

# **SRI VENKATESWARA VETERINARY UNIVERSITY, TIRUPATI**



**FACULTY OF VETERINARY, DAIRY & FISHERY  
SCIENCE**

## **VOLUME-I**

**Common & Supporting Courses  
syllabus**

**(As per ICAR Regulations-2021 and Committee  
recommendations)**

differentiating pathways- clinical application- regenerative medicine vs traditional medicine

### **Practicals**

- Approaches For Nano Material Preparation
- Preparation of silver nano particles
- Preparation of Nano Zinc oxide by chemical process.
- Preparation of chitosan nano particles
- Preparation of Nano cellulose
- Characterization
- Evaluation
- Culturing of stem cells
- Clinical application on animals.

## **RPE-700                      RESEARCH AND PUBLICATION ETHICS                      (1+1)**

### **Theory**

#### **RPE 01: Philosophy and Ethics**

- Introduction to philosophy: definition, nature and scope, concept, branches
- Ethics: definition, moral philosophy, nature of moral judgements and reactions

#### **RPE 02: Scientific Conduct**

- Ethics with respect to science and research
- Intellectual honesty and research integrity
- Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
- Redundant publications: duplicate and overlapping publications, salami slicing
- Selective reporting and misrepresentation of data

#### **RPE 03: Publication ethics**

- Publication ethics: definition, introduction and importance
- Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.
- Conflicts of interest
- Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
- Violation of publication ethics, authorship and contributorship
- Identification of publication misconduct, complaints and appeals
- Predatory publishers and journals

### **Practice**

#### **RPE 4: Open Access Publishing**

- Open access publications and initiatives
- SHERPA/ RoMEO online resource to check publisher copyright and self-archiving policies
- Software tool to identify predatory publications developed by SPPU
- Journal finder/ journal suggestion tools, viz., JANE, Elsevier Journal Finder, Springer Journal Suggested, etc.

#### **RPE 05: Publication Misconduct**

##### A. Group Discussions

- Subject specific ethical issues, FFP, authorship
- Conflicts of interest
- Complaints and appeals: examples and fraud from India and abroad

##### B. Software tools

- Use of plagiarism software like Tumin, Urkund and other open source software tools

#### **RPE 06: Databases And Research Metrics**

##### A. Databases

- Indexing databases
- Citation databases: Web of Science, Scopus, etc.

##### B. Research Metrics

- Impact Factor of journal as per Journal Citation Report, SNIP, SIR, IPP, Cite Score
- Metrics: h-index, g index, i10 index, altmetrics

Oxford & TBH.  
 B Jirli, Deepak De & GCKendadamth 2005. Information and communication technology and sustainable development, Ganga Kaveri Publ. House, Varanasi.  
 Friedrich Kuhlmann. IT Applications in Agriculture: Some Developments and Perspectives, Institute of Agricultural and Food Systems Management, Germany  
 G.L. Ray, 2006. Extension communication and management. Kalyani Publ.  
 Langley, Dennis, Shain Michael (1985): Dictionary of Information Technology.  
 R Saravanan 2010. ICTs for agricultural extension, New India Publ. Agency.  
 Sharma, GRK.2005. Cyber Livestock Communication & Extension Education. Concept Publications, New Delhi.  
 S.C. Mittal. Role of Information Technology in Agriculture and its scope in India.  
 Shaik N Meera, 2008. ICTs in agricultural extension tactical to practical. Ganga Kaveri

## **RPE 600 RESEARCH AND PUBLICATION ETHICS (1+1)**

### **Overview**

This course has total 6 units focusing on basics of philosophy of science and ethics, Research integrity, Publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, Research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course.

### **Theory**

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- Ethics: definition, moral philosophy, nature of moral judgements and reactions

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- Metrics: h-index, g index, i10 index, altmetrics



# SRI VENKATESWARA VETERINARY UNIVERSITY

Administrative Office: Tirupati, A.P – 517 502

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Cir.Memo.No.4713/Res(A3)2008

Dated.24.03.2018

Sub:- SVVU, Tirupati – Action plan for the implementation of Minutes of Research and Extension Advisory Council Meeting (REAC) of SVVU held on 31.10.2017 at Administrative Office, SVVU, Tirupati – Copy Communicated – Regarding.

