UTILITY PERCEPTION OF MARATHWADI BUFFALO BY THE REARERS

BY

Mr. BANDE KALIDAS DAGDU
B.Sc. (Agri.)

MASTER OF SCIENCE
(AGRICULTURE)
IN
EXTENSION EDUCATION

DEPARTMENT OF EXTENSION EDUCATION
COLLEGE OF AGRICULTURE, LATUR.
VASANTRAO NAIK MARATHWADA KRISHI VIDYAPEETH, PARBHANI-431402 (M.S.), INDIA.
2016

UTILITY PERCEPTION OF MARATHWADI BUFFALO BY THE REARERS

DISSERTATION

Submitted to

Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

In partial fulfilment of the requirement for the

degree of

MASTER OF SCIENCE

(Agriculture)
IN
EXTENSION EDUCATION

By
Mr. BANDE KALIDAS DAGDU
B.Sc. (Agri.)

DEPARTMENT OF EXTENSION EDUCATION,
COLLEGE OF AGRICULTURE, LATUR.
VASANTRAO NAIK MARATHWADA KRISHI VIDYAPEETH, PARBHANI-431402 (M.S.), INDIA.
2016

CANDIDATE'S DECLARATION

I hereby declare that the dissertation

or part thereof, has not been

Previously submitted by me

for a degree of any

University or

Institute

Place: LATUR

Date: 30/05/2016

BANDE K. D.

Reg. No: 2014/A/72/ML

Dr. J.M. DESHMUKH
M.Sc. (Agri.), Ph.D.
Assistant Professor
Department of Extension Education,
College of Agriculture, Latur.
Vasantrao Naik Marathwada Krishi Vidyapeeth,
Parbhani- 431 402 (M.S.).

CERTIFICATE–I

This is to certify that the dissertation entitled, **"UTILITY PERCEPTION OF MARATHWADI BUFFALO BY THE REARERS."** submitted by **Mr. BANDE KALIDAS DAGDU Reg. No.2014A/72/ML** to the Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani in partial fulfillment of the requirement for the degree of **MASTER OF SCIENCE (Agriculture)** in the subject of **EXTENSION EDUCATION** is record of original and bonafide research work carried out by him under my guidance and supervision. It is of sufficiently high standard to warrant its presentation for the award of the said degree.

I also certify that the dissertation or part thereof has not been previously submitted by him for a degree of any university.

Place: LATUR
Date: 3 / 8 /2016

J.M. DESHMUKH
Research Guide
&
Chairman
Advisory committee

CERTIFICATE II

This is to certify that the dissertation entitled, **"UTILITY PERCEPTION OF MARATHWADI BUFFALO BY THE REARERS"** submitted by **Mr. BANDE KALIDAS DAGDU Reg. No. 2014A/72/ML** to the Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani in the partial fulfilment of the requirement for the degree of **MASTER OF SCIENCE (Agriculture)** in subject of **EXTENSION EDUCATION** has been approved by the Student's Advisory Committee after viva voice examination in the collaboration with the External Examiner.

External Examiner

(R.D. Ahire)

Dr. J. M. Deshmukh
Research Guide & Chairman

Advisory Committee members

Dr. V. B. Kamble
Associate professor
Department of Extension Education,
College of Agriculture, Latur.

Dr. R. A. Patil
Assistant professor
Dept. of A.H.D.S.
Collage of Agriculture, Latur

Associate Dean (P.G.)
College of Agriculture,
V.N.M.K.V., Parbhani-431 402

3/8/16

Associate Dean & Principal
College of Agriculture,
Latur-413512

ACKNOWLEDGEMENT

It always a nostalgic feeling whenever one glance back to the days of hard work, tensions and the need of the hour of excel. One would not achieve whatever he is now, without all the help, encouragement and the wishes of the near and the dear ones. Teachers, parents, friends and well wishers are an integral part of this. I owe them a lot and it always is a difficult task expressing and putting into words the sense of gratitude I feel towards them. I wish to remember and acknowledge all who made this thesis possible.

Inspiration is the best medicine which can make it possible to run for crippled one and it is veritable gold of mine to get talented and inspiring willful guidance chairman of advisory committee and research guide, **Dr. J.M.Deshmukh,** *Assistant Professor Department of Extension Education, C.O.A, Latur, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani for suggesting need based research project and for her valuable guidance, constant encouragement, financial help, timely suggestions, keen interest, constructive criticism, painstaking efforts and co-operation in present study. The great influence to my educational work is of her sound technical knowledge and discipline. I feel extremely honored for the opportunity bestowed upon me to work under her versatile guidance.*

'Good music with a sweet tune makes a complete song" like this I take opportunity to express a heartfelt ' Thanks' to the advisory committee members **Dr.V.B.KAMBLE,** *Associate Professor, Department of Extension Education, College of Agriculture, Latur,* **Prof. R.A.Patil** *Assistant professor, Dept. of A.H.D.S. C.O.A, Latur, and I also record my heartfelt thanks to* **Dr. D.D.Suradkar,** *Assistant Professor, College of Agriculture, Latur, Prof. B.N. Aglave, Associate professor, Department of crop science,(Agronomy) Vilasrao Deshmukh college of Agriculture Biotechnology, Latur, Prof.* **A. N. Puri,** *Assistant Professor, Department of SSAC, College of Agriculture, Latur, Prof.* **D.G. More,** *Assistant Professor, Department of AHDS, College of Agriculture, Latur for their valuable suggestions and constant encouragement.*

My sincere thanks to **Dr. B.Venkateshwaralu,** *Hon. Vice- Chancellor, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani,* **Dr. A.S. Dhawan,** *Director of instruction and Dean, Faculty of Agriculture, VNMKV, Parbhani,* **Dr. S.S. Shetgar**

Associate Dean and Principal, College of Agriculture, Latur, for providing necessary facilities for conducting the research.

I can't eschew to express my special thanks to ***Prof. S.P. Pole*** *everlasting encouragement and support towards me and make my career better to best.*

No words are enough to express hearties gratitude to my beloved parents Shri. ***DAGDU BANDE (Anna)****, Shrimati* ***ZUMBARBAI (Aai)*** *who has been striving throughout their life to make my life lively with success and light. Who have always inspired towards success and above all they have given me a moral strength and shaped my life and lead me better to best. Words are insufficient to take account of encouraging and evergreen love of my brother* ***Devidas*** *and* ***Ramdas, Sistar Rukmini, Smrimati Godavari Bande*** *and* ***Shrimati Muktabai Bande Aarti, Mahadevi, shridevi*** *And always supported to my dear one Miss* ***Rajashree*** *and mother miss Shrimati* ***Mahadevi P.***

The affection and love, I have acquired from my seniors Raju londhe, Ram Maharnor, Anil Bhikkad, Kedar Wable, Shyam bhoye, Dhumale and Asif who supported me strongly and believably to carry out this research work.

I shall be failing my duties if I do not express heartful thanks to my Extension education family Sandip, shivshankar, Pradeep, Vijay, Shreeram, Shidarth Yogesh, Pawan Zeeshan Janani Spandana Dhanashree and Smita my heart for their excellent company, warmer affections and co-operation during investigations.

I take this opportunity to express my heartfelt indebtedness and deepest sense of gratitude to my Friends Sridevi Swami, Priyanka Jadhav, Nilesh More, Nilesh Talpe, Somatkar Vishnu, Sunewad Amol, Karan Chavan Ashok Shinde , and Mayur Girase. One needs sincere friends of major junctures in life to bear strains and fatigue I have been luckier in this respect that affectionate all my UG friends Nitin Jadhav, Shankar Ghorband, vikas Hande and Vijay Biradar say thanks about their love and affection.

I would like to say special Thanks to Gurunath (Dada) , Pandurang , Shivshankar (para), N. Bansode, Namdev, Rameshwar, Laxman, Akhshy, Ram, Parmeshwar, Nagnath, Gajanan, Karbas, vishal, vishal, Gajanan Swami, Parmeshwar G., Tanaji Lale, D. ulagadde, Dinesh, Nikhil, Amar, Atmaram, Satyam, Shrikisnha, Abhisekah and all members of Shiv Mitra mandal Who always wih me in every moments and every situation.

Finally I thanks to Ram Sakole And Shrimati Sunita Sakole for their kind help.

Last but not least my warm acknowledgements to ***farmers, soldiers, scientists and great social workers,*** *who have devoted their whole life for the country.*

Place: Latur
Date: 3 / 8 /2016

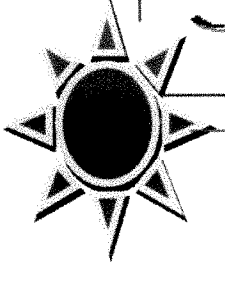
Kalidas Bande
(Reg. No: 2014A/72 ML)

CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION



Chapter-I

INTRODUCTION

Livestock is an important source of income for a nation. The share of livestock production in the aggregate agricultural output in some of the West European countries is about 60 to 80 per cent in recent years. In India, The livestock sector alone contributes nearly 25.6% of Value of Output at current prices of total value of output in Agriculture, Fishing & Forestry sector. The overall contribution of Livestock Sector in total GDP is nearly 4.11 %at current prices during 2012-13. Livestock products like meat, milk and milk products have a prominent place in the dietary habits of people in advance countries.

The significance of animal husbandry in the Indian economy arises also because of its assistance to tackle the serious problems of unemployment and under employment for weaker sections in the country and for providing subsidiary occupation for income generations. It also plays dominant role in dry land agriculture particularly in the semi arid and arid areas of the country. Thus, animal husbandry has an importance in the national income of the country.

It is a well known fact that India has greatest number of livestock in the world. India is at the top of the world having one sixth of cattle, half of buffaloes and over one fifth of goat and sheep. Countries which have well developed livestock based industries like Australia, Belgium, Denmark, Finland, Ireland, Italy, Norway, Netherland, Sweden, Switzerland etc. have only small herds that are less than one per cent of the total.

Livestock requires sufficient land area for their sustenance, particularly grazing land consisting of permanent meadows and pastures. India, has the lowest per unit amount of grazing land, even densely populated countries of Europe have much higher amount of grazing land per unit of livestock, depending upon too small a patch of land.

A good measure of efficiency of livestock enterprise in any country is its contribution to the country's national income. On an average income from livestock was about 18 to 20 per cent of the gross value of output from

agriculture. This is extremely small when we consider the huge livestock resources of the country. Out of the income contributed by the livestock nearly 70 per cent was accounted by milk and milk products, a little more than 7 per cent by animal dung and nearly 2 per cent by hides and skin.

1.1 Present status of milk production in India

India ranks first in livestock population in world. In India annual milk production has increased about seven times since independence and it virtually doubled since 1991-92. Milk production is expected to increase by over 4% to 127.29 million tons in 2011-12 as against 121.84 million tons in 2010-11. With the increase in milk output per capita availability of milk per day also increased from 176 grams in 1990-91 to estimated 274 grams in 2010-11 which, however, is much lower than that in developed countries. Considering the pace of population growth and surge in demand for the protein rich drink, the country needs to step up milk output to 200 million tons by 2021-22. Thus, annual milk output has to increase by 7.5 million tonnes, as against the average four million tonnes achieved over the last 10 years .while in Maharashtra state, the total milk production has been increased significantly and was 9.7 million tons during 2011. But out of total milk production only 55 per cent of milk is converted into product. So, it is needed to convert more and more milk product to satisfy demand of consumers.

1.2 Population of buffalo in India

India is basically a rural oriented and land based with 76.27 per cent of rural population. It is a agricultural country with $1/2^{th}$ of world's population of buffalo. In India total contributes around 21.23 per cent of the total livestock population. In India total number of buffalo as per 19^{th}census of 2012 is 108.702 million numbers.

1.3 Population of buffalo in Maharashtra

Livestock position in Maharashtra state amongst allied activities, animal husbandry is an important one, as per the livestock census of 2012; the total livestock in the State is 324.89 Lakh numbers in 2012 and ranks 6th at National

Level. In which the population of buffalo is 5.594 million, Marathwada 1.193 million and Latur is contributes 0.2 million numbers.

1.4 Location, performance of the Marathwadi buffalo and physico – chemical properties of Milk.

The Marathwadi buffaloes inhabit Marathwada region particularly the district of Parbhani, Beed, Jalna Latur and part of adjoining districts of Maharashtra State. A Marathwadi buffalo on account of the sizable population contributes significantly to the economy of the farmers.

Marathwadi breed represents the very ancient indigenous type characterized with larger built and long flat horns. These buffaloes are found in Marathwada region of Central India especially in Parbhani, Nanded, Beed, Hingoli and Latur districts of Maharashtra state.

Marathwadi buffaloes are reared in low external input system mainly due to their low maintenance cost, feed conversion efficiency, moderate production and ability to thrive in harsh climate conditions. This breed is not confined to any community in the region but is primarily maintained by small marginal farmers and landless laborers mostly for their moderate milk production which varies from 4 to 8 kg/day. Breeding of these animals is mostly unorganized and is either by natural service with available bulls or by grading up with Murrah semen.

The colour of Marathwadi buffalo prominent black (97.70%), jet black.Broad forehead with short neck. Horns are mostly round, comparatively short slightly curved straight way going parallel to neck and not extended beyond hump, length is about 43.7- 47 cm. moderate length of tail is about 65-66 cm. reaching up to hock. The body size is medium built and represent ancient indigenous type. Body weight is 320 to 400 kg.

Performance of Marathwadi buffaloes has been reported to vary from different reports. Thombre et *al.* (2009) reported average lactation yield of 952.26 kg ±23.73 kg under field condition while, Gujar (2007) recorded an average overall lactation yield of Marathawadi buffaloes.

The studies on physicochemical properties of Marathwadi buffalo milk recorded the mean values for specific gravity, acidity and pH at 1.031 + 0.001, 0.154 + 0.001 and 6.544 + 0.007, respectively. Highly significant correlation coefficients existed for the specific gravity and acidity. The comparative differences in these parameters with those of Nagpuri buffalo milk were minimum.

The term utility perception of marathwadi buffalo by the rearers has been a problem for a researcher in agriculture. Keeping in view the subjectivity, there was a need to evolve a methodology which would introduce much needed objectivity in the assessment of utility perception of marathwadi buffalo . In this content, it is worth mentioning that the study of utility perception of marathwadi buffalo by the rearers is a means to an end of making animal husbandry more useful.

Considering the importance and utility of marathwadi buffalo in Indian culture and economy the study entitled "Utility perception of Marathwadi buffalo by the rearers" has been selected with following objectives.

1.5 Specific objectives of the study

1. To study the profile of Marathwadi buffalo rearers.
2. To study the utility perception of Marathwadi buffalo by the rearers.
3. To study the relationship between profile with utility perception of Marathwadi buffalo rearers.
4. To study the constraints faced by the Marathwadi buffalo rearers and obtain their suggestions.

1.6 Importance and scope of the study

There are several studies conducted on the utility perception of Red Kandhari, Deoni cattel. Very limited studies are conducted in Marathwada utility perception about Marathwadi buffalo rearers and hence this study will conducted to know the utility perception of Marathwadi buffalo rearers in Marathwada region. It is expected that it would provide a feedback to the

concerne animal scientist in Agricultural universities and policy makers for the growth and development of Marathwadi buffalo and its related departments.

1.7 Limitations of the study

The present study is confined to only 120 buffalo rearers selected from the villages of Udgir, Nilanga and ausa tahasils in Latur district of Maharashtra state. The findings of this study may be applicable to the localities having same ecological and social environment as Udgir, Nilanga and Ausa tahasils. Similar studies should be undertaken to have the general conclusion about utility perception of Marathwadi buffalo by the rearers about Marathwadi buffalo.

1.8 Layout of dissertation

The layout of dissertation has been presented in following manner.

- Introduction
- Review of literature
- Methodology
- Result
- Discussion
- Summary and Conclusions
- Implications

1.9 Organization of the thesis

The present study is presented in seven major chapters. The first deals with the introduction. The second chapter comprises the relevant literature reviewed by the researcher. The third chapter deals with methodology used by researcher in carrying out the present study. The findings of the study and discussion thereon have been presented in the fourth and fifth chapter, respectively. The sixth chapter devoted to summary and conclusions and finally the seventh contains implications of the investigation. This is followed by literature cited and appendix.

REVIEW OF LITERATURE

Chapter- II

REVIEW OF LITERATURE

A comprehensive review of literature is essential for any scientific investigation. It is a guideline to research study. There are references relating directly as well as indirectly to present research constraint which are received from research papers, previous thesis, journals, surveys and books. The collected references are arranged as per the objectives of research constraint with specific heads and sub heads.

2.1 Profile of Marathwadi buffalo rearers.

2.2 Utility perception about marathwadi buffalo by the rearers.

2.3 Relationship between profile with utility perception of Marathwadi buffalo rearers.

2.4 Constraints faced by the Marathwadi buffalo rearers and obtain their suggestions.

2.1 Profile of Marathwadi buffalo rearers

2.1.1 Farming experiece

Mane (2001) explored that majority (42.00%) of the respondents were from middle age group followed by young age group 32.00 per cent and 28 per cent were from old age group.

Shingade (2001) revealed that majority (53.33%) of the dairy farmers were from middle age group i.e.31 to 45 years, while 39.10 per cent of them were from young age group that is up to 30 years and merge percentage i.e.7.50 per cent per cent of farmers were found in old age group.

Patil (2003) stated that majority (53.83%) of the respondents were from middle age group i.e. age up to 35 years and 16.67 per cent percent were from old age group i.e. above 50 years respectively.]

Ainalawar (2012) reveled that that majority (37.51 %) of cattle rearers were from Low experience category followed by middle experience category 33.33 per cent and high experience category 29.16 per cent respectively.

2.1.2 Education

Thombre *et.al* (2010) reported that 28.33 per cent respondents had primary level education followed by 25.00 per cent had secondary level, 20.00 per cent had no education and 16.67 per cent and 10.00 per cent respondents received high school level and college level education respectively.

