



**MAFSU,  
Template – College Website(s)**

**Research:**

**1. Collaboration as Co-PI in Other Department Sanctioned Research Projects**

- **Sustainable Tribal Livelihood through Scientific Backyard Poultry Rearing in Gadchiroli District of Maharashtra funded by ICAR, New Delhi under Tribal Sub-Plan**  
**PI:** Dr. M. M. Kadam, Assistant Professor, Dept. of Poultry Science.  
**Co-PI:** Dr. M.A. Gole, Dr. A.R. Patil, **Dr. Sariput P. Landge** and **Dr. V.K. Basunathe**
  
- **Raising of Tribal Livelihood: Quality Milk Production through Udder Health Management Practices funded by ICAR, New Delhi under Tribal Sub-Plan**  
**PI:** Dr. S. P. Chaudhari, Associate Professor, Dept. of Veterinary Public Health.  
**Co-PI:** Dr. W. A. Khan, Dr. S. V. Shinde, Dr. A. R. Patil, **Dr. Vaishali V. Banthiya** and **Dr. Sariput P. Landge**
  
- **Dairy Development through Implementation of Heat Synchronization Demonstrations in Cattle and Buffaloes in Nagpur District ATMA, Nagpur**  
**PI:** **Dr. Sariput P. Landge**, Assistant Professor, Dept. of Vet. & A.H. Extension  
**Co-PI:** Dr. S. K. Sahatpure, Dr. A. D. Patil, Dr. M. S. Patil and **Dr. Vaishali V. Banthiya**
  
- **Development of Sustainable Animal Husbandry Practices in the Tribal Villages of Gadchiroli District of Maharashtra State under**  
**PI:** Dr. M. S. Patil, Assistant Professor, Dr. S. K. Sahatpure, Dept. of ARGO  
**Co-PI:** **Sariput P. Landge**, Assistant Professor, Dept. of Vet. & A.H. Extension

**2. Thesis:**

**Masters: M.V.Sc.**

Name of Department: <b>VETERINARY AND ANIMAL HUSBANDRY EXTENSION</b>				
Sr. No.	Name of the Student	Title of Thesis	Year of Completion	Name of the Advisor
1.	Miss. Smita Harishchandra Surkar (V/02/96)	Adoption of Preventive Measures for Quality Milk Production by Farmers	2004	Dr. S.W. Sawarkar
2.	Mr. Vijay Kisanrao Basunathe (V/02/87)	Technology Adoption Behaviour of Dairy Farmers in Less Milk Producing Areas	2004	Dr. S.W. Sawarkar
3.	Miss. Banthiya Vaishali Virendra (V/02/423)	Effect of Demonstration on the Adoption of Under Health Management Practices by Dairy Women	2005	Dr. S.W. Sawarkar
4.	Mr. Khode Narendra	Extent of Adoption of Improved Dairy Cattle Management Practices by	2005	Dr. S.W. Sawarkar