Ref:- 1. Univ.Proc.No.4713/Research(A3)/2008, Dated:19.09.2017  
2. Univ.Proc.No.4713/Research(A3)/2008, Dated:12.10.2017  
3. Univ.Memo.No.4713/Res(A3)2008, Dated.18.12.2017

-:oOo:-

Through the reference 1<sup>st</sup> cited, orders were issued constituting the Research and Extension Advisory Council Meeting (REAC) of SVVU and meeting was conducted on 31.10.2017 at Admn.Office, SVVU, Tirupati vide reference 2<sup>nd</sup> cited. A copy of the Minutes of the meeting of Research and Extension Advisory Council was communicated to all the Members for taking further action vide reference 3<sup>rd</sup> cited.

In continuation of the Cir.Memo under reference 3<sup>rd</sup> cited, I am enclosing herewith action plan for the implementation of Minutes of Research and Extension Advisory Council Meeting (REAC) of SVVU on 31.10.2017 at Administrative Office, SVVU, Tirupati.

Hence, all the members covered are requested to take action as early as possible.

Encl: As stated above.

**E.RAGHAVA RAO**  
**DIRECTOR OF RESEARCH &**  
**SECRETARY OF REAC, SVVU,**  
**TIRUPATI.**

- 1 The Hon'ble Vic-Chancellor, SVVU, Tirupati
- 2 The Director of Research, SVVU, Tirupati.
- 3 The Dean, Faculty of Veterinary Science, SVVU, Tirupati.
- 4 The Dean of Fishery Science, SVVU, Tirupati.
- 5 The Dean of Dairy Science, SVVU, Tirupati.
- 6 The Director of Extension, SVVU, Tirupati.
- 7 The Director of Animal Husbandry, Govt. of A.P, NTR Super Specialty Veterinary Hospital, Labbipet, Vijayawada.
- 8 The Commissioner of Fisheries of A.P, Poranki, Vijayawada.
- 9 The Chief Executive Officer, Andhra Pradesh Livestock Development Agency, Veterinary Polyclinic Campus, Kothapeta, Guntur.
- 10 The Managing Director, AP Sheep & Goat. Dev. Co-operative Federation., Veterinary Polyclinic Campus, Kothapeta Guntur.
- 11 The Managing Director, Andhra Pradesh Dairy Development Co-operative Federation, Shyamalanagar, Guntur:
- 12 Ms.Haseena Khatun, Sri Ratnananda Dairy Farm, Srikalahastri, Chittoor District.
- 13 Sri Ch.V.K.Narasimha Rao, Secretary, Sri Prakash Educational Institutions, NH-5, Payakaraopet, Visakhapatnma District-531126.
- 14 Sri Yerragodla Krishna, S/o Balaiah, Apparajupalli, CK Dinne Mandal, Kadapa Dist.
- 15 Sri Seva Naik, NMC Thanda, Somandepalli Mandal, Anantapur District.
- 16 Dr.K.Somi Reddy, Joint Managing Director, Srinivasa Hatcheries Pvt.Ltd. Gayatrinagar.