Salunke (2011) reported that 14.02 per cent of goat rearers had no education and 20.00 percent had primary education followed by 20.50 per cent and 25.50 per cent had received secondary and higher secondary education respectively. About 20.00 per cent were received the education up to college level.

Ainlawar (2012) revealed that 26.67 per cent of cattle rearers had no education and 45.00 per cent had primary education followed by 20.84 per cent and 4.16 per cent had received secondary and higher secondary education respectively. About 3.33 per cent) were received the education up to college level.

Pawar (2013) revealed that 28.80 per cent of cattle rearers were illitrate and 41.60 per cent had primary education followed by 17.60 per cent and 4.00 per cent had received secondary and higher secondary education respectively. About 8.00 per cent were received the education up to college level.

2.1.3 Family size

Patil (2003) reported that 47.50 per cent of respondents having small size family (up to 5 members) and 20.00 per cent respondents were from large family size (11 members and above).

Rajput (2007) indicated that majority (64.44%) of respondents were having medium family size followed by small size family 21.48 per cent remaining 14.08 per cent of the respondent having big size family.

Thombre *et.al* (2010) reported that majority (46.67 %) of the respondents i.e. belongs to small family size followed by 38.33 per cent belongs to medium family size and 15.00 per cent belongs to big family size category.

Salunke (2011) reported that 48.34 per cent of the cattle rearers belongs to the small family size category followed by 40.00 per cent cattle rearers belongs to medium family size category and remaining 11.67 per cent of respondents belongs to large family size category.

Ainlawar (2012) stated that nearly 42.50 per cent of cattle rearers belongs to small family size followed by 36.66 per cent belongs to medium family size and 20.83 per cent belongs to large family size.

Pawar (2013) indicated that majority (64.44%) of respondents were having medium family size followed by small size family 21.48 per cent remaining 14.08 per cent of the respondent having big size family.

2.1.4 Occupation

Wadkar (2007) observed that the majority (32.50%) of the respondents were engaged in cattle rearing + farming category followed by 27.50 per cent and 13.34 per cent in cattle rearing + labour & cattle rearing +labour+ farming occupation respectively.

Rajput (2007) observed that majority (40.70%) of the respondents has (cattle rearing + farming) as the main occupation. Non of the respondents has exclusively cattle rearing as a main occupation. The rest of the respondent (cattle rearing + Business), 25.19 per cent were having 18.52 per cent (cattle rearing + farming + service) of them has 9.89 per cent (cattle rearing + labour) and 3.70 per cent had (cattle rearing + farming + Business + services) .

Thombre *et.al* (2010) stated that majority (78.33%) of the cattle rearers i.e. had farming as the main occupation followed by 16.67 per cent had farming + business as the occupation and 5.00 per cent had labour as the occupation.

Salunke (2011) reported that majority (35.00 %) of the respondents were engaged in cattle rearing + farming category, followed by 27.50 and 14.17 per cent in cattle rearing + labour and cattle rearing + labour + farming categories. Only 7.50 per cent and 5.83 per cent respondents were engaged in the category of cattle rearing and cattle rearing + other. The category cattle rearing + labour + other and cattle rearing + farming + other holds 04.17 per cent of the

respondents each, and remaining 1.66 per cent of respondents engaged in cattle rearing + labour + farming + other category.

Ainlawar (2012) reported that majority (52.50%) of the respondents were engaged in cattle rearing + farming category, followed by 22.50 per cent in cattle rearing + labour + farming category. Only 5.83 per cent respondents were engaged in the category of cattle rearing. The category cattle rearing + labour + other and cattle rearing + farming + other holds 5.83 per cent and 13.33 per cent respectively.

Pawar (2013) reported that that majority (52.50 %)of the respondents i.e. were engaged in cattle rearing + farming category, followed by 00.00 and 22.50 per cent in cattle rearing + labour and cattle rearing + labour + farming categories. Only 5.83 per cent and 00.00 per cent respondents were engaged in the category of cattle rearing and cattle rearing + other. The category cattle rearing + labour + other and cattle rearing + farming + other holds 5.83 per cent and 13.33 per cent of the respondents each, and remaining 00.00 per cent of respondents engaged in cattle rearing + labour + farming + other category.

2.1.5 Herd Size

Patil (2003) observed that majority (42.50%) of cattle keepers i.e. having small flock size and 32.50 per cent having medium flock size.

Rajput (2007) reveled that majority (81.48%) of the respondent were from medium herd size followed by the small herd size 10.37 per cent and high herd size 8.15 per cent.

Thombre *et.al* (2010) stated that most (61.67%) of the cattle rearers i.e. had small herd size followed by 25.00 per cent had medium herd size while only 13.33 per cent had big herd size.

Salunke (2011) reported that larger proportion (40.00%) of the goat rearers 40.00 per cent had medium flock size of goats followed by 33.33 per cent had small size flocks. Around 26.67 per cent had large flock size of goats.

Ainlawar (2012) reported that larger proportion (40.84%) of the cattle rarers had medium size of herd followed by 38.33 per cent had small herd size and 20.83 per cent had large herd size of cattle's.

Pawar (2013) stated that larger proportion (40.84%) of the cattle rearers had medium size of herd followed by 38.33 per cent had small herd size. Around 20.83 per cent had large herd size of cattle.

2.1.6 **Land holding**

Patil (2003) observed that majority (52.50 %) of goat keepers belongs to medium land holding and 36.67 per cent belongs to small land holding.

Thombre *et.al* (2010) observed that majority (43.33%) of the Deoni cattle rearers i.e. belongs to medium land holding (2.1 to 4 ha.) followed by 35.00 per cent belongs to big land holding (above 4 ha) and (21.67%) belongs to small land (up to 2 ha).

Salunke (2011) observed that majority (54.17%) of the goat rearers i.e. belongs to marginal land holding followed by 25.83 per cent belongs to small land holding, 17.50 per cent goat rearers belongs to no land holding.

Ainlawar (2012) reported that majority (50.83%) of the cattle rearers i.e. belongs to medium land holding followed by 15.00 per cent belongs to semi-medium land holding, 14.17 per cent belongs to big land holding and 5.83 per cent cattle rearers belongs to no land holding.

Pawar (2013) observed that majority (50.83 %) of the cattle rearers had medium land holding followed by 15.00 per cent of the cattle rearers belongs to semi-medium land holding 14.17 per cent are big farmers 8.34 per cent had small land holding and Remaining 5.83 per cent of cattle rearers had no land holding and 5.83 per cent had marginal land holding.

2.1.7 **Annual income**

Wadkar (2007) observed that the majority (32.50%) of the respondents were engaged in cattle rearing + farming category followed by 27.50 per cent and 13.34 per cent in cattle rearing + labour & cattle rearing + labour + farming occupation respectively.

Rajput (2007) observed that majority (40.70%) of the respondents has cattle rearing + farming as the main occupation. None of the respondents has exclusively cattle rearing as a main occupation. The rest of the respondent has cattle rearing + Business, 25.19 per cent were having 18.52 per cent cattle

rearing + farming + service of them has 9.89 per cent (cattle rearing + labour) and 3.70 per cent had (cattle rearing + farming + Business + services).

Thombre *et.al* (2010) stated that majority (78.33%) of the cattle rearers i.e. had farming as the main occupation followed by 16.67 per cent had farming + business as the occupation and 5.00 per cent had labour as the occupation.

Salunke (2011) reported that majority (35.00 %) of the respondents were engaged in cattle rearing + farming category, followed by 27.50 per cent and 14.17 per cent in cattle rearing + labour and cattle rearing + labour + farming categories. Only 7.50 per cent and 5.83 per cent respondents were engaged in the category of cattle rearing and cattle rearing + other. The category cattle rearing + labour + other and cattle rearing + farming + other holds 4.17 per cent of the respondents each, and remaining 1.66 per cent of respondents engaged in cattle rearing + labour + farming + other category.

Ainlawar (2012) reported that majority (52.50%) of the respondents were engaged in cattle rearing + farming category, followed by (22.50%) in cattle rearing + labour + farming category. Only (5.83%) respondents were engaged in the category of cattle rearing. The category cattle rearing + labour + other and cattle rearing + farming + other holds 5.83 per cent and 13.33 per cent respectively.

Pawar (2013) was reported that most (40.01%) of the cattle rearers had medium level of annual income followed by 23.33 per cent had high level of annual income. Only (36.66 %) had low level of annual income.

2.1.8 **Social Participation**

Mane (2001) revealed that majority (77.33%) of respondent's had medium social participation and 10.67 per cent respondents were from low social participation, respectively.

Rakshe (2002) observed that majority (63.34%) of the dairy farmers having medium social participation and 18.33 per cent each were from high and low social participation, respectively.

Patil (2003) observed that majority (45.84%) of goat keepers having low social participation and 18.33 per cent were having high social participation.

Hajare Sonali (2010) found that, 60.83 per cent of the respondents had low social participation while, 34.17 per cent of the respondents were having medium social participation and 5.00 per cent of the respondents were found in high category of social participation.

Salunke (2011) reported that majority (40.00 %) per cent of the goat rearers had low social participation followed by 33.33 per cent had medium social participation and remaining 26.67 per cent of them had high social participation.

Ainlawar (2012) revealed that most (46.66%) of the cattle rearers belongs to high social participation followed by 32.51 per cent belongs to low social participation and 20.83 per cent belongs to medium social participation.

Pisure (2012) reported that 8.33 per cent respondents had low social participation while, 77.50 per cent of the respondents having medium social participation and 14.17 per cent of the respondents were found in high category of social participation.

Pawar (2013) reveled that majority (32.51%) of the cattle rearers had low social participation followed by 20.83 per cent had medium social participation and remaining 46.66 per cent of them had high social participation

2.1.9 Economic motivation

Chavan (2007) reported that majority (79.17 %) respondents 79.17 per cent had medium level of economic motivation, only 01.67 per cent of respondents had high extension contacts and 19.10 per cent of respondents had low extension contact.

Jadhav (2003) revealed that more than half (58.00%) of the respondents had medium economic motivation, 16.00 per cent of the respondents had high economic motivation and 26.00 per cent of the respondents had low economic motivation.

2.1.10 Use of sources of information

Waghmare *et al,* (1998) indicated that 96.66 per cent respondents felt that agriculture assistance and village extension workers were most credible sources of information followed by neighbours, friends and relatives expressed by 8.66 per cent, whereas, progressive farmer and local leaders were expressed by 86.66 per cent respondents. Further it was found that 43.33 per cent farmers viewed that the agril. extension officer is most credible source.

Patil (2003) revealed that most (41.67%) of the respondents had medium use of source of information , 27.50 per cent use less source of information , 18.33 per cent use high source of information and 12.50 per cent from no use of source of information .

Salunke (2011) reported that larger proportion (64.17%) of the respondents had medium use of sources of information followed by 23.33 per cent of the cattle rearers had more use of sources of information. Only 12.50 per cent goat rearers had less use of sources of information.

Ainlawar (2012) stated that majority (39.16%) of the respondents i.e. had medium use of source of information followed by 33.33 per cent had high use of source of information and 27.51 per cent respondents had low use of source of information.

Pawar (2012) reported that that larger proportion (39.16 %) of the respondents had medium use of sources of information followed by 33.33 per cent of the cattle rearers had more use of sources of information. Only (27.51%) cattle rearers had less use of sources of information.

Sable (2013) indicated that 24.80 per cent respondents had low social while, 56.00 per cent of the respondents having medium social participation and 19.20 per cent of the respondents were found in high category of social participation.

2.2 To study the utility perception about marathwadi buffalo by the rearers

Marwale *et al.* (1995) reported that most (53.34 %) of dairy farmers per cent were having medium utility perception followed by the high utility perception 26.66 per cent and only (20.00%) were having low utility perception

Bhosale (2000) observed that majority (61.33 %) of the goat rearers has low level of utility perception, while 24.67 per cent and 12.00 per cent had medium and high level of utility perception of cattle rearing practices respectively.

Patil (2003) revealed that majority (61.67%) of the respondents has low level of utility perception, while 25.00 per cent and 13.33 per cent had medium and high level of utility perception of improved cattle management practices respectively.

Salunke (2011) reported that majority (65.83 %) of the respondents was observed to be in medium level of utility perception category followed by low 14.17 per cent and high 20.00 per cent level of utility perception category.

Ainlawar (2012) reported that 37.00 per cent of the respondents belongs to medium level of utility perception category followed by low (27.50%) and high (35.50%) level of utility perception category.

Pawar (2013) stated that majority (37.00 %) of the cattle rearers was observed to be in medium level of utility perception category followed by low 27.50 per cent and high 35.50 per cent level of utility perception category.

2.3. To study the relationship between profile with utility of Marathwadi buffalo rearers.

2.3.1 Farm Experience with utility perception

Rahman *et al.* (1990) found that the age of respondents was significant correlated with the utility perception of scientific poultry husbandry practices.

Dar (1995) observed that there was statistically significant association in negative direction between age and utility perception of the recommended dairy management practices.

Bhosale (2000) found that age of cattle keepers was found to have negatively significant relation with their utility perception about improved cattle management practices.

Patil (2003) observed that age of cattle keepers was found to have negatively significant relationship with their utility perception about cattle management practices.

Rajput (2007) observed that the relationship between the cattle owners and their utility perception was really non significant. It mean increase the age of the respondent is not important i.e. not increased the utility perception level of the respondents.

2.3.2 Education with utility perception

Dar (1995) observed that education was positively and significantly correlated with utility perception of recommended cattle rearing practices.

Nimje *et al.* (1995) reported that education of farmers was positively associated with their utility perception about the poultry management.

Patil (1995) found positive and highly significant relationship between the education of farmers and their level of utility perception about improved management practices of buffaloes.

Kaidan and Ramkumar (1999) reported that there was significant and positive relationship of education with utility perception of dairy farmers about dairy innovation.

Bhosale (2000) reported that there was highly significant and positive relationship between education of cattle keepers and their utility perception level.

Patil (2003) found that education of cattle keepers observed to be highly significant and positively related with their utility perception level.

Salunke (2011) reported the positively and highly significant relation with utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) found that education of cattle rearers was positively correlated with their utility perception level.

2.3.3 Family size with utility perception

Nataraju and Channegowada (1987) found that there was no association between family size and utility perception about dairying occupation.

Narwal *et al.* (1991) reported that there was no significant relationship between family size and utility perception of buffalo management practices in non adopted village.

Dar (1995) found that there was no relation between family size of members of dairy co-operative society and their utility perception of dairy technology.

Bhosale (2000) reported that farm size of goat keepers and their utility perception levels were non-significantly co-related with each other.

Patil (2003) confirmed the relationship between family size of goat keepers and their utility perception was non significant.

Rajput (2007) revealed that family size of the cattle owners was positively and significantly related with their utility perception level. It might due to reason that big family sized, farmers have more contact with other peoples thereby they get an opportunity to share the ideas and experiences.

Salunke (2011) reported that positively and highly significant relation with utility perception about cattle rearing practices at 0.01 per cent probability.

Ainlawar (2012) observed that the relationship between family size of cattle rearers was found to be significant and positively correlated with their utility perception level.

2.3.4 Occupation with utility perception

Bhosale (2000) observed that there is positive relationship between occupation and utility perception level.

Wadkar (2007) reported that there is positive and highly significant relationship between occupation and improved cattle rearing practices.

Salunke (2011) found to be positively and highly significant relation with utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) reported that the occupation of cattle rearers were found to be non significant and negatively correlated with their utility perception level

2.3.5 Herd size with utility perception

Patil (1995) revealed that there was a highly significant positive relationship between the herd size and utility perception about improved management practices of buffalo.

Shirolkar (1998) reported that there was a positive and significant relationship between size of livestock and utility perception of farm women about dairy occupation.

Bhosale (2000) reported that number of goat reared by cattle keepers was highly significant and positively related with their utility perception level.

Patil (2003) reported that the number of goat reared by goat keepers was highly significant and positively related with their utility perception level.

Salunke (2011) reported to positively and highly significant relation with utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) reported that the herd size of cattle reared by the cattle rearers was positively correlated with their utility perception level.

2.3.6 Annual income with utility perception

Dar (1995) reported that there was a positive relationship between annual income and utility perception of members of dairy co-operative about dairy management practices.

Kamble (1995) reported that there was positive and highly significant association between annual gross income and utility perception of poultry keepers about poultry management practices.

Bhosale (2000) observed that the significant relationship between annual gross income and utility perception level of respondents.

Patil (2003) observed that relationship between annual gross income and utility perception level of cattle keepers was statistically significant.

Salunke (2011) found positively and highly significant relationwith utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) observed that annual income of cattle rearer was found to be positively correlated with their utility perception level.

2.3.7 Land holding with utility perception

Kamble (1995) reported that there was a significant association between size of land holding and utility perception of poultry keepers about poultry management practices.

Bhosale (2000) reported that farm of respondents was highlysignificant and positively related with their utility perception level.

Patil (2003) revealed that farm size of respondents was highly significant and positively related with their utility perception level.

Salunke (2011) reported that land holding could not found any statistical significant relationship with utility perception of goat rearing practices.

Ainlawar (2012) revealed that farm size of cattle rearers was significant relationship and positively correlated with their utility perception level.

2.3.8 Social participation with utility perception

Kamble (1995) found positive and significant correlation between social participation and utility perception of poultry keepers about poultry management practices.

Patil (1995) reported that statistically significant association between social participation and utility perception of farmers about improved animal husbandry and dairy management practices.

Bhosale (2000) reported that social participation of goat keepers was highly significant and positively related with their utility perception level of improved cattle management practices.

Patil (2003) observed that social participation of goat keepers was highly significant and positively related with their utility perception level of improved goat management practices.

Salunke (2011) found positively and highly significant relation with utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) observed that social participation of cattle rearers was positively correlated with their utility perception level of improved cattle management practices.

2.3.9 Economic motivation with utility perception

2.3.10 Use of sources of information with utility perception

Kamble (1995) reported that significant correlation of sources of information in positive direction with utility perception of poultry management practices.

Shirolkar (1998) found that there was a positive and significant relationship between source of information and utility perception of farm women about dairy occupation.

