning 1(6.7%), clay in home4(6.7%), dry gunny bags 3(20. %), plastic zip top bags 2(13.3%), put in paper 2(13.3%).

New technology use in rural market farmer refrigerator 2(13.3%), cold storage 4(26.7%) high cooling 3(20.0%). chemical process 2(13.3%). thermoelectric cooler1(6.7%) high cooling 1(6.7%).

Summary: With the present study we try to find out the prevailing traditional and new technology in rural market and compare new technology and traditional on increasing shelf -life of fruits and vegetables, which is to found to be storage method of fruits and vegetables use highest percentage traditional method and no aware new technology low cost and longtime preserve and no any effect of sailing time cost. We found that farmer who are buy grains vegetables and fruits where? grain is buy Navin galla mandi and f & v navin galla mandi Puraniya. Most of the respondent low-income group present in rural market, and illiterate highest percentage in present in rural market. they showing problem related to increasing self-life of fruits and vegetables. Most respondent storage method use vegetable increase self-life by gunny bags. the technique is purely based upon the scientific principles. Therefore, for successful storage of fruits and vegetables one should know the basic principles behind.

Suggestions: Reduce screen time farmer guidance is needed. use zero energy cool chamber freshness of fruit and vegetables are retained under Controlled Atmosphere conditions without the use of any chemicals asked on the principles of direct evaporative cooling zero energy cool chambers (ZECC) have been developed. **The main advantage of this on-farm low-cost cooling technology is it does not require any electricity or power to operate and materials required to construct this like bricks, sand bamboo, etc.** ZECC can reduce temperature by 10-15°C and maintain high humidity of about 95% that can increase shelf life and retain quality of horticultural produce.

Limitations: The present study was conducted on a small sample therefor it is no much generalizable. the study was conducted at Lucknow city in rural market only so need to explore understanding this area of study better.

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