- 18 Dr.T.Krishna Reddy, Director, M/s Srinivasa Hatcheries Pvt.Ltd, Gayatrinagar, B circle, Vijayawada-520 008.
- 19 Sri M. Sitarama Raju, President, A.P Fisheries Farms Association, Bujabalapatnam, Kakinada.
- 20 The Associate Dean, College of Veterinary Science, Tirupati/NTR College of Veterinary Science, Gannavaram /College of Veterinary Science, Proddatur /College of Veterinary Science, Garividi /College of Fishery Science, Muthukur and College of Dairy Technology, Tirupati.
- 21 **All Head of the Research Stations/KVK, SVVU., Tirupati.**
  - The Principal Scientist & Head, Livestock Research Station, Garividi.
  - The Professor & Officer In-charge, Cattle Project, LRS, Lam Farm, Guntur.
  - The Principal Scientist & Head, Fisheries Research Station, Undi.
  - The Professor & Head, State Level Diagnostic Laboratory, SVVU, Tirupati.
  - The Principal Scientist & Head, AICRP on Pigs, Tirupati.
  - The Principal Scientist & Head, LRS, Palamaner.
  - The Scientist & Head, LRS, Siddaramapuram.
  - The Scientist & Head, Livestock Research Station, Mahanandi.
  - The Principal Scientist & Head, FRS, Kakinada.
  - The Principal Scientist & Head, BRS, Venkataramannagudem.
  - The Senior Scientist & Head, KVK, Lam, Guntur.
- 22 The Professor & University Head, Department of Veterinary Anatomy, College of Veterinary Science, Tirupati.
- 23 The Professor & University Head, Department of Veterinary Pathology, College of Veterinary Science, Tirupati.
- 24 The Professor & University Head, Department of Animal Genetics & Breeding, NTR College of Veterinary Science, Gannavaram.
- 25 The Professor & University Head, Department of Livestock Production & Management, NTR College of Veterinary Science, Gannavaram.
- 26 The Professor & University Head, Department of Veterinary Gynecology & Obstetrics, NTR College of Veterinary Science, Gannavaram.
- 27 The Professor & University Head, Department of Veterinary Medicine, College of Veterinary Science, Tirupati.
- 28 The Professor & University Head, Department of Fishery Extension, Principal, Sri MVKR Fisheries Polytechnic, Bhavadevarapalli, Krishna District.
- 29 The Professor & University Head, Department of Dairy Technology, College of Dairy Technology, Tirupati.
  - Copy to the PS to Vice-Chancellor, SVVU, Tirupati for information of Hon'ble Vice - Chancellor.
  - Copy to PA to Comptroller, SVVU, Tirupati.
  - Copy to Technical Officer to Director of Research for take necessary action.
  - Copy to SF/SC.

//F.B.O//

*Lakshmi Narayan*  
SUPERINTENDENT



**SRI VENKATESWARA VETERINARY UNIVERSITY**

Administrative Office, Dr. Y.S.R Bhavan, Tirupati

**Circular Memo. No. 5575/SLTP/Res/2018**

**Dated: 14.06.2022**

**Computer. No.400332**

Sub:- SVVU, Tirupati – XV State Level Technical Programme (SLTP) meeting, conducted from 6<sup>th</sup> to 8<sup>th</sup>, June, 2022 - Minutes of Meeting - communication - Regarding.

Ref:- Univ. Cir. Memo. No. 5575/SLTP/Res/2018, dated: 18.05.2022

-:oo0oo:-

The Minutes of Meeting of the XV State Level Technical Programme (SLTP) and the meeting on the Concept notes and other research proposals to the external funding agencies like DST, DBT, for the year 2022-23, conducted for the period from 06.06.2022 to 08.06.2022, is hereby communicated for necessary action.

**Dr K. SARJAN RAO**  
**DIRECTOR OF RESEARCH**

To

All the Heads of Research Stations Lam, Guntur/BRS, VRgudem/LRS, Siddarampuram/Palamaner/Mahanandi//Garividi, SLDL, SGRS, Banavasi, AICRP on Pigs.

The Coordinator, CCVEC, SVVU, Tirupati.

All the Associate Deans of Colleges, Tirupati/Gannavaram/Proddatur/Garividi/CDT, Tirupati under SVVU

Copy to all the University Heads of Departments Through the concerned Associate Deans of the respective Colleges

Copy to PS to Hon'ble Vice-Chancellor, SVVU., Tirupati.

Copy to SF/SC.