Bhosale (2000) reported that use of information sources of cattle keepers was highly significant and positively related with their utility perception level.

Patil (2003) observed that use of information sources of cattle keepers was significant and positively related with their utility perception level.

Salunke 2011) reported positively and highly significant relation with utility perception about goat rearing practices at 0.01 per cent probability.

Ainlawar (2012) observed that use of information sources of cattle rearers was non significant and negatively correlated with their utility perception level.

2.4. To study the constraints faced by the Marathwadi buffalo rearers and obtain their suggestions

Phadtare (1987) reported the constraint in sheep rearing were inadequate pastures,attack of wild animals and thieves and lack of advanced utility perception in respect of breeding, feeding and management, constraint of marketing of their animals and animal products.

Suresh *et al.*(1987) reported that a majority (85.44 %) of the sheep and cattle farmers stated about the lack of grazing land facility due to strict forest rule, supply of inferior animals 85.04 per cent , lack of extension education activities 81.75 per cent, negligence of animals by veterinary personal 77.08 per cent as the constraint faced by them to a great extent, 66.66 per cent of

them indicated that destruction of fodder crops by wild animals and non availability of medicines nearby as the constraint faced by them to a great extent. Around 90.00 percent of the respondents expressed the difficulty in maintaining records as the constraints to a lesser extent of 66.66 per cent of the farmers and also complained about supply of non healthy sheep and cattle milk.

Bhosale (2000) reported that goat keepers were facing constraints with respect to lack of grazing land, lack of veterinary aids facility, non-availability and high cost of feed mixture, cheating by butchers and middle man and low market prices as expected.

Patil (2003) reported that a majority of the goat keepers stated about the lack of knowledge of improved breeds of cattle, storage of grazing land, destruction of forests due to browsing habit of cattle, constraint of wild predators like wolf, non availability of veterinarians during Dystokia and other health constraints, non-availability and high cost of concentrates in local market, butchers and middlemen creates chains results in low price for cattles in market and constraints about terms and conditions of financial institutions.

Salunke (2011) reported that majority (69.16 %) of goat rearers were reported to face the constraints in availability of fodder throughout the year and also in rainy season. availability of grazing to goats was also the major constraint faced by the 65.83 per cent of the goat rearers. 55.83 per cent of the goat rearers were facing the constraints about getting loan in time and the sufficient amount of loan. 35.83 per cent reported that the butchers and middleman create the chain and hence goat rearers get low price for their cattle. only 11.66 per cent of the goat rearers had the constraint of market near to village. 29.16 per cent of the goat rearers had the constraint of transportation of goats to sell the goats in big markets in big cities. 25.00 per cent reported about high cost requirement of veterinary aids. Out of total respondents, 20.83 per cent of the goat rearers were facing the constraint of high cost requirement for concentrates of cattle.

Ainlawar (2012) reported that majority (99.16%) of cattle rearers were reported that they face the constraints of non availability of fodder throughout

the year and also in rainy season. The availability of grazing to cattles was also the major constraint faced by the cent per cent of the cattle rearers. Most (97.50%) of the cattle rearers were facing the constraints about not getting loan in time and the sufficient amount of loan. Majority (58.33%) of the respondents had the constraints in getting veterinary services. Most (70.00%) of the cattle rearers reported that the butchers and middleman create the chain, hence cattle rearers get low price for their cattle. About 54.16 per cent of the cattle rearers had the constraint of market near to village. Out of total 52.50 per cent of the cattle rearers had the constraint of transportation of cattles to sell the cattles in big markets in big cities. Majority (76.67%) of cattle rearers reported about high cost requirement of veterinary aids. From all respondents 85.00 per cent of the cattle rearers were facing the constraint of high cost requirement for concentrates of cattle.

METHODOLOGY

Chapter III

METHODOLOGY

This chapter deals with the description pertaining to general information about the locale of study, selection of respondents, designing of an interview schedule, procedure and techniques followed and interpretation of data and measurement of concepts used in the study.

3.1 Area of study and its geography.

3.2 Research design.

3.3 Method of sampling.

3.4 Tools and techniques of data collection.

3.5 Variables and their empirical measurement.

3.6 Statistical analysis.

3.1 Locale of study and its geography

The present study was confined to Udgir , Nilanga,and Ausa talukas of Latur district in Marathwada region of Maharashtra state.

3.1.1 Salient features of Latur district

3.1.1.1 Physiography

The Latur district is in the South-Eastern part of Maharashtra. The district is situated between 18°50' and 18°75' North latitude and on 76°25' and 77°25' East longitude. The district is situated on the Maharashtra Karnataka State boundary. On the eastern side of Latur, Bidar district of Karnataka is situated whereas, Nanded is on the North-East side, Parbhani is on the Northern side. Beed is on the North-West and Osmanabad is on the West-South side.

The entire district is situated on the Balaghat Plateau, 540 to 638 meters from the mean sea level. The total area of this district is 7371 sq.km. Which is 2.40 per cent of Maharashtra State. According to Directorate of Census Operations in Maharashtra, the total population of Latur district is 2,45,5543 (2011 census) lies with major portion of this district with laterite-plateau. The district is divided in to two parts i.e. high hill and low hill area. There are ten tahsils in Latur district namely, Latur, Chakur, Renapur, Ahamadpur, Shirur (Anantpal), Jalkot, Udgir, Deoni, Nilanga and Ausa.

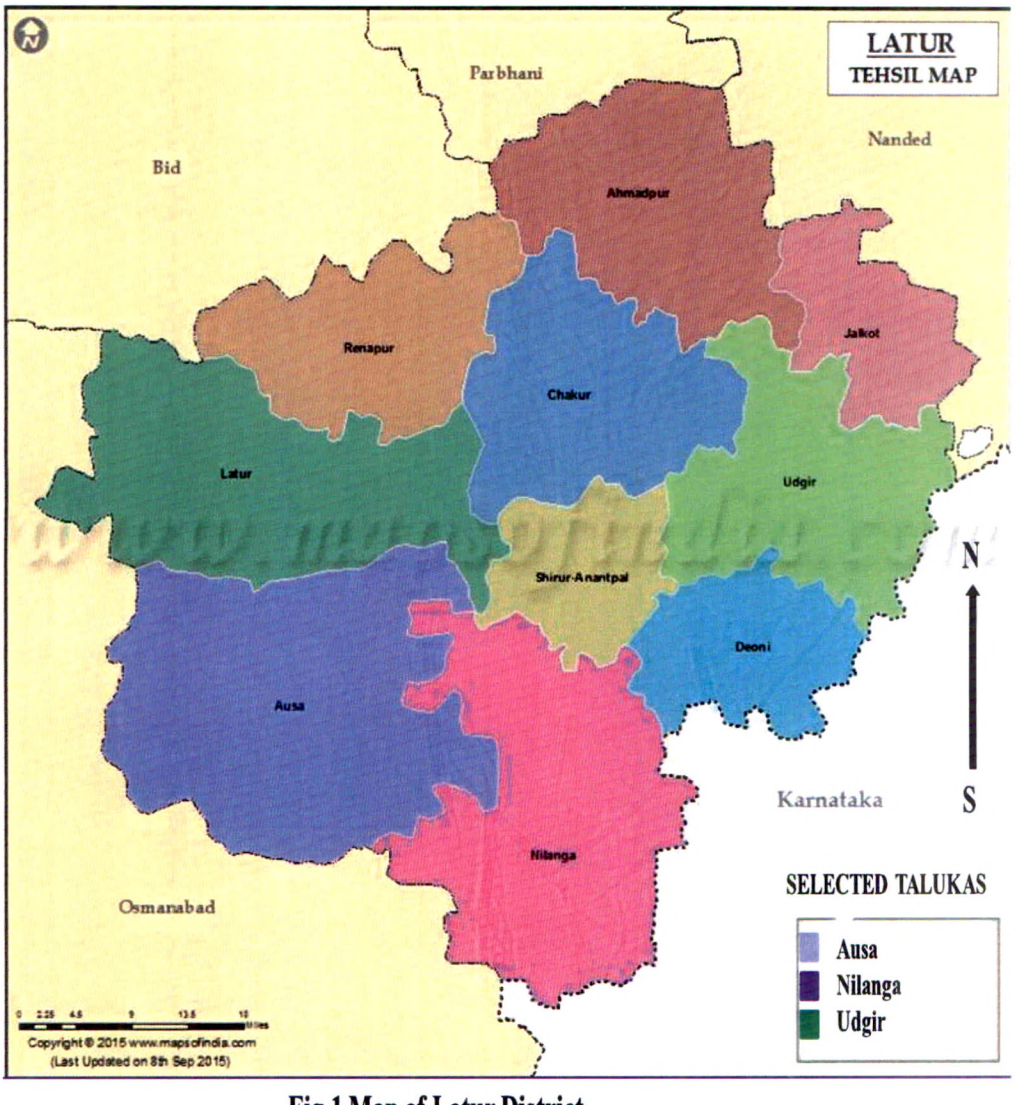


Fig.1 Map of Latur District

3.1.1.2 Soil

The soils of Latur district are laterite on plateau with an average height of 540 to 638 m above mean sea level. The soils of this district are medium black soils and light soils. It has slight slope towards South. The Manjara is the major river in the district which flows to the South-East.

3.1.1.3 Climate and rainfall

climate of the district is mostly cool and dry except during the South-West monsoon season. In summer, it is dry and hot and in winter dries and cool. Maximum temperature is 44°C in the month of May and minimum temperature is 11.9°C in the month of December. The rainfall recorded in the district reveals an uneven rainfall in different blocks of the district. The district receives rainfall mainly from South-West monsoon. Annual rainfall of the district is 700-800 mm.

3.1.1.4 Cropping pattern

Major *kharif* crops are *kharif* jowar, mung bean, urd bean, soybean, sunflower and pigeon pea whereas, major crops grown in *rabi* are sunflower, gram, wheat and *rabi* jowar. The major cash crops grown are sugarcane, cotton, pomegranate, mango and vegetables in some parts of district.

3.1.1.5 Cultural activities

The Hindus observe a variety of fasts, feasts and festivals throughout the year. The most important festivals common to all castes and sects in this district are Makar Sankranti, Dasara, Hanuman Jayanti, Ram Navami, Gudi Padva, Rakhi Pornima, Pola, Ganesh Chaturthi, Holi, Diwali, Vel Amavashya etc.

Amongst Buddhist, Jayanties of Gautam Buddha and Dr. Babasaheb Ambedkar are celebrated and amongst Muslim, different Ids are celebrated which includes Ramzan Eid, Bakri Eid, Moharum, etc.

3.1.1.5Buffalo population

Table 1 Talukawise population of Buffalo population in Latur district

Talukas of Latur district	Buffalo population
Ausa	31905
Nilanga	32074
Latur	38945
Udgir	27732
Chakur	23642
Ahamadpur	28085
Jalkot	12318
Shi. Anantpal	11679
Deoni	9851
Total	**232584**

(Source: 19th livestock sensus Maharashtra, India.2012.)

Table 2 shows the talukawise population of buffalo in Latur district. The buffalo population of Latur district is 232584.

3.2 Method of sampling

3.2.1 Selection of district

The study was conducted in Marathwada region, from this region Latur district was selected purposively for study because Latur district is having the considerable population of Marathwadi buffalo .

3.2.2 Selection of talukas

The selection of talukas were done from Latur district. There are ten talukas in Latur district . Three tahsils were selected purposively from latur district on the basis of maximum population of Marathwadi buffalo for research study on Marathwadi buffalo rearers .

3.2.3 Selection of villages

For the purpose of the study, four villages from each selected tahsil were purposively selected on the basis of maximum buffalo population. Total twelve villages selected from three tahsils namely Shahapur, Nagalgoan, Dongarshelki, Karadkhel, Shivani-kotal, Shedol, Gour (Aanandwadi), Tupadi Kinithote, Jaynagar Mahadevwadi and Kanheri .

3.2.4 Selection of respondents

A list of Marathwadi buffalo rearers from these twelve villages was obtained. Ten respondents from each village were selected randomly for the study comprising the total sample of 120 respondents.

3.2.5 Designing of interview schedule

An interview schedule was prepared on the basis of objectives of the study for data collection. The interview schedule which originally prepared was translated into Marathi language, so it can be easily understood by the Marathwadi buffalo rearers. For the sake of accuracy, the language of questions was kept simple and easy for the understanding of respondents. Questions on various personal aspects of buffalo rearers having possible correlation with the utility perception of buffalo rearing practices and Constraints faced by the respondents in adoption were included in interview schedule.

3.2.6 Pre-testing of schedule

The interview schedule was pre-tested before its finalization. For this purpose ten (10) respondents were selected which were from other villages that were not included in the study were interviewed. On the basis of pre-testing the interview schedule was developed by removing unnecessary questions and adding required questions, after making all changes, the interview schedule was finalized and multiplied in required copies for data collection.

3.2.7 Procedure used for data collection

The selected respondents were personally interviewed by the researcher for the study. An attempt was made to interview the buffalo rearers at the site of their fields to record responses spontaneously and easily. During the discussion, the questions were asked informally. The interview schedule guideline for collection of data, wherever supplementary questions were also asked to draw out data. For example while seeking information regarding utility perception about rearing practices of Marathwadi buffalo, the responses were verified by putting additional questions, which gave the idea about really what they know and how they utilize it. Thus possible efforts were made to get reliable data. The responses of the respondents were recorded at the time of

interview. Some of the comments, points and observations were also noted during interview related to buffalo development in the study area.

3.2.8 Compilation of data

The collected information through interview was transferred from the interview schedule to primary tables (master tables) and then to the secondary tables. Wherever necessary, the information in qualitative form was converted into quantitative form and computation of score was done. The qualified data was used to find out the nature of relationship between independent and dependent variables. The data was analyzed through statistical tools.

3.2.9 Research design

Ex-Post-facto approach will be used for the present study.

3.3 Variables and empirical measurements.

Sr. No.	Variables	Empirical Measurement
A.	**Independent variables**	
1.	Farming experience	Number of years spent in actual farming by respondent.
2.	Education	Formal education sought by respondent.
3.	Family size	Total number of members in respondent family.
4.	Occupation	Schedule was developed for the study.
5.	Herd size	Total no. of Marathwadi buffalo possessed by the buffalo owner.
6.	Annual income	Total earned income in rupees from all the sources by respondent family members.
7.	Land holding	Total area of land in hector possessed by the respondent.
8.	Social participation	Scale developed by Supe (2007) was used with slight modification.
9.	Economic motivation	Scale developed by Supe and Singh (1969)with slight modification was used.
10.	Use of Sources of information	Schedule was developed for the study
B	**Dependent variable**	
	Utility Perception	Schedule was developed for the study.

3.3.1 Independent variables

In the present study following personal characteristics of the respondents were studied.

3.3.1.1 Farming Experience

Farming experience of respondents in completed years at the time of interview was taken in to consideration. All the respondents were

classified into three categorieson the basis of Mean ± Standard Deviation as below

Sr.No.	Category	Years
1.	Low	Up to 9
2.	Medium	10 to 21
3.	High	22and above
	Mean = 15.72	**SD = 6.44**

3.3.1.2 Education

It was the level of formal education attained by the buffalo rearers. According, they were classified in the following five categories.

Sl.No.	Category	Education.
1.	Illiterat	Having no formal education
2.	can read & write only	Able to read and write.
2.	Primary education	Up to 4^{th} standard
3.	Secondary education	5^{th} and 10^{th} standard
4.	Higher secondary	11^{th} and 12^{th} standard
5.	College	Above 12^{th} standard
	Mean = 2. 69	**SD = 1.30**

3.3.1.3 Family size

It refers to the total number of member living together in a family of cattle rearers under a common roof having blood relation and sharing common food. According to the present concept of family size, the respondents were grouped into three categories by using mean.

Sl.No.	Category	No. of members
1.	Small	Up to 4 members
2.	Medium	5 to 8 members
3.	Big	9 members and above
	Mean = 6.55	**SD= 2.44**

3.3.1.4 Occupation

This gives the information about the profession to which an individual and his/her family belongs for earning livelihood. The scoring pattern for categorization of the respondents was as follows.

Sl.No.	Categories	Score
1.	Buffalo rearing	1
2.	Buffalo rearing + Labour	2
3.	Buffalo rearing + Farming	3
4.	Buffalo rearing + Labour + farming	4
5.	Buffalo rearing + Others	5
6.	Buffalo rearing + Labour + Others	6
7.	cattle rearing + Farming + Others	7
8.	cattle rearing + Labour + Farming + Others	8
	Mean = 3.94	**S D = 1.89**

3.3.1.5 Heard size of buffalo

Sl.No.	Category	Score
1.	Small	Up to 8 buffalo
2.	Medium	Between 9 to 20 cattles
3.	Big	21 cattles and above.
	Mean = 14.48	**SD = 6.63**

It refers to the total number of the cattle possessed by the buffalo rearers. The minimum number of cattle reared by the cattle rearers was 5 and maximum was 43. On the basis of cattles reared by the cattle rearers they were grouped into three categories based on mean ± standard deviation.

3.3.1.6 Annual income

It is the income earned from all the sources by family in a year. The minimum annual gross income of buffalo rearers was Rs. 4 laks and maximum was Rs.10 lacks On the basis of annual income the respondents they were grouped into three categories based on mean ± standard deviation.

Sl.No.	Category	Annual income (lacks.)
1.	Low income group	Up to 4
2.	Medium income group	5 to 8
3.	High income group	9 and bove
Mean = 6.67		**SD = 2.35**

3.3.1.7 Land Holding

Size of land holding refers to the total land an individual buffalo rearer possessed. The number of hectares of land owned by each respondent; family was considered as their size of land holding. Depending upon the farm size, the respondents were grouped into four categories using the criteria adopted by Ministry of Rural Development, GOI Circular No. 280-12/16/19-RD-III (Vol.II) dtd. 15 th November, 1991.