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	Vishwanath (V/02/368)	Beneficiaries Under Vidarbha Development Programme Package		
5.	Mr. More Dattatray Shankar (V/02/355)	Adoption of Improved Buffalo Management Practices by Rural Below Poverty Line Farmers of Nagpur District	2006	Dr. S.W. Sawarkar
6.	Mr. Nande Milind Pundalik (V/02/442)	Information Seeking Behaviour of Dairy Farmers of Nagpur District	2007	Dr. S. H. Gawande
7.	Mr. Patil Amol Pramod (V/02/505)	Training Needs of Dairy Farmers in Nagpur District	2007	Dr. S. H. Gawande
8.	Miss. Tiple Ashwini Vijaykumar (V/02/575)	Adoption of Improved Dairy Production Innovations by Members and Non-Members of Dairy Co-operative Societies in Nagpur District	2008	Dr. S. H. Gawande
9.	Mr. Khandait Vivek Natthuji (V/02/605)	Adoption of Backyard Poultry Practices in Bhandara District of Maharashtra	2008	Dr. S. H. Gawande
10.	Mr. Lohakare Amit Chandrabhan (V/02/1813)	Adoption of Animal Husbandry Practices by the Cattle Owners in Different Farming System in Nagpur District	2009	Dr. S. H. Gawande
11.	Miss. Khose Kavita Ashok (V/03/0086)	Adoption of Reproductive Health Management Practices by Cattle Owners in Nagpur District of Maharashtra	2010	Dr. S. H. Gawande
12.	Miss. Chaudhari Sanjivani Bhimrao (V/02/498)	Job Satisfaction of Livestock Development Officers in Vidarbha Region of Maharashtra	2010	Dr. S. H. Gawande
13.	Mr. Raje Aviraj Dinkar (V/03/0088)	Adoption of Improved Dairy Management Practices by Cattle Owners in Different Farming System in Nagpur District	2011	Dr. S. H. Gawande
14.	Mr. Hagone Vaibhav Dhanraj (V/05/0123)	Decision Making Towards Improved Dairy Management Practices by The Tribal Women of Amaravati District	2012	Dr. V. K. Basunathe
15.	Mr. Kalpande Nitin Bhikaram (V/05/0127)	Comparative Study of Contract and Non-Contract Broiler Poultry Farming in Nagpur District of Vidarbha Region in Maharashtra State	2013	Dr. V. K. Basunathe
16.	Mr. Madane Naveenkumar Mohan (V/07/011)	Adoption of Dairy Husbandry Practices (DHPs) by Tribal Dairy Farmers in Gadchiroli District of Maharashtra	2014	Dr. Vaishali V. Banthiya
17.	Mr. Pawade Pawan Arvind (V/09/043)	A Comparative Study of Adoption of Dairy Husbandry Practices (DHPs) in Conventional and Loose Housing System (LHS) by Dairy Farmers in Western Maharashtra	2016	Dr. Sariput P. Landge



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18.	Mr. Koma Sarveshwar Sakharam (V/09/053)	A Descriptive Analysis of Tribal Goat Farming System in Gadchiroli District of Maharashtra	2017	Dr. Sariput P. Landge
19.	Mr. Nandeshwar Jishant Dalitkumar (V/11/120)	Development of Android Based Mobile Application for Goat Management Practices and its Effectiveness for Goat Farmers	2018	Dr. Sariput P. Landge
20.	Miss. Khobragade Jotshana Ashok (V/11/251)	Development of Android Based Mobile Application on Desi Chicken Management Practices and its Effectiveness for Poultry Farmers	2018	Dr. Vaishali V. Banthiya
21.	Mr. Nitin Kumar Mishra (V/17/378)	Development of Android Based Mobile Application on Dairy Management Practices and its Effectiveness for Dairy Farmers	2019	Dr. Sariput P. Landge
22.	Mr. Gharde Prashant Dilip (V/13/017)	Appraisal of Pig Farming Practices in Vidarbha Region of Maharashtra	2021	Dr. Vaishali V. Banthiya
23.	Mr. Meshram Sujit Haridas (V/14/156)	Study of Livestock Marketing in Eastern Vidarbha Region of Maharashtra	2022	Dr. Sariput P. Landge