//F.B.O//

*N. Sarjan Rao*  
14/6/22  
SUPERINTENDENT



## Minutes of the XV State Level Technical Programme and Meeting for the Approval of Research Concept Notes

The XV SLTP and the meeting for the approval of Research concept notes for DBT and DST was held from 6<sup>th</sup>- 8<sup>th</sup> June, 2022 at Conference Hall ,Sri Venkateswara Veterinary University ,Tirupati. The SLTP meeting was chaired by Hon'ble Vice-Chancellor, SVVU and the meeting was convened by Director of Research. The following faculty members, Associate Deans, heads of the research stations and expert invitees were attended.

### EXPERTS:

1. **Dr. T. Siva Kumar**, Professor & Head, Dept. of LPM, Madras Veterinary College, Chennai
2. **Dr. G. Dhinakar Raj**, Professor & Head, Dept. of Animal Biotechnology, Madras Veterinary College, Chennai

SLNo	NAME	DESIGNATION
1.	Dr. K. Nageswara Rao	Associate Dean, CDT, Tirupati
2.	Dr. B. Sreedevi	Associate Dean, NTR CVSc., Gannavaram
3.	Dr. V. Vaikunta Rao	Associate Dean, CVSc., Prodattur
4.	Dr. V. Chengalva Rayulu	Associate Dean, CVSc., Garividi
5.	Dr. K. Adilaxmamma	Associate Dean, CVSc., Tirupati
6.	Dr. D. Narendranath	Professor & Head, Dept., of Poultry Science
7.	Dr. J.V. Ramana	Professor & Head, Dept., of Animal Nutrition
8.	Dr. D. Srinivas Kumar	Professor & Head, Dept., of Animal Nutrition
9.	Dr. B. Devasena	Professor & Head, Dept., of Animal Nutrition
10.	Dr. A. Jagadeesh Babu	Professor & Head, Dept., of VPH
11.	Dr. R.V. Suresh Kumar	Professor & Head, Dept., of Surgery
12.	Dr P. Malakondaiah	Professor & Head, Dept., of Parasitology
13.	Dr. P. Ashalatha	Professor & Head, Dept., of LPM
14.	Dr. D. Rani Prameela	Professor & Head, Dept., of SLDL
15.	Dr. S. Shakeela	Professor & Head, Dept., of Poultry Science
16.	Dr. Ch. Srilatha	Professor & Head, Dept., of Pathology
17.	Dr. K. Padmaja	Professor & Head, Dept., of Biochemistry
18.	Dr. T.S. Chadrasekhara Rao	Professor & Head, Dept., of Anatomy
19.	Dr. B. Eswara Rao	Professor & Head, Dept., of LPT
20.	Dr. Ch. Venkatasessaiah	Professor & Head, Dept., of LFC
21.	Dr. Ch. Srinivasa Prasad	Professor & Head, Dept., of Physiology
22.	Dr. T. Srinivasa Rao	Professor & Head, Dept., of VPH
23.	Dr. B. Shobhamani	Professor & Head, Dept., of Vety. Medicine
24.	Dr. G.R.K. Sharma	Professor & Head, Dept., of VAHE
25.	Dr. Y. Ravidra Reddy	Professor & Head, Dept., of LPM
26.	Dr. R. Vinoo	Professor & Head, Dept. of AGB
27.	Dr. P. Ananda Kumar	Professor & Head, Dept., of Vety. Microbiology
28.	Dr. K. Veerabrahmaiah	Professor, Dept. of VGO
29.	Dr. M. Mutha Rao	Officer In-Charge, Cattle Project, Guntur
30.	Dr. R. Venu	Principal Scientist & Head