Sl. No.	Category	Land holding (ha)
1	Small farmers	Up to 2.00
2	Semi-medium farmers	2.01 to 4.00
3	Medium farmers	4.01 to 10.00
4	Big farmers	Above 10.01
	Mean = 6.53	**SD = 2.98**

3.3.1.8 Social participation

It is the participation of cattle rearers in various formal and informal organizations. Here score 'one' was assigned for membership holder and the total participation score of the respondents in the organization was worked out. The score range was from 'one' to maximum 'five' score. According to total score obtained, the respondents were grouped into following three categories by using formula mean ± standard deviation.

Sl.No.	Category	Score
1.	Low	Up to 1score
2.	Medium	Score 2 to 4
3.	High	Score 5 and above.
	Mean =3.01	**SD =1.46**

3.3.1.9 Economic motivation

It is defined as the occupational success in terms of profit maximization and the relative value placed by a farmer on economic ends. This variable is measured with the help of scale developed by Supe (2007). This scale consisted six items.

Of these six statements first five statements are positive and statement number six is negative. The responses are to be recorded on five point continuum ranging from strongly agree to strongly disagree.

The scoring procedure used is as follows.

Sl. No.	Particulars	Response				
		SA	A	UD	DA	SDA
1	Score for positive statement	5	4	3	2	1
2	Score for negative statement	1	2	3	4	5

SA=strongly agree, A=Agree, UD=Undecided, DA=Disagree, SDA= strongly disagree.

Considering the economic motivation score of the respondents , they can be grouped into three categories namely 'low' , 'medium' and 'high' by using mean and standard deviation.

Sl. No.	Categories	Score
1.	Low	Up to 15
2.	Medium	16 to 26
3.	High	Above 27
Mean = 21.12		**SD = 5.95**

3.3.1.10 Sources of information

It is defined as the degree to which respondents utilize the different sources of information for obtaining perception regarding cattle rearing

practices. Score 'two' was assigned for "frequent use" of information sources, score 'one' was assigned for use of media for "sometimes" and score 'zero' was assigned for "never" use of information sources. The obtained score ranges from minimum 8 to maximum 30. According to the total score obtained, the respondents were classified in to three categories by using formula ± standard deviation.

Sl.No.	Category	Score
1.	Less use	Up to 25 score
2.	Medium use	Score 26 to 33
3.	More use	34 and above.
	Mean = 30.8	**SD = 4.77**

3.3.2 Dependent variable

Dependent variable is that which vary with the independent variables. For the present study following was dependent variable.

3.3.2.1 Utility perception

It is awareness of individual with meaning. Total fifteen scientific statement were taken in to consideration. Score 'three' was assigned for agree with the statement and score 'two' was assigned with partially agree and score 'one' is disagree with statement. Mean was 30.30 and Standard deviation was 5.08. According to total score of respondents, they were grouped using formula mean ± Standard deviation in to three groups

Sl.No.	Category	Score
1.	Low	Up to 25
2.	Medium	Score 26 to 35
3.	High	Score 36 and above
	Mean = 30.30	**SD = 5.08**

3.4 Constraints faced by buffalo rearers in buffalo rearing

Here Constraints were taken as a reasons or causes that prohibited buffalo rearers in the utility perception of buffalo rearing practices. It was

determined by asking questions which were open ended and the reasons or causes which prohibited to buffalo rearers to non adoption of improved buffalo rearing practices were recorded. Open ended question technique was specially used to draw out real causes or reasons of low utility perception of buffalo rearers of improved management practices of buffalo rearing. This technique helped to score spontaneous response of respondents. The statements answered by the buffalo rearers were recorded and ranks were allowted on the basis of higher percentage. While compiling, statements with similar response were grouped together and presented in frequencies and percentage.

3.5 Statistical methods used

3.5.1 Frequency and percentage

Frequency and percentage were used for making simple comparisons. The frequency of the particular category was multiplied by hundred and divided by total number of respondents to get percentage.

3.5.2 Mean

Mean was calculated by summing all the individual score and dividing it by number of cases. The form

$$\overline{X} = \frac{\sum X}{N}$$

Where,

$\overline{X}$ = Arithmetic mean

$\sum$ = Sum of individual score

N = Number of cases.

3.5.3 Standard deviation

Standard deviation is a measure of variability calculated around mean. It was denoted by Greek letter

$$\delta = (S.D.) = \frac{\sqrt{N\sum X^2 - (\sum X)^2}}{N}$$

Where,

(S.D.) = Standard deviation

X^2 = Sum of square of 'X' series

$(X)^2$ = Square of summation of 'X' series

N = Number of respondents

3.5.4 Co-efficient of correlation

To find out relation between the selected independent and dependent variables "Karl Pearson's coefficient of correlation" 'r' was worked out by using the following formula.

$$r = \frac{\sum XY - \frac{(\sum X) - (\sum Y)}{n}}{\sqrt{\left[\frac{(\sum X^2 - (\sum X)^2}{n}\right] x \left[\frac{(\sum Y^2 - (\sum Y)^2}{n}\right]}}$$

Where,

N = Number of observations.

r = Coefficient of correlation

X = Value of independent variables

Y = Value of dependent variable.

3.6.5 Multiple regression analysis

The data were analyzed to know the combined effect of all the independent variables in explaining the variation in the dependent variable. Thus, influence of independent variable was found out by using the equation.

$$Y = a + b_1x_1 + b_2x_2 + \ldots\ldots + b_nx_n + \mu$$

Where,

Y = Dependent variable

x_1 = Independent variable

b_1 = Partial regression coefficient

a = Constant

n = Total number of variables

μ = Error

RESULTS

Chapter –IV

RESULTS

In this chapter the data collected during the investigation have been analyzed by using appropriate statistical treatments and the results are presented under the following heads.

4.1 Profile of Marathwadi buffalo rearers.

4.2 Utility perception about Marathwadi buffalo by the rearers.

4.3 Relationship between personal characteristics with utility perception of Marathwadi buffalo rearers.

4.4 Constraints faced by the Marathwadi buffalo rearers and obtain

4.1 Profile of buffalo rearers

One of the objectives of the study was to study the profile of buffalo rearers. profile includes farm experience, education, family size, occupation, heard size, annual income, land holding, social participation, economic motivation sources of information. These characteristics of buffalo rearers are presented in following table

4.1.1 Farming Experience

Farming experience of the respondents was grouped in Low experience, Medium experience and High experience.

Table No. 2 Distribution of Marathwadi buffalo rearers by their Farming Experience

(n =120)

Category	Frequency	Percentage
Low (up to 9 years)	14	11.67
Medium (10 to 21 years)	85	70.83
High (above 22years)	21	17.50
Total	**120**	**100.00**

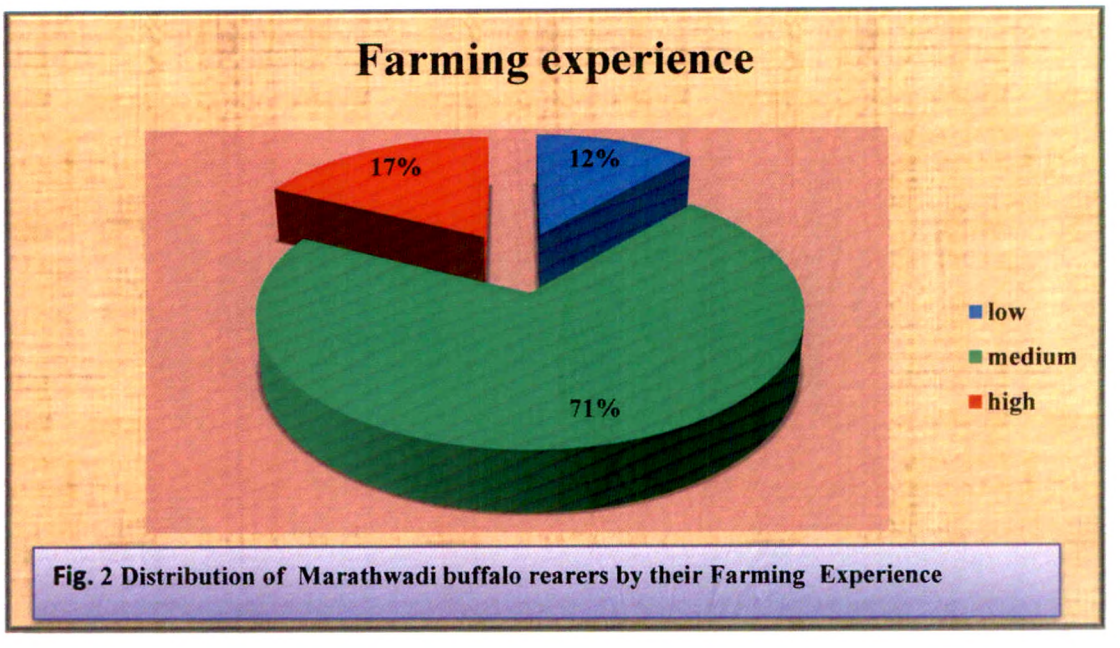


Fig. 2 Distribution of Marathwadi buffalo rearers by their Farming Experience

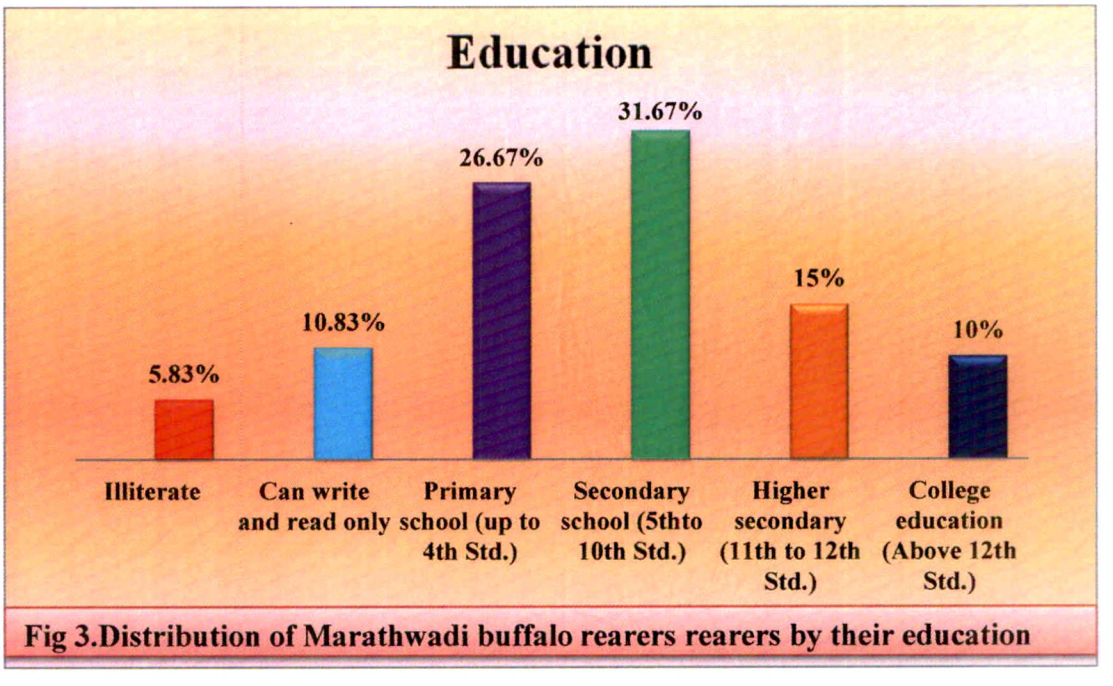


Fig 3.Distribution of Marathwadi buffalo rearers rearers by their education

Table 2 indicates that, 70.83 per cent buffalo rearers were from Medium experience category (10 to 21.00) followed by 17.50 per cent were from high experience group (up to 22 years) and remaining 11.67 per cent buffalo rearers belonges to low experience category (above 9 years).

4.1.2 Education

Education of the respondents grouped as illiterate, Can write and read only, primary education, college education, higher secondary, college education. It is shown in table.3

Table No. 3 Distribution of Marathwadi buffalo rearers by their education

Category	Frequency	Per cent
Illiterate	7	05.83
Can write and read only	13	10.83
Primary school (up to 4th Std.)	32	26.67
Secondary school (5thto 10th Std.)	38	31.67
Higher secondary (11th to 12th Std.)	18	15.00
College education (Above 12th Std.)	12	10.00
Total	**120**	**100.00**

Table 3 indicates that 31.67 per cent of buffalo rearers had received secondary education and 26.67 per cent had primary education,15.00 per cent had higher secondary education, 10.83 per cent had able to read and write only followed by 10.00 per cent were received the education up to college level and very few (05.83 %) of buffalo rearers had no education.

4.1.3 Family size

Family size of the respondents categorized into small size of family, medium size of family, big size of family. It is shown in table. 4

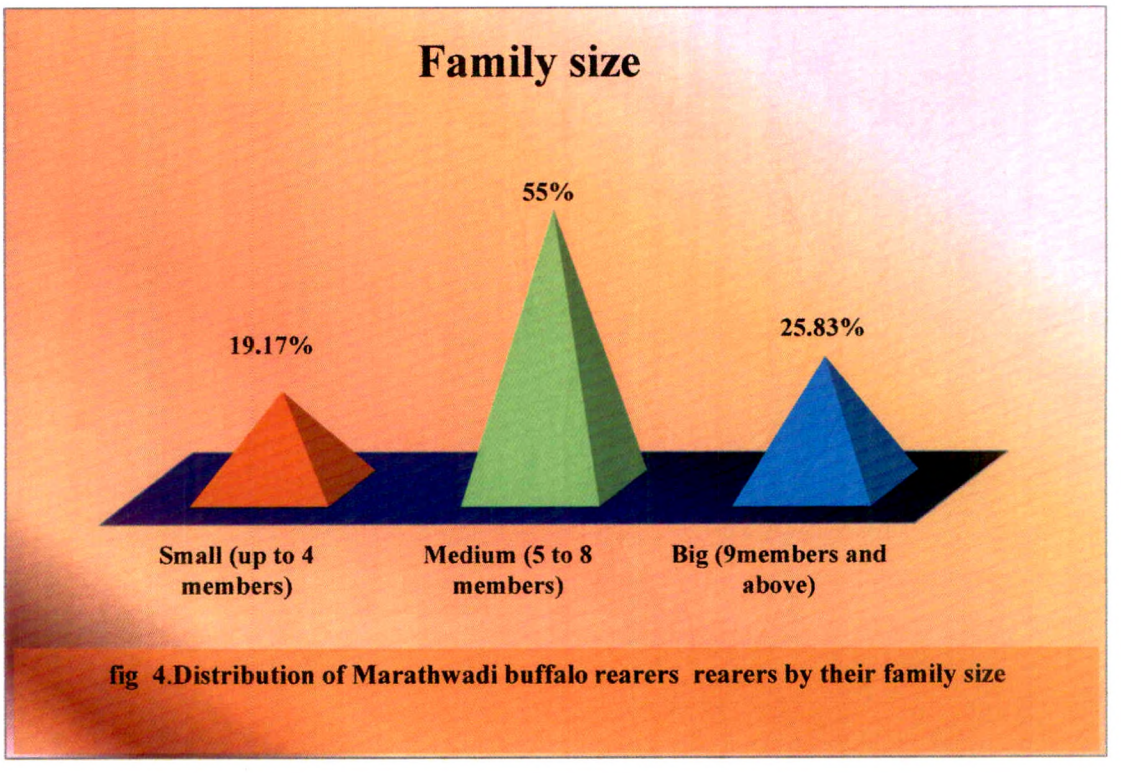


fig 4.Distribution of Marathwadi buffalo rearers rearers by their family size

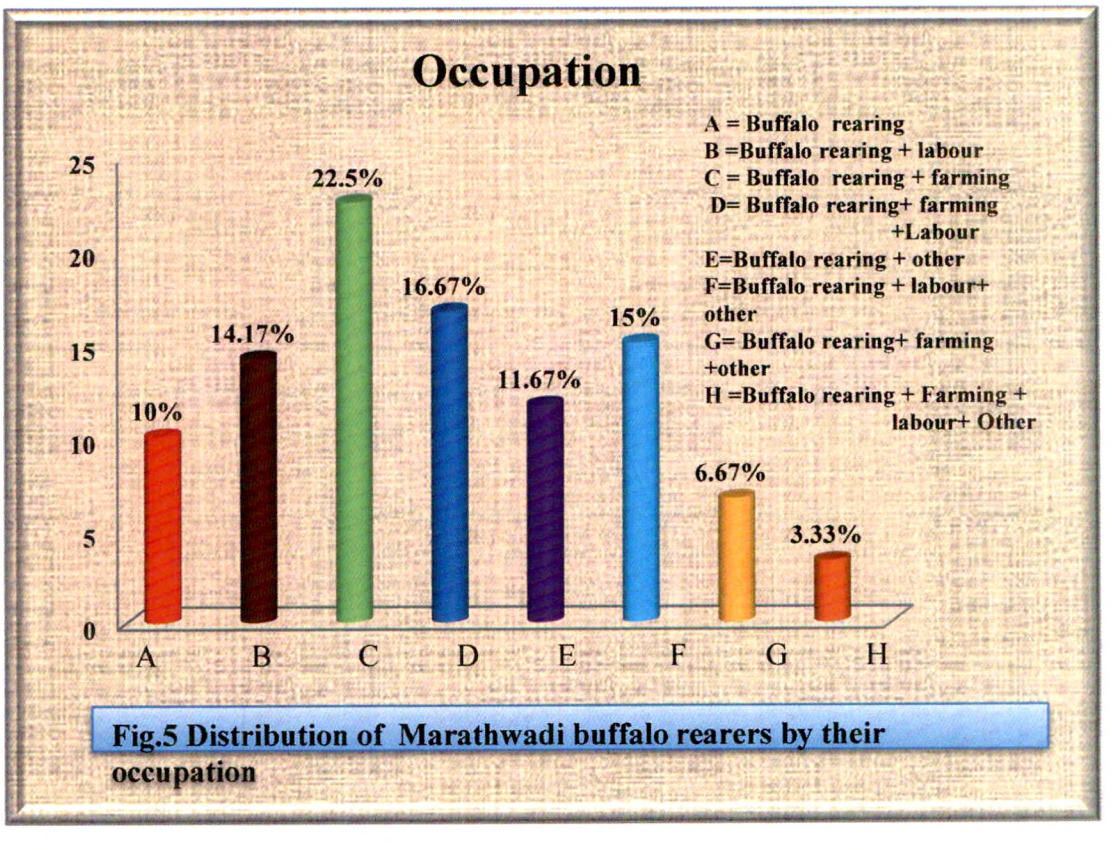


Fig.5 Distribution of Marathwadi buffalo rearers by their occupation

Table No. 4 Distribution of Marathwadi buffalo rearers rearers by their family size

(n =120)

Category	Frequency	Per cent
Small (up to 4 members)	23	19.17
Medium (5 to 8 members)	66	55.00
Big (9 members and above)	31	25.83
Total	**120**	**100.00**

The information presented in Table 4 indicated that 55.00 per cent buffalo rearers belonged to medium family size category followed by 25.83 per cent of the respondents belonged to large family size category and remaining 19.17 per cent of the buffalo rearers belonged to the small family size category.