**3. Research Recommendations: Dept. of Vet. & A.H. Extension Education, NVC, Nagpur**

<b>Sr. No.</b>	<b>01</b>
<b>Year</b>	<b>2016-17: XV Joint Animal Science Research Council Meet</b> (Project Title No. 13/2016-17, Page No. – 04)
<b>Project Title</b>	<b>A Comparative Study of Adoption of Dairy Husbandry Practices (DHPs) in Conventional and Loose Housing System (LHS) by Dairy Farmers in Western Maharashtra</b>
<b>Investigators</b>	Dr. Pawan A. Pawade, Dr. Sariput P. Landge, Dr. Vaishali V. Banthiya, Dr. M. S. Patil, Dr. G. P. Shende and Shri. D. V. Patil
<b>Recommendations</b>	The loose housing system is recommended for rearing of dairy cattle considering the advantages such as low capital requirement for building the shed, efficient utilization of feed and water, lower requirement of labour, lower incidence of mastitis, other illnesses, lameness and infertility and ease in heat detection.
<b>Sr. No.</b>	<b>02</b>
<b>Year</b>	<b>2018-19: XVII Joint Animal Science Research Council Meet</b> (Project Title No. 17/2018-19, Page No. – 06)
<b>Project Title</b>	<b>Development of Android Based Mobile Application on Goat Management Practices and its Effectiveness for Goat Farmers</b>
<b>Investigators</b>	Dr. Jishant D. Nandeshwar, Dr. Sariput P. Landge, Dr. Vaishali V. Banthiya, Dr. S. S. Chopde, Dr. A. P. Dhok and Shri. D. V. Patil
<b>Recommendations</b>	The Android based Mobile Application developed by Department of



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	Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Goat Management Practices - “Goat Farming” (Sheli Palan) as ICT tools for the effective dissemination of information among the goat farmers is recommended for use by the goat farmers.
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<b>Sr. No.</b>	<b>03</b>
<b>Year</b>	<b>2018-19: XVII Joint Animal Science Research Council Meet</b> (Project Title No. 18/2018-19, Page No. – 06)
<b>Project Title</b>	<b>Development of Android Based Mobile Application on Desi Chicken Management Practices and its Effectiveness for Poultry Farmers</b>
<b>Investigators</b>	Dr. Jotshana A. Khobragade, Dr. Vaishali V. Banthiya, Dr. Sariput P. Landge, Dr. A. P. Dhok, Dr. M. M. Kadam and Shri. D. V. Patil
<b>Recommendations</b>	Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Desi Chicken Management Practices - “Poultry Farming” (Kukkut Palan) as ICT tools for the effective dissemination of information among the poultry farmers is recommended for use by the Poultry Farmers.

<b>Sr. No.</b>	<b>04</b>
<b>Year</b>	<b>2019-20: 18<sup>th</sup> Joint Animal Science Research Council Meet</b> (Project Title No. 11/2019-20, Page No. – 04)
<b>Project Title</b>	<b>Development of Android Based Mobile Application on Dairy Management Practices and its Effectiveness for Dairy Farmers.</b>
<b>Investigators</b>	Dr. Nitin Kumar Mishra, Dr. Sariput P. Landge, Dr. Vaishali V. Banthiya, Dr. S. S. Chopde, Dr. A. P. Dhok, and Shri. D. V. Patil
<b>Recommendations</b>	The Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Dairy Management Practices - “Dairy Farming” (Dugdha Vyavasaya) is recommended as an ICT tool for the effective dissemination of information among the dairy farmers.




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### RESEARCH RECOMMENDATIONS in JOINT ASRC




**MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR**



## RECOMMENDATIONS

**XV JOINT ANIMAL SCIENCE RESEARCH COUNCIL MEET  
2016-17**



**MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR**

**RECOMMENDATIONS**  
XV JOINT ANIMAL SCIENCE RESEARCH COUNCIL MEET  
2016-17

**12** **Project Title** : Assessment of quality of chicken nuggets treated with garlic extract at refrigerated storage.

**Investigators** : Satish Yadav & Dr. S. R. Badhe

**Name of the college** : BVC, Mumbai.

**Recommendation** : Water used in emulsion preparation can be replaced with 50% garlic extract (50 ml garlic extract + 50 ml of water) to extend the shelf life of chicken nuggets upto 14 days under refrigeration condition (4±1) without any adverse effects on sensory qualities.

**शुद्धांतर** : चिकन नोड्यूल तयार करण्यासाठी इमल्शन तयार करताना पाण्याऐवजी ५० टक्के अलसाला अर्क वापरले (५० मि एल अलसाला अर्क + ५० मि एल पाणी) वापरले तर नोड्यूलची कित लायव्हायला (४±१) चिकन नोड्यूलची क्वालिटी १४ दिवसांपर्यंत वाढू शकते.