31.	Dr. K. Ananda Rao	Principal Scientist & Head
32.	Dr. A.V.N. Siva Kumar	Associate Professor, Dept., of Physiology
33.	Dr. M. Sreevani	Associate Professor, Dept., of Vety. Microbiology
34.	Dr. M. Kalyan Chakravarthi	Senior Scientist & Head
35.	Dr. Satish Kumar	Scientist & Head
36.	Dr. M.V. Dharma Rao	Scientist & Head
37.	Dr. M. Ravi Kumar	Scientist
38.	Dr. M. Muralidhar	Assistant Professor & Head, Dept., of AGB
39.	Dr. P. Kalyani	Assistant Professor & Head, Dept., of Vety. Biochemistry
40.	Dr. G. Vijayabhaskar Reddy	Assistant Professor & Head, Dept., of LPT
41.	Dr. Iqbal Hyder	Assistant Professor, Dept. of VPB
42.	Dr. E. Tirupati Reddy	Assistant Professor & Head, Dept. of LFC
43.	Dr. S. Gangu Naidu	Assistant Professor, Dept. of VPB
44.	Dr. Y. R. Ambedkar	Assistant Professor, Dept. of LPT

#### Day-1 (6-6-2022)

Reviewed the research work progress of all the 18 externally funded projects that have been carried research work up to 2021. Reviewed the progress of work being carried out by three laboratories of SVVU, RKVY projects. The following recommendations were made.

1. While reviewing the externally funded project entitled Modelling exposure to the biological hazards in the Dairy chains of Andhra Pradesh to inform food safety policy operated by Dr. T. Srinivasa Rao the experts have opined and recommended to involve more number of researchers in the field of dairy technology and food chain system to identify the dairy products where the biological hazards may occur more frequently in the value chain system.
2. The Principal Investigators of the external funded projects were asked to involve the PG/Ph.D students to carry out their research programmes in the existing projects.
3. The heads of the laboratories ( SLDL, Pratap V Reddy feed and forage analytical laboratory and RFAQCL) should take immediate steps for the NABL accreditation and are requested to submit compliance with in a month period to the Director of Research / Dean, faculty of Veterinary Science.
4. All the industry sponsored projects should be carried out with the approval of the university only. The industry should approach the university first and then it will be scrutinized by the guidelines framed by the committee constituted by the university. The following members are hereby constituted to form the guidelines on the industrial sponsored /product testing projects.

A) Dr. Vaikunta Rao, Associate Dean, CVSc., Prodatgur

B) Dr. G.Srinivasa Rao, Professor & Univ. Head, Dept. of Pharmacology & Toxicology, CVSc., Tirupati

C) Dr.Y.Ravindra Reddy, Professor & Univ. Head, Dept. of LPM, CVSc.,  
Tirupati

D) Dr.B.Eswar Rao, Professor & Univ. Head, Dept. of LPT, NTR CVSc.,  
Gannavaram

5. The following concept notes have been presented by the concerned proposed Principle Investigators for scrutiny at the SLTP.
1. Therapeutic potential of symbiotic in treating diarrhoea of calves and lambs.
  2. Improvement of tenderness and quality of spent hen meat by ageing and different packaging methods.
  3. Holistic approach on Treatment, Control and Management of Mastitis in dairy animals.
  4. Propagation of Knowledge about processing of Livestock food products for doubling farmers income in rural sector
  5. Exploring the putative agglutinins in ruminant saliva and assessment of its role in anti-bacterial action.
  6. Biosynthesized nano zinc and copper feeding in buffaloes.
  7. To study the effect of lycopene and Curcumin on Tyrosine kinase and Phospho Inositide 3 Kinase signaling pathways in canine mammary tissue.
  8. Utilization of slaughter house by-products for process optimization of pet food by extrusion technology.
  9. Genetic diversity of Avian Paramyxoviruses in India and development of molecular diagnostics.
  10. A multi-pronged approach to target *Staphylococcus aureus* infections, and its potential to mitigate antimicrobial resistance.
  11. Standardization of feeding regimes using ICT tools to augment maximum milk production in tropical cattle and buffaloes through Ration Balancing Techniques.
  12. Deciphering the role of Vitamin-D in modulating the immune responses to alleviate respiratory tract infections in Sheep & Goat.
  13. Development of Recombinant protein based diagnostics and vaccine against Canine Leptospirosis using Reverse Vaccinology and Immunoinformatics
  14. Metabolic profile in crossbred cows during transition period to prevent certain metabolic diseases.
  15. Doubling the income of farmer producing organisations (fpo) through integration of backyard poultry and horticulture.
  16. Mitigation of chlorpyrifos toxicity by phytochemical mediated induction of intestinal glycoprotein (P-gp) expression'
  17. Bio-fortified Cereal Crop Residues – Their Effective Utilization for Improved Milk Production in Buffaloes.
  18. Epigenetic investigation of tannin and folate mediated putative enhancement of twinning rate in Vizianagaram sheep.
  19. Deciphering Peripheral Blood Mononuclear Cell Specific Membrane Protein Signatures to Identify Putative Markers for Early Cytodiagnosis in Buffaloes.
  20. Genome wide association studies in cattle towards methane mitigation.
  21. Mapping of Rumen microbial diversity and Greenhouse gases of livestock through metagenomics and Gas chromatography in (AP).
  22. Chitosan impregnated antibiotics to combat antimicrobial resistance in livestock and poultry.