4.1.4 Occupation

Occupation of the respondents was categorized in eight categories and shown in table. 5.

Table No 5 Distribution of Marathwadi buffalo rearers by their occupation **(n =120)**

Category	Frequency	Per cent
Buffalo rearing	12	10.00
Buffalo rearing + labour	17	14.17
Buffalo rearing + farming	27	22.50
Buffalo rearing+ farming + Labour	20	16.67
Buffalo rearing + others	14	11.67
Buffalo rearing + labour+ others	18	15.00
Buffalo rearing+ farming +others	8	6.67
Buffalo rearing + Farming + labour+ Others	4	3.33
Total	**120**	**100.00**

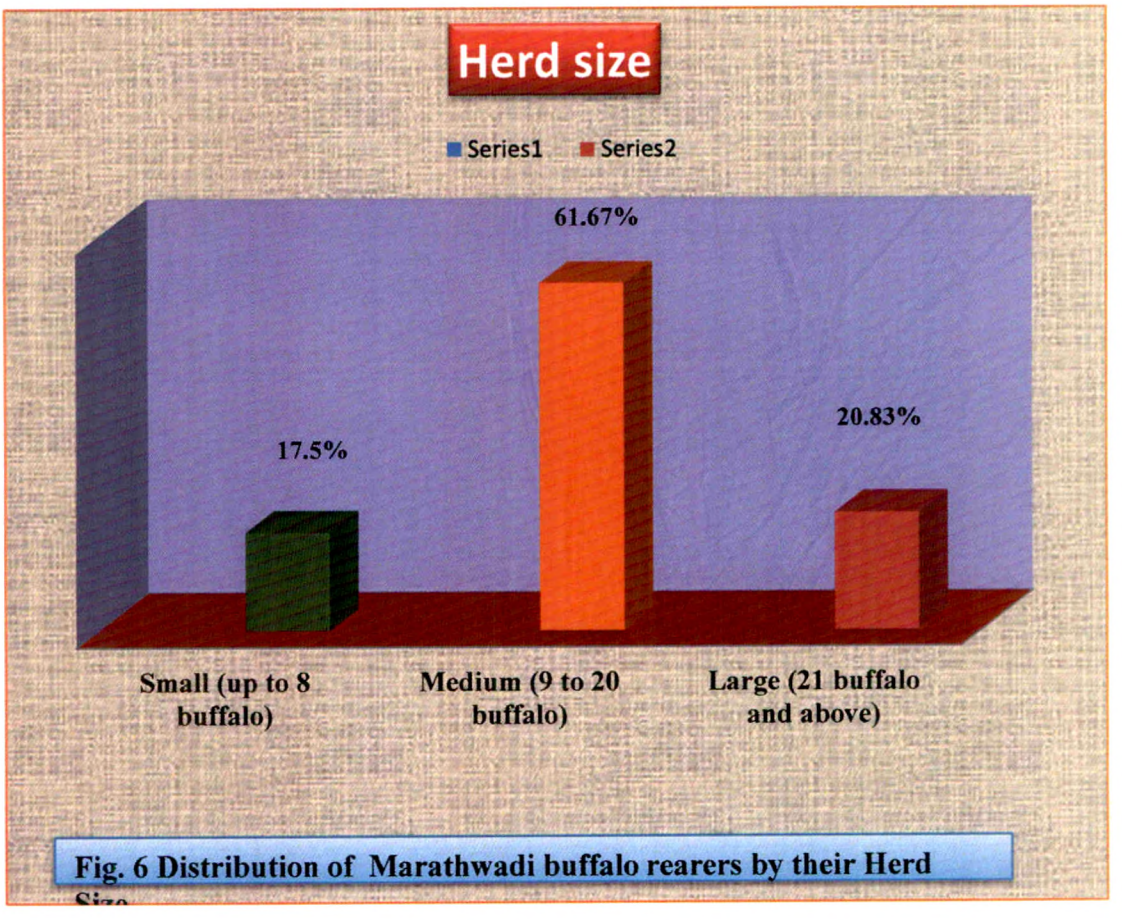


Fig. 6 Distribution of Marathwadi buffalo rearers by their Herd Size

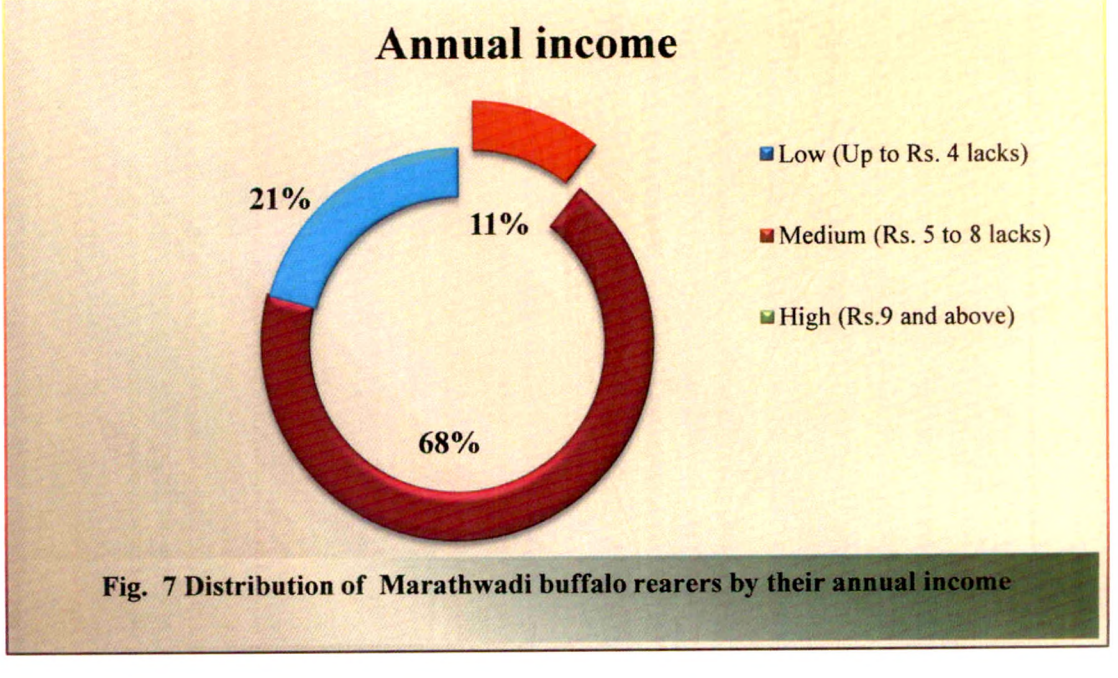


Fig. 7 Distribution of Marathwadi buffalo rearers by their annual income

The information indicates that majority (22.50 %) of the respondents were engaged in buffalo rearing + farming category, followed by 16.67 per cent and 15.00 per cent in buffalo rearing + farming +labour and buffalo rearing + labour + others categories. 14.17 per cent and 11.67 per cent respondents were engaged in the category of buffalo rearing + labour and buffalo rearing + others. The category buffalo rearing and buffalo rearing + farming + others holds 10.00 per cent and 6.67 per cent of the respondents each, and remaining 3.33 per cent of respondents engaged in buffalo rearing + labour + farming + others category.

4.1.5 Herd size

Table No. 6 Distribution of Marathwadi buffalo rearers by their Herd size

(n =120)

Category	Frequency	Per cent
Small (up to 8 buffalo)	21	17.50
Medium (9 to 20 buffalo)	74	61.67
Large (21 buffalo and above)	25	20.83
Total	**120**	**100.00**

Table 6 indicates that larger proportion (61.67 %) of the buffalo rearers had medium size of herd followed by 20.83 per cent had large herd size of buffalo and remaining 17.50 per cent had small herd size of buffalo.

4.1.6 Annual income

Annual income of the respondent categorized in low annual income, medium annual income, high annual income and it is shown in table.7

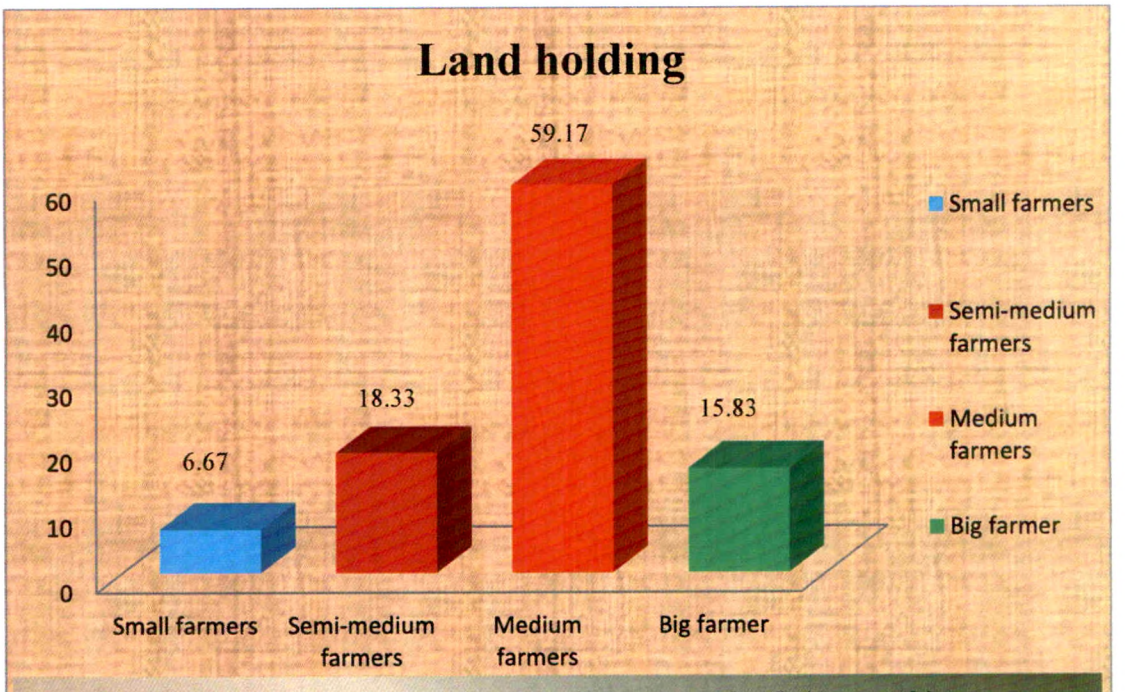


Fig. 8 Distribution of Marathwadi buffalo rearers by their annual income

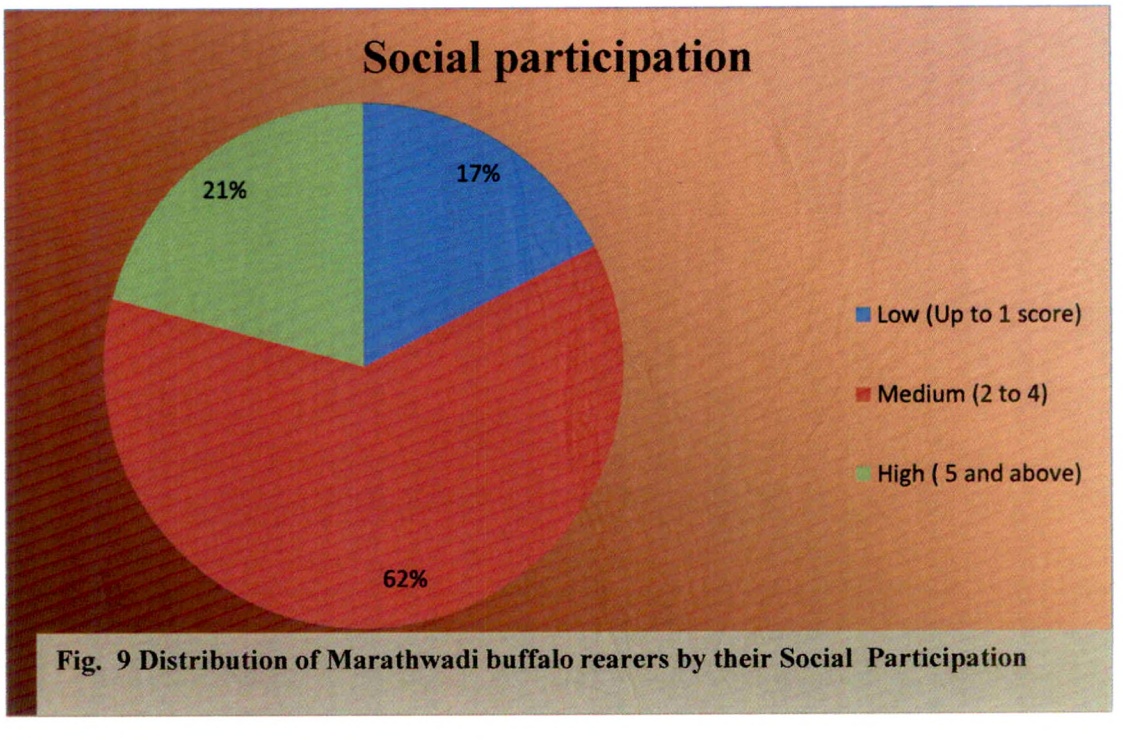


Fig. 9 Distribution of Marathwadi buffalo rearers by their Social Participation

Table No. 7 Distribution of Marathwadi buffalo rearers by their annual income **(n = 120)**

Category	Frequency	Per cent
Low (Up to Rs. 4 lacks)	13	10.83
Medium (Rs. 5 to 8 lacks)	82	68.33
High (Rs.9 and above)	25	20.84
Total	**120**	**100.00**

Table 7 indicated that most (68.33 %) of the buffalo rearers had medium level of annual income followed by 20.84 per cent had high level of annual income. Only 10.83 per cent had low level of annual income.

4.1.7 Land holding

Land holding of the respondents is divided in to landless, marginal farmers, small farmers, semi-medium farmers, medium farmers, big farmers. It is shown in table 8

Table No. 8 Distribution of Marathwadi buffalo rearersby their land holding

(n =120)

Sr.	Category	Frequency	Per cent
1.	Small farmers	8	6.67
2.	Semi-medium farmers	22	18.33
3.	Medium farmers	17	59.17
4.	Big farmer	18	15.83
	Total	**120**	**100.00**

Table 8 shows that majority (59.17%) of the buffalo rearers had medium land holding, followed by 18.33 per cent of the buffalo rearers belongs to semi-medium land holding, 15.83 per cent are big farmers, 6.67 per cent had small land holding.

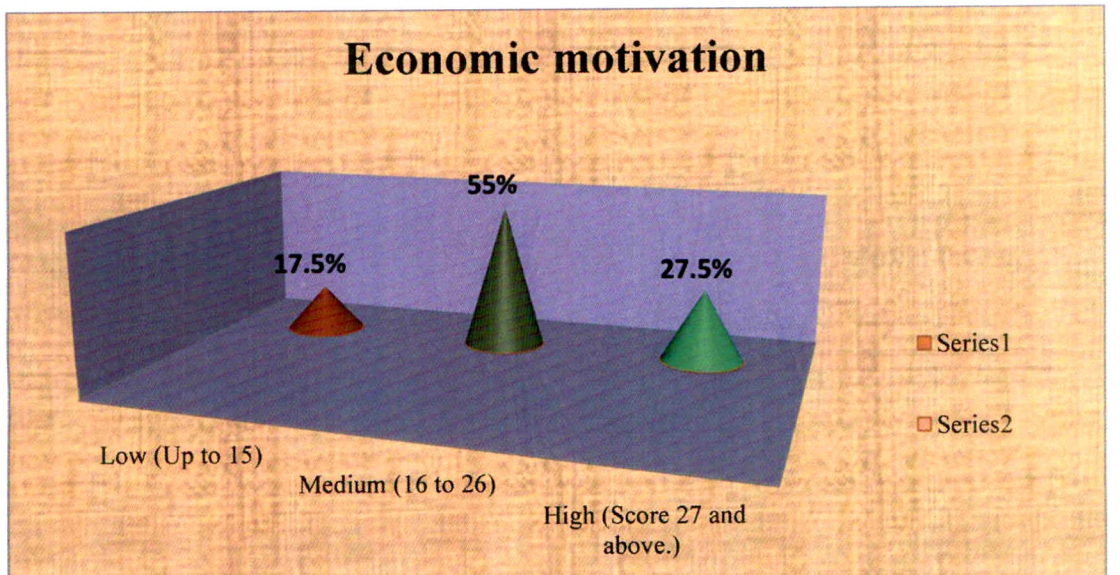


Fig. 10 Distribution of Marathwadi buffalo rearers by their Economic motivation

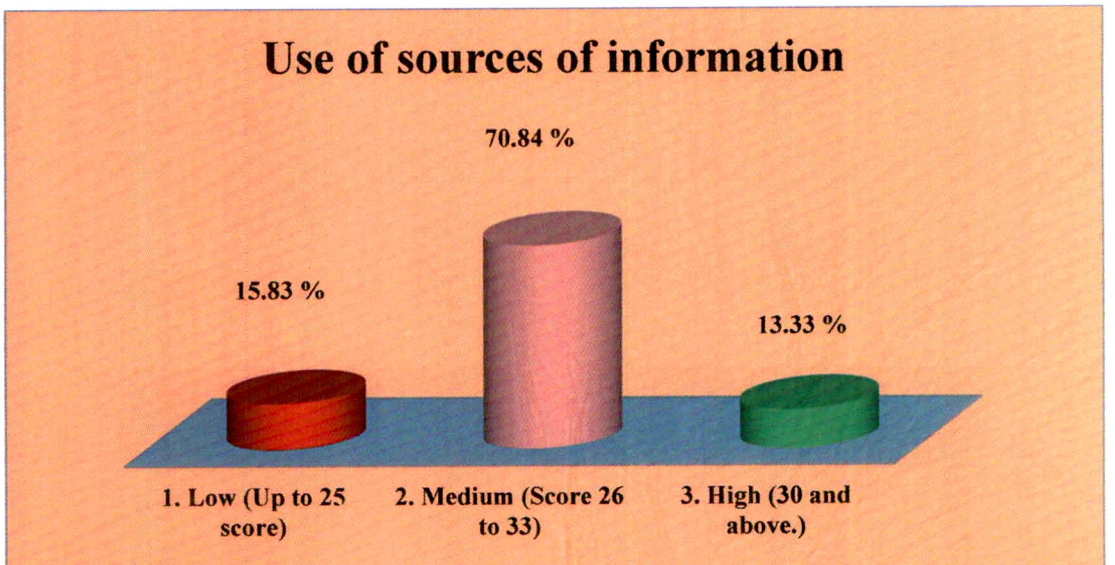


Fig. 11 Distribution of Marathwadi buffalo rearers by their Use of sources of information

4.1.8 Social participation

Social participation of the respondents grouped into low, medium, high category.