**13** **Project Title** : A Comparative Study of Adoption of Dairy Husbandry Practices (DHPs) in Conventional and Loose Housing System (LHS) by Dairy Farmers in Western Maharashtra.

**Investigators** : Pawade Pawan Arvindrao and Dr. Sariput P. Landge

**Name of the college** : NVC, Nagpur.

**Recommendation** : The loose housing system is recommended for rearing of dairy cattle considering the advantages such as low capital requirement for building the shed, efficient utilization of feed and water, lower requirement of labour, lower incidence of mastitis, other illnesses, lameness and infertility and ease in heat detection.

**शुद्धांतर** : गोठा सोपीसमदी जनावरात कमी खर्च, वाढ आणि पाणी पांखा पुणेपुन वापरात, भवूपात लागत कमी खर्च, संकलनात कमी प्रमाण असेल शेतकरी व इतर आजारात कमी प्रमाण, संकलनात कमी प्रमाण, आणि पाज ओळखण्यातील सुलभता हे फायद्यामुळे दुधात जनावरांच्या सोपीसममदी मुक्त संसार गोठा पाडदीही शिफारस करण्यात देते.

**14** **Project Title** : Association of sperm mitochondrial functional markers with semen quality traits in Murrah Buffalo.

**Investigators** : Dr. S. N. Jadhav, Dr. A. K. Barate, Dr. V. R. Patodkar

**Name of the college** : KNP College of Veterinary and Animal Science, Shirval, Satara.

**Recommendation** : Phenotypic quality of fresh & cryopreserved semen of Murrah buffalo is affected by alteration in mitochondrial functional markers including increased production of reactive oxygen species by sperm mitochondria, increased lipid peroxidation of sperm membrane, poor antioxidant defence mechanism in spermatozoa and alteration in gene expression in mitochondrial respiratory genes controlling mitochondrial activity in buffalo spermatozoa.

**शुद्धांतर** : मुद्दा जातीच्या रोड्युममदील ताजा आणि अतिशय गोडीत पिण्याची सुलभता ही सुलभताकांच्या (Mitochondria) कार्यक्षमतेतील पुढील बदलांमुळे प्रभावित होत. सुलभ, सुलभताकांच्या रिजिस्टीव्ह ऑक्सीजनची पाडीत निर्मिती, सुलभताकांच्या कपाचा पाडीत लिपिड परऑक्सीडेशन, सुलभताकांच्या कालवलेली ऑक्सीडोपेन्ड प्रक्रिया आणि सुलभताकांच्या क्रियाशीलता नियंत्रित करणाऱ्या जनुकांची बदललेली अभिव्यक्ती.

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**MAHARASHTRA ANIMAL  
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UNIVERSITY, NAGPUR**

# RECOMMENDATIONS

## XVII JOINT ANIMAL SCIENCE RESEARCH COUNCIL MEET 2018-19

**MAHARASHTRA ANIMAL  
AND FISHERY SCIENCES  
UNIVERSITY, NAGPUR**

**RECOMMENDATIONS**  
XVII JOINT ANIMAL SCIENCE  
RESEARCH COUNCIL MEET  
2018-2019

माहितीसाठी संघात प्रजनन क्षमतेचा अंदाज लावण्यासाठी रस्त्यालगतहील ऑटी-मुल्यरिचन सोपेरकाया स्वरुपाचे न्युनतम प्रमाण 200 पिक्सेल व. /मी.सी. असावे.

**17 Project Title** : Development of Android Based Mobile Application on Goat Management Practices and its Effectiveness for Goat Farmers.

**Investigators** : Dr. J.D. Nandeshwar, Dr. S. P. Landge, Dr. V. V. Banthiya, Dr. S. S. Choppe, Dr. A. P. Dhok and Shri. D. V. Patil

**Name of the College** : Nagpur Veterinary College, Nagpur.

**Recommendation** : The Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Goat Management Practices - "Goat Farming" (Sheli Palan) as ICT tools for the effective dissemination of information among the goat farmers is recommended for use by the goat farmers.