23. Diagnostic imaging and therapeutic studies on milk flow disorders in cattle.
24. Development of Recombinant fimbrial vaccine against ovine footrot..
25. Bio energy potential of Super napier grass and silage cidigested with cattle, buffalo and poultry manure.

All the Concept Notes were refined as per the suggestions of the Chairman, Expert Members and Interactions of the Members of the SLPT.

Resolved to send the concept notes at serial numbers from 1 to 7 to Department of Science & Technology, New Delhi and the serial numbers from 8 to 25 to Department of Biotechnology, New Delhi

#### **Day-2 (7-6-2022)**

**I. The progress of research achievements by the Heads of Research Stations during the year 2021-22 of the following Livestock Research Stations were presented and critically reviewed by the expert members and also by SLTP participants.**

- i. Livestock Research Station, Lam, Guntur
- ii. Livestock Research Station, Mahanandi
- iii. Livestock Research Station, Palamaner (Plan & Non-Plan)
- iv. Buffalo Research Station, Venkataramannagudem
- v. Livestock Research Station, Garividi
- vi. Sheep and Goat Research Station, Banavasi
- vii. Livestock Research Station, Siddaramapuram ( Head of the Station is on leave)
- viii. AICRP On Pigs, Tirupati

**II. Based on the research progress, the research mandate for the following research stations for the year 2022-23 have been finalized and is shown below.**

**A. Research Mandate of Livestock Research Station (LRS), Lam, Guntur for 2022-23**

**Title: Conservation and Propagation of Ongole cattle**

**Objectives:**

1. Selective breeding of Ongole cattle for elite bull production
2. Supply/ Sale of pedigree tested semen and embryos
3. Propagation of IVF-ET technology for production of superior bulls and bull mothers.
4. Carrying out the proposed objectives at Lam, Guntur under AP Mission Punganur Project.

## **Technical program of LRS, Lam for 2022-23**

### **1. Parameters to be recorded:**

- Age (Months) and Weight (Kg) at First Conception
  - Age at first calving (Months)
  - Service Period (Days)
  - Calving Interval (Days)
  - Dry Period (Days)
  - Lactation Length (Days)
  - Lactation Milk Yield (Kg)
  - Peak Yield (Kg)
2. A minimum of five elite bulls selected based on the pedigree will be used as breeding bulls to produce and preserve at least 5000 doses per bull.
  3. Elite cows will be used to produce embryos through IVF technology.
  4. Embryos will be transferred to low pedigree surrogate cows of our university farms as well as to farmers to produce superior progeny.
  5. Sale/Supply of semen of Ongole breed to Government agencies and farmers
  6. Networking of data with LRS, Mahanandi and state owned Ongole Conservation Projects.

## **B. Research Mandate of Livestock Research Station, Mahanandi**

### **Objectives**

- Recording growth, production and reproduction performance of Ongole cattle through selective breeding and assisted reproductive technologies.
- Sale/supply of Ongole cattle to the farmers and Government agencies for breed improvement.
- Propagation of perennial fodder slips/seed and to establish rural fodder banks and data recording.