Table No. 9 Distribution of Marathwadi buffalo rearers by their Social Participation (n =120)

Category	Frequency	Per cent
Low (Up to 1 score)	21	17.50
Medium (2 to 4)	74	61.67
High (Score 5 and above.)	25	20.83
Total	**120**	**100.00**

Table 9 clearly shows that the buffalo rearers i.e. 61.67 per cent had medium social participation followed by 20.83 per cent had high social participation and remaining 17.50 per cent of them had low social participation.

4.1.9 Economic motivation

Economic motivation of the respondents grouped into low, medium, high category,

Table No. 10 Distribution of Marathwadi buffalo rearers by their Economic motivation (n = 120)

Category	Frequency	Per cent
Low (Up to 15)	21	17.50
Medium (16 to 26)	66	55.00
High (Score 27 and above.)	33	27.50
Total	**120**	**100.00**

Above table shows that the majority (55.00%) of respondents had medium economic motivation followed by 27.50 per cent belongs high category and remaining 21.00 per cent buffalo rearers shown low level of economic motivation.

4.1.10 Use of sources of information:

It was categorized in to less use, medium use, more uses of sources of information of the respondents shown in table. 11

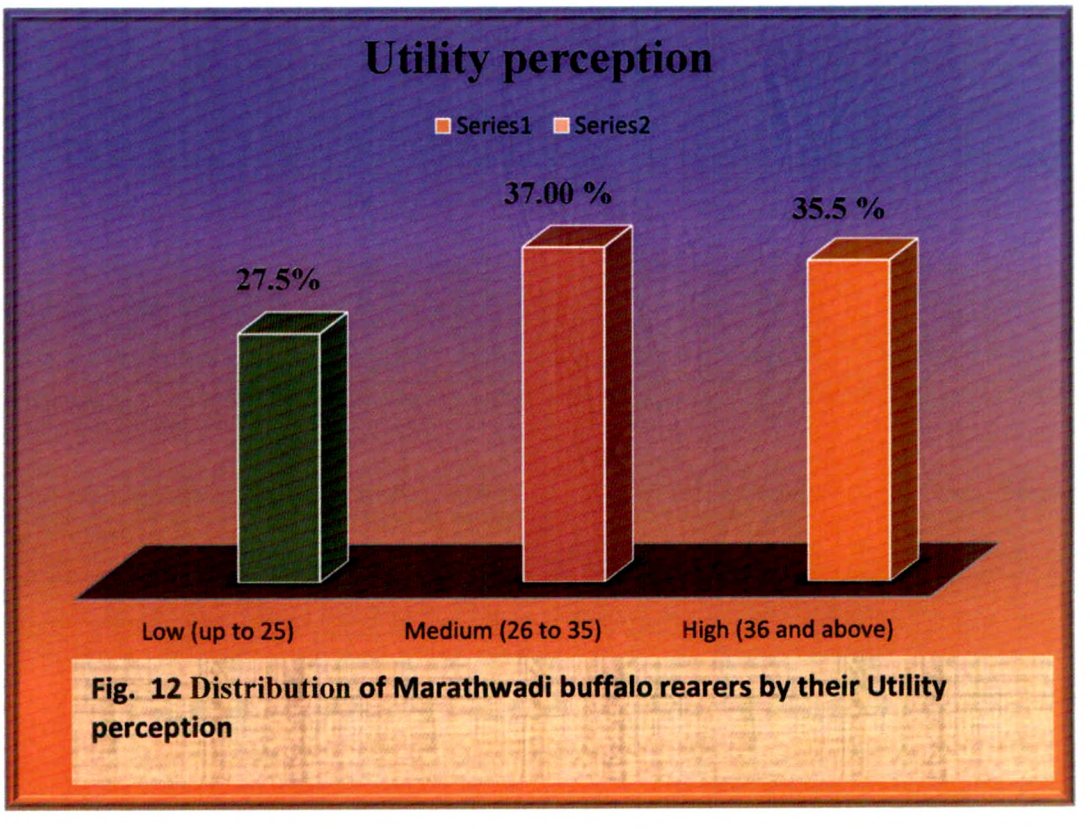


Fig. 12 Distribution of Marathwadi buffalo rearers by their Utility perception

Table No. 11 Distribution of Marathwadi buffalo rearers by their use of sources of information

(n=120)

Category	Frequency	Per cent
1. Low (Up to 25 score)	16	13.33
2. Medium (Score 26 to 33)	85	73.34
3. High (34 and above.)	16	13.33
Total	**120**	**100.00**

Table 11 indicates that larger proportion (73.34%) of the respondents had medium use of sources of information followed by equal per cent(13.33 %) per cent of the buffalo rearers had low and use of sources of information.

4.2 Utility perception of Marathwadi buffalo rearers about recommended buffalo rearing practices

Total fifteen scientific statements were taken in to consideration. Analyzed data pertaining to practice wise utility perception of Marathwadi buffalo rearers have been presented in table.12

Table No. 12 Utility perception of Marathwadi buffalo rearers rearers

(n=120)

Sr.No.	Statements	Agree Frequency (Percentage)	Partial agree Frequency (Percentage)	Disagree Frequency (Percentage)
1.	Initial investment is low for rearing of Marathwadi buffalo.	38 (31.66)	45 (37.50)	37 (30.83)
2.	Marathwadi buffalos are more efficient for milk production.	19 (10.83)	48 (40.00)	53 (44.17)
3.	Marathwadi buffalos are suitable for rearing in any low or high temperate.	70 (58.33)	45 (37.50)	05 (4.17)
4.	Marathwadi buffalos require special type of feed.	31 (25.83)	50 (41.67)	39 (32.50)
5.	Marathwadi buffalos having high disease resistance power so have less percentage of diseases	75 (62.50)	39 (32.50)	06 (05.00)
6.	Calving age of Marathwadi buffalo is earlier than other indigenous buffalo.	04 (3.33)	53 (44.17)	63 (52.50)
7.	Dry period for Marathwadi buffalo is minimum as compare with other indigenous buffalo.	08 (6.66)	59 (19.17)	53 (44.17)
8.	Daily milk production of Marathwadi buffalos is higher than other indigenous buffalos of Marathwada.	79 (65.84)	37 (30.83)	04 (3.33)
9.	Fat percentage in milk of Marathwadi buffalo is higher than other indigenous breed of Marathwada.	02 (01.67)	26 (21.66)	92 (76.67)

10.	Milk of marathwadi buffalo have more price than other buffalo.	07 (5.83)	37 (30.84)	76 (63.33)
11.	Marathwadi buffalos are suitable breed for rearing in drought prone area.	103 (85.83)	16 (13.33)	01 (00.84)
12.	Daily cow dung production of Marathwadi buffalo is 10 to 12 kg.	111 (92.40)	07 (05.83)	02 (01.67)
13.	Marathwadi buffalos are more demanded for milk production purpose than other indigenous buffalos of Marathwada.	45 (37.50)	25 (20.83)	50 (41.67)
14.	Average milking period of Marathwadi buffalo is 300 days	78 (65.00)	31 (25.83)	11 (09.17)
15.	In rearing marathwadi buffalo high profit in low investment.	53 (44.17)	36 (30.00)	31 (25.83)

In table 12 shows that most of the respondents were having utility perception of marathwadi buffalo i.e. Initial investment is low for rearing of Marathwadi buffalo 31.66 per cent. Marathwadi buffalos are more efficient for milk production 10.83 per cent. Marathwadi buffalos are suitable for rearing in any low or high temperature 58.33 per cent. Marathwadi buffalos require special type of feed 25.83 per cent. Marathwadi buffalos having high disease resistance power so have less percentage of diseases 62.50 per cent. Calving age of Marathwadi buffalo is earlier than other indigenous buffalo 3.33 per cent. Dry period for Marathwadi buffalo is minimum as compare with other indigenous buffalo 6.66 per cent. Daily milk production of Marathwadi buffalos is higher than other indigenous buffalos of Marathwada 65.84 per cent.

Fat percentage in milk of Marathwadi buffalo is higher than otherindigenous breed of Marathwada 1.67 per cent. Milk of marathwadi buffalo have more price than other buffalo 05.83 per cent .Marathwadi buffalos are suitable breed for rearing in

drought prone area 85.93 per cent. Daily cow dung production of Marathwadi buffalo is 10 to 12 kg. 92.40 per cent. Marathwadi buffalos are more demanded for milk production purpose than other indigenous buffalos of Marathwada 37.50 per cent. Average milking period of Marathwadi buffalo is 300 days 65.00 per cent In rearing marathwadi buffalo high profit in low investment 44.17 per cent.

Table No. 13 Distribution of the of Marathwadi buffalo rearers by their Utility perception (n=120)

Category	Frequency	percentage
Low (up to 25)	14	11.67
Medium (26 to 35)	89	74.17
High (36 and above)	17	14.16
Total	**120**	**100.00**

Table 13 indicates that majority (74.17%)of the buffalo rearers was observed to be in medium level of utility perception category followed by high (14.16 %)and low (11.67 %) level of utility perception category.

4.3 Relationship of utility perception with their profile of buffalo rearing practices

In the present study, an attempt was made to find out the relationship between the selected attributes of buffalo rearers with their level of utility perception. To ascertain the relationship, coefficient of correlation (r) was worked out. The data on this respect is presented in table

Table No. 14 Relationship between the selected independent variables and utility perception.

Sr.No.	Independent variables	Utility perception corrlation Coefficient (r)
1.	Farming Experience	0.229024*
2.	Education	0.274640**
3.	Family size	0.236528*
4.	occupation	0.200658*
5.	Herd size	0.261740**
6.	Annual income	0.224970*
7.	Land holding	0.272035**
8	Social participation	0.229053*
9.	Economic motivation	0.210408*
10	Use of Sources of information	0.570770**

It is observed from table that farmimg experience, family size, occupation, Annual income, Social participation and Economic motivation found to be positively significant relation with utility perception about buffalo rearing practices at 0.05 per cent probability. However, Variable education, herd size, land holding and Use of Sources of information found to be positive and highly significant relation with utility perception about buffalo rearing practices at 0.01 per cent probability.

4.3.1 Farm Experience with utility perception

It was observed that farm experience of the buffalo rearers was found to have positively significant relationship with their utility perception about buffalo rearing practices.

4.3.2 Education with utility perception

The education of the buffalo keepers observed to be positively correlated hightly significant with their utility perception level.

4.3.3 Family size with utility perception

The relationship between family size of buffalo keepers and their was found to be significant and positively correlated with their utility perception level.

4.3.4 Occupation with utility perception

The occupation of buffalo rearers were found to be significant and positively correlated with their utility perception level.

4.3.5 Herd size with utility perception

The number of buffalo reared by the buffalo rearers was positively correlated and highly significant with their utility perception level.

4.3.6 Annual income with utility perception

It was observed that annual income of buffalo rearer was found to be positively correlated and significant with their utility perception level.

4.3.7 Land holding with utility perception

It was revealed that farm size of buffalo rearers was highly significant relationship and positively correlated with their utility perception level.

4.3.8 Social participation with utility perception

It was observed that social participation of buffalo rearers was positively significant with their utility perception level of improved buffalo management practices. Buffalo rearers with good social participation have contact with other people and thereby they get an opportunity to share ideas and experiences.

4.3.9 Economic motivation with utility perception

It was revealed that economic motivation of buffalo rearers was highly significant relationship and positively correlated with their utility perception level.

4.3.10 Use of sources of information with utility perception

It was observed that use of information sources of buffalo rearers was highly significant and positively correlated with their utility perception level.

4.4 Constraints faced by Marathwadi buffalo rearers in buffalo rearing.

Table No. 16 Constraints faced by Marathwadi buffalo rearers in buffalo rearing practices

(n=120)

Sr.No	Constraints	Frequency	Percentage	Rank
1.	Less area of grazing land	120	100.00	I
2.	Shortage of fodder	120	100.00	II
3.	Constraints in getting scientific advice as per need	117	97.50	VI
4.	Constraints in getting needed veterinarian services	119	99.16	III
5.	Constraints in getting sufficient and timely availability of loan	118	98.33	IV
6.	Constraints in getting good price to buffalo in market	118	98.33	V
7.	Non availability of market near to village	105	87.50	VIII
8.	Constraint of transportation	106	88.33	VII
9.	Constraint of high cost requirement for veterinary aids	97	80.83	X
10.	Constraint of high cost requirement for concentrates of buffalo	104	86.67	IX

Table 16 indicates that majority (100.00%) of Marathwadi buffalo rearers reported the constraints in shortage of grazing land throughout the year and also in rainy season to inadequate rainfall science last to years. As regards to the shortage of fodder to buffalos was also the major constraint faced by the 100 per cent of the buffalo rearers. The 99.16 per cent of the respondents had the constraints in getting veterinarian services, 97.50 per cent of the respondents had the constraints in getting scientific advice as per need, as

follows 98.33 per cent of the buffalo rearers were facing the constraints about getting loan in time and the sufficient amount of loan.

Most (98.33%) of the buffalo rearers reported that the butchers and middleman create the chain and hence buffalo rearers get low price for their buffalo.Among all respondents 87.50 per cent of the buffalo rearers had the constraint of market near to village.Out of all the rearers 88.33 per cent of the buffalo rearers had the constraint of transportation of Maratheadi buffalos to sell the Maratheadi buffalos in big markets in big cities. As regards majority of Maratheadi buffalo rearers, 80.83 per cent reported about high cost requirement of veterinary aids.Among all the respondents 86.67 per cent of the buffalo rearers were facing the constraint of high cost requirement for concentrates of buffalo.

4.5 Suggestions obtained from Marathwadi buffalo rearers

Table No. 17 Suggestions obtained from Marathwadi buffalo rearers:

(n=120)

Sr.No.	Suggestion	Freq.	Percentage	Rank
1	Reserved grazing land is to be made.	50	41.66	XI
2	Fodder should be provide by government through 'chara-chavani'	100	83.33	IV
3	Loan should be provided on time by Government.	80	66.66	VII
4	Suitable market facility needed for selling of cattles.	60	50.00	IX
5	Need of proper marketing while selling of cattles to get suitable price.	105	87.50	III
6	Free Medicines should be provided by Government.	97	80.83	V
7	Prices of Kadabi are to be reduced.	115	95.83	I
8	Medical facility should be provided in every village.	87	72.50	IV
9	Road and transportation facility should be made for transportation of cattles.	60	50.00	X
10	Cost of fodder should be reduced.	77	64.16	VIII
11	Prices of succulent fodder should be reduced.	109	90.16	II

Table No. 17 indicated that majority (95.83 %) of the respondents was suggested to reduce the prices of Kadabi. Followed by 90.16 per cent

respondents was suggest prices of succulent fodder should be reduced. Need of proper marketing while selling of cattles to get suitable price suggested by 87.50 per cent respondants. 83.33 per cent respondents suggested to fodder should be provided by Government through Chara chavni. About 80.83 per cent respondents suggested that to provide free medicine by the government. Medical facility should be provided in every village was suggested by 72.50 per cent respondents. Among all respondents 66.66 per cent suggested that loan should be provided on time by Government. 64.16 per cent respondents was suggested to reduce cost of kadabi.50 per cent respondents suggested that to provide road and transport facility to every village. 41.66 per cent rearers was suggested to increase grazing area and reserve the land as a grazing land.

DISCUSSION

Chapter V

DISCUSSION

The study was conducted to appraise the utility perception of Marathwadi buffalo rearers about improved buffalo rearing practices. The study attempted to know profile of the respondents engaged in buffalo rearing. The chapter deals with the discussion of results in the light of investigation presentation under the following heads.

5.1 Profile of Marathwadi buffalo rearers

5.2 Utility perception of Marathwadi buffalo by the rearers

5.3 Relationship between profile with their utility perception of Marathwadi buffalo rearing practices

5.4 Constraints faced by the Marathwadi buffalo rearers

5.1 Personal characteristics of buffalo rearers

5.1.1 Farming Experience

It was revealed that majority (70.83%) of the buffalo rearers were from were from medium experience category followed by high experience category 17.50 per cent and low experience category 11.67 per cent respectively.