**शिकारत** : शेळीपालकांमध्ये माहितीचा प्रसार होणेकरिता पशुविज्ञान व पशुसंवर्धन विस्तार शिक्षण विभाग, नागपूर पशुवैद्यक महाविद्यालयाने माहिती तंत्रज्ञानाचा वापर करून विक्रीत केलेले "शेळी पालन" हे ऑनलाईन आधारित मोबाईल एप्लिकेशन ऑप शेळीपालकांनी वापरण्याची शिकारत करण्यात येते.

**18 Project Title** : Development of Android Based Mobile Application on Desi Chicken Management Practices and its Effectiveness for Poultry Farmers.

**Investigators** : Dr. J.A. Khobragade, Dr. V.V. Banthiya, Dr. S.P. Landge, Dr. A.P. Dhok, Dr. M.M. Kadam and Shri. D. V. Patil

**Name of the College** : Nagpur Veterinary College, Nagpur.

**Recommendation** : Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Desi Chicken Management Practices - "Poultry Farming" (Kukkut Palan) as ICT tools for the effective dissemination of information among the poultry farmers is recommended for use by the Poultry Farmers.

**शिकारत** : शेळीपालकांमध्ये माहितीचा प्रसार होणेकरिता पशुविज्ञान व पशुसंवर्धन विस्तार शिक्षण विभाग, नागपूर पशुवैद्यक महाविद्यालयाने माहिती तंत्रज्ञानाचा वापर करून विक्रीत केलेले "शेळी पालन" हे ऑनलाईन आधारित मोबाईल एप्लिकेशन ऑप कुकूटपालकांनी वापरण्याची शिकारत करण्यात येते.

**19 Project Title** : Development of "Goat Vision" - An Android based Mobile Application for goat farmers.

**Investigators** : Dr. V. V. Sulake and Dr. Smita R. Kolhe

**Name of the college** : KNP College of Veterinary Science, Shirwal.

**Recommendation** : Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, KNP CVS, Shirwal on "Goat Vision" as ICT tools for the effective dissemination of information on goat healthcare and nutritional management among the goat farmers is recommended for use by the Goat Farmers.

**शिकारत** : शेळीपालकांमध्ये माहितीचा प्रसार होणेकरिता पशुविज्ञान व पशुसंवर्धन विस्तार शिक्षण विभाग, नागपूर पशुवैद्यक महाविद्यालयाने माहिती तंत्रज्ञानाचा वापर करून विक्रीत केलेले "शेळी पालन" हे ऑनलाईन आधारित मोबाईल एप्लिकेशन ऑप शेळीपालकांनी वापरण्याची शिकारत करण्यात येत आहे.

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**MAHARASHTRA ANIMAL  
AND FISHERY SCIENCES  
UNIVERSITY, NAGPUR**

# RECOMMENDATIONS

## Recommendations of the 18<sup>th</sup> Joint Animal Science Research Council 2019-20

**MAHARASHTRA ANIMAL  
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**Recommendations of the 18<sup>th</sup> Joint Animal  
Science Research Council 2019-20**

**10. Project Title** : Extending the shelf life of paneer coated in edible film treated with essential oils.

**Investigators** : S. Karunamay and S.R. Badhe

**Name of the college** : Mumbai Veterinary College, Mumbai.

**Recommendation** : Carboxy methyl cellulose (CMC) and starch-based film with 0.5% of oregano essential oil is recommended as edible packaging material for paneer to increase the shelf life of paneer by three days at refrigeration temperature (4±1°C).

**शिकारत** : कार्बोक्सी मिथाईल सेल्युलोज आणि 0.5 टक्के ओरिगेनोच्या चामणीत आवरणक तेलचा उपयोग करून स्टार्च-आधारित तयार केलेले खाद्य फिल्मचा फिलम तापमानात (4±1°C) चीनी 3 दिवस अधिक टिकवून देते, म्हणून चीनी साठवण्यासाठी हे वेळन वापरण्याची शिकारत करण्यात येते.