5.1.2 Education

It was indicated that 31.67 per cent of buffalo rearers had received secondary education and 26.67 per cent had primary education,15.00 per cent had higher secondary education, 10.83 per cent had able to read and write only followed by 10.00 per cent were received the education up to college level and very few (05.83 %) of buffalo rearers had no education. The reason for literacy that most of the respondents were not educated higher secondary school level followed by secondary and college level might be due to not availability of better education facilities in village. These findings are as similar as quoted by pawar (2013).

5.1.3 Family size

It was clearly pointed out that 55.00 per cent buffalo rearers belonged to medium family size category followed by 25.83 per cent of the respondents belonged to large family size category and remaining 19.17 per cent of the buffalo rearers belonged to the small family size category.

The fact might be due to forward outlook of farmers about the family planning there by keeping small family size. Another reason might be due social changes and love for keeping individuality of new generation rather than to live together in joint family.

5.1.4 Occupation

The information indicates that majority (22.50 %) of the respondents were engaged in buffalo rearing + farming category, followed by 16.67 per cent and 15.00 per cent in buffalo rearing + farming + labour and buffalo rearing + labour + others categories respectively. Only 14.17 and 11.67 per cent respondents were engaged in the category of buffalo rearing + labour and buffalo rearing + other. The category buffalo rearing and buffalo rearing + farming + other holds 10.00 per cent and 6.67 per cent of the respondents each, and remaining 3.33 per cent of respondents engaged in buffalo rearing + labour + farming + other category.

5.1.5 Herd size

It was seen that larger proportion (61.67 %) of the buffalo rearers had medium size of herd followed by 20.83 per cent had large herd size of buffalo and remaining 17.50 per cent had small herd size of buffalo. The probable reason might be that small and marginal farmer rear buffalos in small to medium quantity as a subsidiary enterprise. These findings are in line with the Ainalawar (2012).

5.1.6 Annual income

It was observed that most (68.34 %) of the buffalo rearers had medium level of annual income followed by 20.83 per cent had high level of annual

income. Only (10.83%)had low level of annual income. High category of former is similar to Ainalawar (2012).

This might be due to the reason that buffalo keepers possessed rainfed land holding and get low price in local market for their buffalo.

5.1.4 Land holding

It was revealed that majority (59.17 %) of the buffalo rearers had medium land holding followed by 18.33 per cent had semi-medium land holding and 15.83 per cent of buffalo rearers had big land holding. Remaining 6.67 per cent of the buffalo rearers belonges to small land holding.

This might be due to division in the family. The land was being fragmented and another reason that increasing population on land. This results into increasing in number of small and marginal farmers. Maximum fragmentation decreases the farm size. Majority of the respondents were possessing joint family but having small land holding. It thus proved that division might be the reason for the small land holding.The same finding is supported by Patil (2003) and Salunke (2011) Ainalawar (2012).

5.1.7 Social participation

It was observed that majority (61.67%) of the buffalo rearers had medium social participation followed by 17.50 per cent had high social participation and remaining 20.83 per cent of them had low social participation.

This might be due to the reason that buffalo rearers were from drought prone areas where limited number of social and economical organization are prevalent. Ignorance might be other reason for low social participation. These findings are in line with the findings of Mane (2001), Rakshe (2002), Patil (2003) and Salunke (2011) Ainalawar (2012).

5.1.8 Economic motivation

It was revealed that the majority (55.00 %) of respondants had medium economic motivation followed by 27.50 per cent belongs high level category and remaining 17.50 per cent buffalo rearers shown low level of economic motivation.

5.1.9 Use of sources of information

It was revealed that larger proportion (73.34 %) of the respondents had medium use of sources of information followed by equal percentage of (13.33%) of the buffalo rearers had low and high use of sources of information.

This might be due to availability of more sources of information about improved buffalo rearing practices.

5.2 Utility perception of Marathwadi buffalo by the rearers

It was observed that majority (74.17 %) of the buffalo rearers was observed in medium level of utility perception category followed by high category (14.16%) per cent and low category (11.67 %) per cent level of utility perception.

It can be said that the utility perception level of the majority of respondents were nearly satisfactory. The medium level of utility perception might be due to the fact that farmers might not have been exposed totally to different information sources. It might be due to their ignorance tendency towards different information sources.

5.3 Relationship of utility perception with their profile of buffalo rearing Practices

5.3.1 Farm Experience with utility perception

It was observed that farm experience of the buffalo rearers was found to have positively significant relationship with their utility perception about buffalo rearing practices.

It means that buffalo rearers with advanced farm experience were having less utility perception and the high buffalo rearing experience having more utility perception. This may be because high experienced buffalo rearers are more exposed to information sources and more contacts with extension personnel and economically ambitious. It increases the knowledge of the buffalo rearers which leads to increase in utility perception.

5.3.2 Education with utility perception

The education of the buffalo keepers observed to be positively correlated hightly significant with their utility perception level. The probable reason might be that more the education more is the utility perception of buffalo rearers of the buffalo rearers as education expands horizons of knowledge

5.3.3 Family size with utility perception

The relationship between family size of buffalo keepers and their was found to be significant and positively correlated with their utility perception level. The probable reason may be that more number of family members with more sharing of knowledge leads to increased utility perception and more members in family may influence the utility perception level of the head of the family.

5.3.4 Occupation with utility perception

The occupation of buffalo rearers were found to be significant and positively correlated with their utility perception level. It might be due to diversified occupations of buffalo rearers. The buffalo rearers which are have different enterprises might be influencing the utility perception of buffalo rearers.

5.3.5 Herd size with utility perception

The number of buffalo reared by the buffalo rearers was positively correlated and highly significant with their utility perception level.

A large herd size might have completed the buffalo rearers to adopt more advanced technology. In order to meet the need and solve the Constraint on buffalo management, such rearers might have tried to acquire more knowledge which helps in increasing the utility perception of buffalo rearers.

5.3.6 Annual income with utility perception

It was observed that annual income of buffalo rearer was found to be positively correlated and significant with their utility perception level. Farmers with better economic position are capable of making investment in the improved livestock which is capital intensive and probably this might be reason that they

were found to have more knowledge that's why they have more utility perception level.

5.3.7 Land holding with utility perception

It was revealed that farm size of buffalo rearers was highly significant relationship and positively correlated with their utility perception level. It might be due to the majority of the selected buffalo rearers possess marginal and small land holding and medium annual income hence not influenced by different activities which prevailing to increase the utility perception about different enterprises as the large land holding farmers get influenced by different programmers.

5.3.8 Social participation with utility perception

It was observed that social participation of buffalo rearers was positively significant with their utility perception level of improved buffalo management practices. Buffalo rearers with good social participation have contact with other people and thereby they get an opportunity to share ideas and experiences.

5.3.9 Economic motivation with utility perception

It was revealed that economic motivation of buffalo rearers was highly significant relationship and positively correlated with their utility perception level.

5.3.10 Use of sources of information with utility perception

It was observed that use of information sources of buffalo rearers was highly significant and positively correlated with their utility perception level. More use of different information sources and channels helps an individual to acquire new knowledge and helps in increasing utility perception.

5.4 Constraints faced by the Marathwadi buffalo rearers

It was indicated that all (100.00 %) of the marathwadi buffalo rearers reported the constraints in shortage of grazing land and shortage of fodder due to less rainfall since last three years. The second most major constraints (99.16 %) was regarding in getting needed veterinarian services. 97.50 per cent of the respondents had the constraints in getting scientific advice as per need. Constraints in getting sufficient and timely availability of loan and good price of buffalo in

market were expressed by 98.33 per cent of the respondants. The other constraints like transportation (88.33 %), non-availability of market near the villages (87.50%), high cost of requirement for veterinary aids (80.83 %) were expressed by marathwadi buffalo rearers.

These findings are in line with the Ainalawar (2012).

5.4 Suggestions obtained by Marathwadi buffalo rearers

It was clear that majority (95.83 %) of the respondents was suggested to reduce the prices of Kadabi. Followed by 90.16 per cent respondents was suggest prices of succulent fodder should be reduced. Need of proper marketing while selling of cattles to get suitable price suggested by 87.50 per cent respondants. 83.33 per cent respondents suggested to fodder should be provided by Government through Chara chavni. About 80.83 per cent respondents suggested that to provide free medicine by the government. Medical facility should be provided in every village was suggested by 72.50 per cent respondents. Among all respondents 66.66 per cent suggested that loan should be provided on time by Government. 64.16 per cent respondents was suggested to reduce cost of kadabi.50 per cent respondents suggested that to provide riad and transport facility to every village. 41.66 per cent rearers was suggested to increase grazing area and reserve the land as a grazing land. These findings are similar with the Pawar (2013).

SUMMARY AND CONCLUSIONS

Chapter-VI

SUMMARY AND CONCLUSIONS

Buffalo rearing is a subsidiary occupation in India. A large section of rural population engaged in buffalo rearing, belongs to poor section of rural community i.e., small, marginal and farmers. The buffalo population of India is 108.702 million; it is about 1/2 per cent of the world's buffalo population. Though our buffalo population is higher than other countries, milk production is very low as compared to other countries. That's why the study of utility perception of buffalo management practices and constraints faced by them was under taken which entitled as "Utility perception of Marathwadi buffalo by the rearers". The specific objectives were,

6.1 Profile of Marathwadi buffalo rearers.

6.2 Utility perception of Marathwadi buffalo by the rearers.

6.3 Relationship between profile with utility perception of Marathwadi buffalo rearers.

6.4 Constraints faced by the Marathwadi buffalo rearers and obtain their suggestions.

In view with above objectives, 12 villages from Latur district were selected. Four villages from each tahsil Udgir, Nilanga and Ausa were purposively selected and Ten respondents (Marathwadi bufflo rearers) were also selected randomly from each village. Thus the total 120 respondents from 12villages constituted the sample for study. The respondents were personally interviewed and the data collected were processed and statistically analyzed by using statistical techniques like frequency, percentage, mean and correlation coefficient.

6.1 Summary

6.1.1 Profile of the Marathwadi buffalo rearers

It was revealed that majority (70.83 %) per cent of buffalo rearers were from medium experience category. It was clear that 31.67 per cent of the respondants had primary education. It was clearly pointed out that to half of (55.00 %) buffalo rearers belonged to medium family size category. The

information indicated that 22.50 per cent of the respondents were engaged in buffalo rearing + farming category, It was also seen that larger proportion (61.67 %) of the buffalo rearers had medium heard size of buffalos. It was observed that most (68.34 %) of the buffalo rearers had medium level of annual income and 59.17 per cent of the buffalo rearers had medium land holding. It was observed that more than half (61.67%) of the buffalo rearers had high social participation and 55.00 per cent of respondents had medium economic motivation. It was revealed that larger proportion (73.33%) of the respondents had medium use of sources of information about buffalo rearing practices.

6.1.2 Utility perception of Marathwadi buffalo by the rearers.

It was observed that majority (74.17%) of the buffalo rearers was observed to be in medium level of utility perception category folloedw by low and high level of level of utility perception categories.

6.1.3 Relationship between personal characteristics with their utility perception of Marathwadi buffalo rearing practices.

It is observed from table that farmimg experience, family size, occupation, Annual income, Social participation and Economic motivation found to be positively significant relation with utility perception about buffalo rearing practices at 0.05 per cent probability However, Variable education, herd size, land holding and Use of Sources of information found to be positively significant relation with utility perception about buffalo rearing practices at 0.01 per cent probability.

6.1.4 Constraints faced by the Marathwadi buffalo rearers

It was indicated that all (100.00 %) of the marathwadi buffalo rearers reported the constraints in shortage of grazing land and shortage of fodder due to less rainfall since last three years. The second most major constraints (99.16 %) was regarding in getting needed veterinarian services. 97.50 per cent of the respondents had the constraints in getting scientific advice as per need. Constraints in getting sufficient and timely availability of loan and good price of buffalo in market were expressed by 98.33 per cent of the respondants. The

other constraints like transportation (88.33 %), non-availability of market near the villages (87.50%), high cost of requirement for veterinary aids (80.83 %) were expressed by marathwadi buffalo rearers.

6.1.4 Suggestion obtained by marathwadi buffalo rearers

It was clear that majority (95.83 %) of the respondents was suggested to reduce the prices of Kadabi. Followed by 90.16 per cent respondents was suggest prices of succulent fodder should be reduced. Need of proper marketing while selling of cattles to get suitable price suggested by 87.50 per cent respondants. 83.33 per cent respondents suggested to fodder should be provided by Government through Chara chavni. About 80.83 per cent respondents suggested that to provide free medicine by the government. Medical facility should be provided in every village was suggested by 72.50 per cent respondents. Among all respondents 66.66 per cent suggested that loan should be provided on time by Government. 64.16 per cent respondents was suggested to reduce cost of kadabi.50 per cent respondents suggested that to provide riad and transport facility to every village. 41.66 per cent rearers was suggested to increase grazing area and reserve the land as a grazing land.

6.2 Conclusions

6.2. 1 Profile of Marathwadi buffalo rearers.

Mejority of the buffalo rearers under study were from medium level of farm experiance. Most of them were educated in primary, having medium size of family, buffalo rearing+ farming occupation, having medium herd size, medium annual income, having medium land holding , medium social participation, medium economic motivation and medium use of source of information.

6.2.2 Utility perception of Marathwadi buffalo by the rearers

It was observed that majority of the marathwadi buffalo rearers were observed to be in medium level of utility perception.

6.2.3 Relationship between personal characteristics with their utility perception of Marathwadi buffalo rearing practices

It is concluded that the increased level of education, family size, annual income, occupation, social participation, sources of information, extension contact, herd size, knowledge their level of utility perception also increased. With increase in farm experience, there was a increase in cattle rearer's level of utility perception and land holding having statistically significant relationship with utility perception of cattle rearing practices.

6.2.4 Constraints faced by the Marathwadi buffalo rearers.

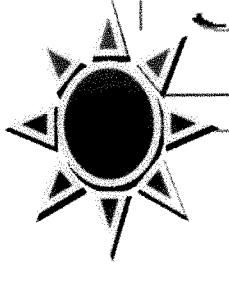
The important constraints reported by buffalo rearer is constraint of availability of fodder throughout the year and also in the rainy season, shortage of grazing land, constraints about getting loan in time and in sufficient amount, constraints in getting veterinary services, constraints in getting price to cattle at selling due to the butchers and middleman which creates the chain, Near about one fourth of the cattle rearers having the constraint of transportation of cattle's to sell the cattle's in the market in big cities.

As regards cost of veterinary aids and concentrates constraints reported by rearers about high cost requirement of veterinary aids and concentrates.

6.2.5 Suggestions obtained from Marathwadi buffalo rearers

Majority of the respondents was suggested to reduce the prices of Kadabi and also suggested to prices of succulent fodder should be reduced. Need of proper marketing while selling of cattles to get suitable price suggested most of respondants. Larger proportion of respondents suggested to fodder should be provided by Government through Chara chavni. Some of them also suggested that to provide free medicine by the government and Medical facility should be provided in every village. Among all respondents majority of the respondants suggested that loan should be provided on time by Government. Some were them was suggested to reduce cost of kadabi. Some of them also suggested that to provide road and transport facility to every village and few were suggested to increase grazing area and reserve the land as a grazing land.

IMPLICATIONS



Chapter VII

IMPLICATIONS

Findings of one study are not adequate for generalization but may serve as a guideline for policy makers, executors and the extension agents associated with the livestock development for promoting future activities and bringing out desirable changes in the Marathwadi buffalo rearers development and different planning programmes. The researcher hopes that this research study would be helpful for the understanding of profile of Marathwadi buffalo rearers, their knowledge level of buffalo rearing practices and constraints faced by them in buffalo rearing. The findings of the study leads to the following implications.

Action implication

India is a predominant agricultural country and nearly 60 per cent of its population directly and indirectly are the source of their live hood. The dark side of Indian agriculture is that it is gamble of monsoon and dominant of small, marginal and landless labours, even though Indian economy sustain during the world economic crises of 2008 because of hard work and policy of government towards agriculture. Based on findings of the study following major conclusions can be drawn.

1) Buffalo rearing can be adopted as main subsidiary occupation by marginal and small farmers.

2) Special shell in the bank should be open for distribution of required amount of loan in time to the needy beneficiaries.

3) To improve the production and productivity of buffalo various breeding aspects need to be considered and encouraged.

4) Strength, weakness, opportunity and threat (SWOT) analysis of profile of buffalo rearers need to be thoroughly examine and based on them better policy should be formulated for the benefits of buffalo rearers.

5) To tackle the constraints like storage of fodder throughout the year, vaccination, avoid of middle man, access to the market, officer need to be appointed to look in to buffalo rearers constraints and generalized it properly.

This study pointed out that buffalo rearers were facing the constraints in marketing of buffalo such as low price for buffalo at the time of selling, non availability of veterinary facilities which results in lowering the production of the buffalo and low profit. It implies establishing, strengthening the co-operative marketing mechanism so that they may lead in their buffalory business for more facilities and more profit.

Buffalo rearing now a day's requires additional capital investment due to unavailability of grazing land, high prices of concentrates and veterinary services. Arrangement of timely credit supply with easy terms and lower interest for longer duration of loan repayment and subsidies production and maintenance inputs are needed to meet the buffalo rearers need through credit supplier institutes and banks so that the interested buffalo rearers can establish big buffalo farms with improved technology to earn more profit.

The departments and agencies related to the development of cutlery have to make conscious efforts for rapid diffusion of innovation of buffalo husbandry management for buffalo rearers. This can be done by arranging study programmes, exhibitions, demonstrations and visits to progressive buffalo rearers.

Research implications

The present study being of exploratory type, the finding will have to be tested to a greater depth in other parts of states to judge its validity on large scale. The characteristics included in the study are not sufficient for generalization or to come at any recommendation about buffalo rearing so other characters should have to be studied. Therefore the study should be conducted at greater depth. However this will be useful as 'bench mark' to investigate deeply the studies of similar type in future.

LITERATURE CITED

LITERATURE CITED

Ainalawar, G.R., 2012. Utility perception about Red kandhari cattle by the rearers, M.Sc (Agri.) Thesis,V.N.M.K.V.,Parbhani.

Bhosale, R.B., 2000. A study of knowledge and adoption of goat rearing farmers about goat management practices and constraints faced by them From Man tahsil of satara district. M.Sc. (Agri) Thesis, M.P.K.V. Rahuri, (M.S.). (non published).

Chavan, B.J., 2007. Utility perception of farmer about attributes of B.t cotton M.Sc. (Agri.) thesis Dr. P.D.K.V. Akola.

Chuadari Rathna Ranuji., 2006. Study on Entrepreneurial behaviour of dairy farmers. Ph.D thesis University of agricultural science, Dharwad.

Chuadari Rathna Ranuji. 2006. study on Entrepreneurial behaviour of dairy farmers. Ph.D thesis University of agricultural science, Dharwad.

Chauhan, D.S., Thombre, B.M., Mitkari, K.R., Rotte, S.G.,2008 A text book of livestock management, Jagrani pub. Bhokar. pp 47-49.

Dar, M.A.(1995).A study of impact of shivamrut milk producers coperative associa tion, Akluj on member farmers of village dairy co-operative societies in Malshiras Tahsil of Solapur M.sc.(Agri.) Thesis, M.P.K.V.,Rahuri (M.S.).

Gujar, B.V., 2003. Adhoc project on characterization and evalution of marathwadi buffalo on field scale in their breeding tract, M. Sc. (Agri) Thesis M.A.U. Parbhani

Hajare Sonali Abasaheb, 2010. Training needs of SHG members about dairy enterprise in Latur district, M.Sc. (Agri) Thesis,V.N.M.K.V., Parbhani.

Jadhav B.D., 2003. A study of entrepreneurial behavior of watermelon growers in Raigad district M.Sc.(Agri.)thesis B.S.K. K.V, Dapoli, Dist. Ratnagiri (MS).

Kaidan, K.S. and Ramkumar , (1999). Factore associated with knowledge level of dairy farmers. Mah. J. Extn. Edu. Edn. 18:33-37.

Kamble, A.N. (1995). An impact study of the Rajhans co-operatives poultry society Akluj on member farmers in Malshirs Tahsil of Solapur M.Sc. (Agri.) Thesis, M.P.K.V.,Rahuri (M.S.).(non published)

Mane, T.S. 2001 A study of the benificiaries of integrated rural development Programme in Ratnagiri district. M.Sc. (Agri) Thesis,K.K.V. Dapoli (M.S.).

Marathe K.G. 2004 farmers perception about use of biofertilizers. M.Sc. (Agri.) Thesis Dr P.D.K.V. Akola.

Marwale, P.V., Dikle, R.N. and Bhadarge, H.H. (1995). Relationship between socio economic and psychological characteristics and adoption of feeding practices. Mah.J.Extn.Edn.14: 243-245.

Narwal, R.S., Dixit, V.B. and Dhaiya, S.S. (1991). Correlation of farmers attitude towards buffalo management practices. Ind.J. Extn.Edn. 27(1):97-100.

Nimje, N.R., Choudhari, D.P. and Kulkarni, V.V. (1995). Knowledge and management of poultry entrepreneur. Mah. J. Extn. Edn.,12:209-212.

Natraju, M.S.and Channegowda, M.B. (1987) Socio-economic characteristics of dairyman in relation to their extension participation. India J.Extn.Edn, XXIII: 36-39.

Pawar D. J. 2013. Utility perception about Deoni cattle by the rearers in nanded districts, M.sc. (Agri) Thesis V. N. M. K. V. Parbhani.

Patil, U.N. 2003. A study of knowledge and adoption of goat management Practices by goat keepers in parbhani tahsil, M.Sc. (Agri) Thesis M.A.U. , parbhani.

Pisure B. L. 2012. Entrepreneurel behaviourof dairy farmers, M. Sc (Agri) thesis V.N.M.K.V.Parbhani.

Phadtare, V.R. 1987. A study of Datas community with special reference to the socio economic conditions. (M.Sc.) thesis . M.P.K.V. Rahuri (M.S.).

Rahman Sadat , Buchoo, B.A. and Mattoo, F.A. 1990. Participation of women in agriculture as perceived by their knowledge of scientific poultry husbandry practices. Mah.J.Extn.Edn. 9:307-309.

Rajput, R.D. 2007. Knowledge and adoption of improved cattle rearing practices by the cattle owners, M.sc (Agri) Thesis, M.A.U. Parbhani. (M.S)

Rakshe, D.V. 2002. A study on techonological gap in dairy animal management Practices in parbhani dist. M.Sc. (Agri) Thesis,M.A.U.parbhani (M.S.).

Sable A.N. 2013. Entreprenurial Behaviour of farmers in Marathwada region M.sc. (Agri) Thesis V. N. M. K. V. Parbhani.

Salunke. S.R 2011. Utility perception of goat rearers about Osmanabadi goat in Marathwada region. M.Sc. (Agri) Thesis, VNMKV, Parbhani (MS).

Shingade,M.P. 2001. Impact of Dairy co-operative societies on socio- economic status of members. M.Sc. (Agri) Thesis, M.A.U. Parbhani (M.S.).

Shirolkar, V.G. 1998. A study of training needs of farm women in farming. M.Sc.(Agri) Thesis, M.P.K.V. Rahuri, (M.S.).

Suresh, S.V. Jayaramaigh, K.M. and Shivalingaiah, Y.N. 1987. Contraints of tribal farmers in agriculture sheep and goat enterprise. Rural India. 55-56 (1-12): 190-193.

Thombre, B.M., Mande, J.V. and Kolgane, B.T. 2010, Farmers' opinion about rearing of Deoni cattle. *Indian J. of animal research* 44 (4): 289-292.

Wadkar J.R.2007. knowledge and adoption of improved goat rearing practices by the Goat rearers in Osmanabad district. M.Sc. (Agri) Thesis, M.K.V. Parbhani.

Waghmare, K.W., N.P Dupte and Shinde, P.V.,1998 Information source credibility among small farmers. Mah. J.of Extn.Edn.Vol.XVII,PP:52-54.

Internet for 19th livestock census Gov. of Maharashtra and Gov. of India for reviews.

ABSTRACT

Department of Extension Education
College of Agriculture, Latur
Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

THESIS ABSTRACT

Thesis Title

"Utility perception of Marathwadi buffalo by the rearers "

Name of the student : Mr. Bande K. D. **Research Guide:** Dr. J. M. Deshmukah
Reg. No. : 2014A/72ML Assistant Professor
Degree : M.Sc. (Agri.) **Major subject** : Extension Education

The present study was conducted in Latur district, in Marathwada region , of Maharashtra State in the year of 2015-16 with specific objective to study the utility perception of Marathwadi buffalo by the rearers. From Latur district Ausa nilanga and udgir talukas were selected for study. From each taluka Four villages were selected which are having the considerable population of Marathwadi buffalo, from each village ten respondents were selected. Mean, Percentage, standard deviation, correlation coefficient were used for the research study.

It was revealed that majority (70.83 %) per cent of buffalo rearers were from medium experience category. It was clear that 31.67 per cent of the respondants had primary education. It was clearly pointed out that to half of (55.00 %) buffalo rearers belonged to medium family size category. The information indicated that 22.50 per cent of the respondents were engaged in buffalo rearing + farming category, It was also seen that larger proportion (61.67 %) of the buffalo rearers had medium heard size of buffalos. It was observed that most (68.34 %) of the buffalo rearers had medium level of annual income and 59.17 per cent of the buffalo rearers had medium land holding. It was observed that more than half (61.67%) of the buffalo rearers had high social participation and 55.00 per cent of respondents had medium economic motivation. It was revealed that larger proportion (73.33%) of the respondents had medium use of sources of information about buffalo rearing practices.

It was indicated that all (100.00 %) of the marathwadi buffalo rearers reported the constraints in shortage of grazing land and shortage of fodder due to less rainfall since last three years. The second most major constraints (99.16 %) was regarding in

getting needed veterinarian services. 97.50 per cent of the respondents had the constraints in getting scientific advice as per need. Constraints in getting sufficient and timely availability of loan and good price of buffalo in market were expressed by 98.33 per cent of the respondants. The other constraints like transportation (88.33 %), non-availability of market near the villages (87.50%), high cost of requirement for veterinary aids (80.83 %) were expressed by marathwadi buffalo rearers.

It was clear that majority (95.83 %) of the respondents was suggested to reduce the prices of Kadabi. Followed by 90.16 per cent respondents was suggest prices of succulent fodder should be reduced. Need of proper marketing while selling of cattles to get suitable price suggested by 87.50 per cent respondants. 83.33 per cent respondents suggested to fodder should be provided by Government through Chara chavni. About 80.83 per cent respondents suggested that to provide free medicine by the government. Medical facility should be provided in every village was suggested by 72.50 per cent respondents. Among all respondents 66.66 per cent suggested that loan should be provided on time by Government. 64.16 per cent respondents was suggested to reduce cost of kadabi.50 per cent respondents suggested that to provide riad and transport facility to every village. 41.66 per cent rearers was suggested to increase grazing area and reserve the land as a grazing land.

APPENDIX

विस्तार शिक्षण विभाग

कृषि महाविद्यालय, लातूर

वसंतराव नाईक मराठवाडा कृषि विद्यापीठ, परभणी

प्रश्नावली

संशोधनाचा विषय :- मराठवाडी म्हैस पालकांना ज्ञात असलेली उपयोगिता

प्रबंधकाचे नाव :- बंडे कालिदास दगडू

मार्गदर्शकाचे नाव :- डॉ. ज्योती म. देशमुख (विस्तार शिक्षण)

मराठवाडी म्हैस पालकाची वैयक्तिक माहिती :-

नांव :- ——————————————————

अ. गाव : ———— ब. तालुका ———— क. जिल्हा ————

भाग पहिला

1. शेती विषयी अनुभव :- ..... वर्षे

2. शिक्षण :

अ.क्र.	शिक्षण पातळी	होय	नाही
01.	अशिक्षीत		
02.	प्राथमिक		
03.	माध्यमिक		
04.	उच्च माध्यमिक		
05.	महाविद्यालयीन		

3. कुटुंबातील व्यक्तींची एकूण संख्या .....

अ. पुरूष ..... ब. स्त्रिया ..... क. मुले .....

4. व्यवसाय

अ. शेती ☐ ब. म्हैस पालन ☐ क. मजुरी ☐

ड. जातीय व्यवसाय ☐ इ. व्यापार ☐ ई. नौकरी ☐

5. पाळलेल्या म्हशींची संख्या

अ.क्र.	प्रकार	संख्या
अ.	म्हैस	
ब.	रेडा	
क.	वागार	
ड.	रेडकू	
	एकूण	

6. कुटुंबाचे एकूण वार्षिक उत्पन्न.

अ.क्र.	व्यवसाय	वार्षिक उत्पन्न
अ.	मुख्य व्यवसाय	
ब.	दुय्यम व्यवसाय	
	एकूण वार्षिक उत्पन्न (अ अ ब)	

7. जमीनधारणा

अ. बागायती क्षेत्र ..... हे ..... आर

ब. कोरडवाहू ..... हे ..... आर

क. जनावरांसाठी ..... हे ..... आर

ड. एकूण ..... हे ..... आर

8. सामाजिक सहभाग

अ.क्र.	प्रवर्ग	होय / नाही
01	एका संस्थेचा सदस्य	
02	एका पेक्षा जास्त संस्थांचा सदस्य	
03	पदाधिकारी	
04	विभिन्नत्व दर्शक वैशिष्ट्य	

9. आर्थिक प्रेरणा

अ.क्र.	वाक्य	पुर्णपणे सहमत (5)	सहमत (4)	सांगता येत नाही (3)	असहमत (2)	पूर्णपणे असहमत (1)
01.	म्हैस पालकाने जास्तीत जास्त उत्पादन व नफा मिळविण्याच्य दृष्टिने काम केले पाहिजे.					
02.	जो म्हैस पालक जास्तीत जास्त फायदा मिळवतो तोच खरा दुग्ध व्यवसाय करणारा शेतकरी असतो.					
03.	म्हैस पालकाने अशा काही नवनवीन गोष्टींचा अवलंब केला पाहिजे ज्यामुळे त्यांना अधिक पैसा मिळेल.					
04.	म्हैस पालकाने जास्तीत जास्त नफा मिळवण्यासाठी संकरीत म्हशी / गाई यांचा वापर केला पाहिजे.					
05.	म्हैस पालकाच्या मुलांना आर्थिक सहयोगाशिवाय जिवनात सुरवात करणे कठीण जाते.					
06.	म्हैस पालकाने नफा मिळविण्याबरोबर समाजामध्ये चांगली प्रतिष्ठा जपली पाहिजे.					

10. माहितीसाठी साधनांचा वापर

अ.क्र.	माहिती साधने	नेहमी	कधीतरी	कधीच नाही
अ.	**वैयक्तिक माहिती साधने**			
01	स्थानिक नेते			
02	प्रगतीशील शेतकरी			
03	शेजारी			
04	नातेवाईक			
05	कुटुंबातील सदस्य			
06	इतर (नमुद करा)			
ब	**वैयक्तिक बहिस्त माहिती**			
01.	ग्रामसेवक			
02.	विस्तार अधिकारी			
03.	गट विकास अधिकारी			
04.	जिल्हा पशु अधिकारी			
05.	पशु पर्यवेक्षक			
06.	पशु सहाय्यक			
07.	पशु विकास अधिकारी			
08.	कृषि सहाय्यक			
09.	प्रत्यक्ष प्रात्यक्षिकीकरण			
10.	बैठक			
11.	समुह चर्चा			
12.	सहली			
13	मेळावे			
क	**समुह माहिती साधने**			
	अ. मुद्रीत साहित्य			
01.	कृषि प्रकाशन (मासिक)			
02.	पुस्तके			
03.	कृषि दर्शनी			
	ब. इलेक्ट्रॉनिक मा. साधने			
01.	रेडिओ			
02.	टी.व्ही.			
03.	चित्रपटे			
04	इतर (नमूद करा)			

भाग दुसरा

अ. मराठवाडी म्हैस पालकांची ज्ञात उपयोगिता.

अ.क्र.	विवरण	मान्य	अशंतः मान्य	अमान्य
01.	मराठवाडी म्हैस पालनासाठी खर्च कमी येतो			
02.	मराठवाडी म्हशी दुध उत्पादनात अधिक उपयुक्त आहेत			
03.	या म्हशी कुठल्याही थंड / उष्ण हवामानात तग धरू शकतात			
04.	मराठवाडी म्हशींना पुरक खाद्याची गरज असते			
05.	या म्हशींमध्ये रोगप्रतिकारक क्षमता अधिक असल्यामूळे त्या रोगास कमी बळी पडतात			
06.	या म्हशी इतर म्हशीच्या तुलनेत लवकर वयात येतात			
07.	मराठवाडी म्हशीची भाकड अवस्था इतर म्हशीच्या तुलनेत कमी असते			
08.	या म्हशींचे दुधाचे उत्पन्न इतर म्हशींच्या दुधाच्या तुलनेत जास्त असते.			
09.	मराठवाडी म्हशीच्या दुधातील स्निग्धांश मराठवाड्यातील इतर जातीपेक्षा जास्त असते			
10	मराठवाडी म्हशीच्या दुधाला बाजारात अधिक भाव मिळतो.			
11.	मराठवाडी म्हैस दुष्काळप्रवण क्षेत्रात पाळण्यास योग्य			
12.	मराठवाडी म्हशीपासून दररोज सहा ते आठ किलो शेन मिळते.			
13.	महाराष्ट्रातील इतर जातींच्या म्हशींपेक्षा जास्त मागणी असते.			
14.	मराठवाडी म्हशींचा दुध देण्याचा कालावधी सरासरी 300 दिवस असतो.			
15.	मराठवाडी म्हैस पालनात कमी खर्चात जास्त नफा मिळतो.			

भाग तिसरा

अ. मराठवाडी म्हैस संगोपनासाठी कांही अडचणी येतात का? होय किंवा नाही.

होय असल्यास कोणत्या?

अ.क्र.	विवरण	होय / नाही
01.	म्हैस चारण्यास जमीनीची कमतरता भासते	
02.	म्हैस संगोपनासाठी चा-याची कमतरता भासते	
03.	स्थानिक पातळीवर वेळेवर गरजेनुसार वैज्ञानिक सेवा उपलब्ध होत नाहीत.	
04.	स्थानिक पातळीवर वेळेवर आरोग्य सेवा उपलब्ध होत नाहीत.	
05.	म्हैस संगोपनासाठी वेळेवर पुरेसे कर्ज मिळत नाही	
06.	मराठवाडी म्हैस विक्री करताना योग्य भाव मिळत नाही	
07.	म्हैस विक्री करिता गावापासून जवळ योग्य बाजारपेठ नाही.	
08.	म्हशींची वाहतुक करण्यासाठी सोय नाही	
09.	औषधोपचार खर्च जास्त येतो.	
10.	मराठवाडी म्हशीच्या खुराकाचा खर्च जास्त येतो	

VITAE

Bande Kalidas
A candidate of the degree of
MASTER OF SCIENCE (AGRICULTURE)
In
Extension Education
2016

Title of Thesis : Utility perception of Marathwadi Buffalo By The rearers.

Major Field :Extension Education

Personal data :Born at Mahadewvadi Tq Ausa dist Latur On 06, July 1991. Son of Dagdu Bande and Shrimati Zumbarbai Bande.

Present Address: At. Post Mahadewvadi Tq. Ausa Dist. Latur pin 413516
Contact no. 9689808759
E-mail- kalidasash@gmail.com

Educational Qualification

1. Passed S.S.C. (X^{th}) from Mukteshwar high school Ausa in 2007.
2. Passed H.S.C. (XII^{th}) from S. K. S. College in 2009.
3. Received the degree of Bachelor of Science (Agriculture) Honors at College of Agriculture, Latur in 2014.
4. Secured P.G. seat at College of Agriculture, Latur, V.N.M.K.V., Parbhani (M.S.) through MCEAR entrance exam.

Place – Latur **Signature of Student**

Date - 3/8/2016