**11- Project Title** : Development of android based mobile application on dairy management practices and its effectiveness for dairy farmers.

**Investigators** : Nitin Kumar Mishra, S.P. Landge, V.V. Banthiya, S.S. Choppe, A.P. Dhok and D.V. Patil

**Name of the college** : Nagpur Veterinary College, Nagpur.

**Recommendation** : The Android based Mobile Application developed by Department of Veterinary and Animal Husbandry Extension Education, Nagpur Veterinary College, Nagpur on Dairy Management Practices- "Dairy Farming" (DugdhaVyavasaya) is recommended as an ICT tool for effective dissemination of information among the dairy farmers.

**शिकारत** : दुग्ध उत्पादक शेळीपालकांमध्ये माहितीचा प्रसार होणेकरिता पशुविज्ञान व पशुसंवर्धन विस्तार शिक्षण विभाग, नागपूर पशुवैद्यक महाविद्यालयाने माहिती तंत्रज्ञानाचा वापर करून विक्रीत केलेले "दुग्धव्यवसाय" हे ऑनलाईन आधारित मोबाईल एप्लिकेशन ऑप दुग्ध उत्पादक शेळीपालकांनी वापरण्याची शिकारत करण्यात येते.

**12. Project Title** : Effect of electron beam irradiation on microbiological qualities of modified atmospheric packaged raw chicken stored at refrigeration temperature.

**Investigators** : P.A. Jangale, R.J. Zende, A.M. Patilkar and V.M. Vaidya

**Name of the college** : Mumbai Veterinary College, Mumbai.

**Recommendation** : Electron beam irradiation at the dose rate of 3.0 kGy for raw chicken packaged using modified atmospheric packaging is recommended for the shelf life extension upto 20 days at refrigeration temperature.

**शिकारत** : कुकूट मांस नमुन्याची सुधारित वातावरणीय पॅकेजिंगमधील शीत तापमानास साठवणूक क्षमता 20 दिवसांपर्यंत वाढविण्यासाठी इलेक्ट्रॉन विकिरणकरणाचे 3.0 किलोग्रे हे प्रमाण वापरण्याची शिकारत करण्यात येत आहे.

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**MAFSU,  
Template – College Website(s)**

**Technology / Mobile Applications Software Developed by the Department of VAHEE:**

<b>Sr. No.</b>	<b>Name of the Technology Developed under Sponsorship / Funding Agency, if any</b>	<b>Name of the Inventor(s)</b>	<b>Adaption and Coverage in the Jurisdiction of the University</b>
1.	Software Developed: Mobile Application Developed on Goat Farming Management Application	Nandeshwar Jishant Dalitkumar, <b>Dr. Sariput P. Landge, Dr. Vaishali V. Banthiya</b> , Dr. S. S. Chopde, Dr. A. P. Dhok and Shri. D. V. Patil	Published on MAFSU Website <a href="http://www.mafsu.in">www.mafsu.in</a>
2.	Software Developed: Mobile Application Developed on Desi Bird / Poultry Farming Application	Khobragade Jotshana Ashok, <b>Dr. Vaishali V. Banthiya, Dr. Sariput P. Landge</b> , Dr. A. P. Dhok, Dr. M. M. Kadam and Shri. D. V. Patil	Published on MAFSU Website <a href="http://www.mafsu.in">www.mafsu.in</a>
3.	Software Developed: Mobile Application Developed on Dairy Farming Management Application	Nitin Kumar Mishra, <b>Dr. Sariput P. Landge, Dr. Vaishali V. Banthiya</b> , Dr. S. S. Chopde, Dr. A. P. Dhok and Shri. D. V. Patil	Published on MAFSU Website <a href="http://www.mafsu.in">www.mafsu.in</a>
4.	Website Developed: ( <a href="http://www.nvclivestockfarmersclub.com">www.nvclivestockfarmersclub.com</a> )	<b>Dr. Sariput P. Landge</b> <b>Dr. Vaishali V. Banthiya</b>	For the Farmers Use in the year 2016.