### **Technical programme**

- Recording of growth rates at birth, 1-3 months at monthly interval, six months and twelve months of age.
- A minimum of 5 elite bull semen is randomly allotted to inseminate breeding females.

SL.NO	PARAMETER
	<b>GROWTH</b>
1	Birth wt (Kg)
2	Weight at One month (Kg)
3	Weight at Two months (Kg)
4	Weight at three month (Kg)
5	Weight at six months (Kg)
6	Weight at One Year (Kg)
	<b>PRODUCTION &amp; REPRODUCTION PERFORMANCE</b>
1	Age at 1 <sup>st</sup> conception (Months)
2	Weight at 1 <sup>st</sup> conception (Kg)
3	Age at 1 <sup>st</sup> calving (Months)
4	Service period (Days)
5	Calving interval (Days)
6	Dry period (Days)
7	Lactation yield (Kg)
8	Lactation length (Days)
9	Peak yield (Kg)

For, the above Ongole Conservation Projects the targeted objective is to develop "Milk Line" adding value through milk production to Ongole cattle without much change in the majestic gait

#### **C. Research Mandate of Livestock Research Station, Palamaner ( Non Plan) Punganur Cattle Project**

##### **Objectives:**

- To improve the productive and reproductive performance of Punganur cattle
- To conserve the Punganur breed of cattle
- To strengthen IVF-ET Laboratory.

##### **Technical Programme**

- The productive and reproductive performance will be recorded at regular intervals.
- The growth studies will be recorded from 1-3 months at monthly interval, 6 months, 9 months and 1 year of age.
- Breedable Punganur cattle will be naturally mated with available elite Punganur bulls and also the selected animals will be serviced by Artificial Insemination.

#### **D. Research Mandate of Buffalo Research Station, V.R.Gudem**

##### **Objectives:**

- Recording growth, production and reproduction performance of Murrah buffaloes
- Sale/supply of surplus male buffalo calves to the farmers and Government agencies for breed improvement.
- Propagation of perennial fodder slips/seed

- Networking with NBAGR, Karnal to assess the genetic potential of elite stock.

#### Technical programme

- Recording of growth rates at birth, 1-3 months at monthly interval, six months and twelve months of age.
- A minimum of 5 elite bull semen is randomly allotted to inseminate breeding females.
- Targets \*

SL.NO	PARAMETER
	<b>GROWTH</b>
1	Birth wt (Kg)
2	Weight at One month (Kg)
3	Weight at Two months (Kg)
4	Weight at three months (Kg)
5	Weight at six months (Kg)
6	Weight at One Year (Kg)
	<b>PRODUCTION &amp; REPRODUCTION PERFORMANCE</b>
1	Age at 1 <sup>st</sup> conception (Months)
2	Weight at 1 <sup>st</sup> conception (Kg)
3	Age at 1 <sup>st</sup> calving (Months)
4	Service period (Days)
5	Calving interval (Days)
6	Dry period (Days)
7	Lactation yield (Days)
8	Lactation length (Days)
9	Peak yield (Kg)

\*Targeted Benchmark values of NBAGR, Karnal

#### E. Research Mandate of Livestock Research Station, Palamaner (ICAR Plan, Nellore Jodipi)

##### Objectives (As per ICAR Mandate)

- To improve the productivity of Nellore Jodipi Sheep by Selective breeding
- Distribution of superior ram lambs to the farmers for genetic improvement of their flocks.

##### Technical Programme

- As per the initial technical programme, a flock of 465 breedable sheep were maintained and later reduced the breedable strength as 354 in 2021-22.
- Male lambs will be selected for breeding by sequential selection based on body weight at weaning and six months of age and will be bred with available ewes at about 1.5 years of age.

## **F. Research Mandate of Livestock Research Station, Garividi**

### **Objectives:**

- Targeted enhancement of Flock Strength to 500 Numbers.
- Genetic improvement of the Vizianagaram sheep through the selective breeding based on Six months body weight.
- To record data on Reproductive performance and few novel traits in Vizianagaram sheep
- Sale/Supply of germplasm to the farmers and government agencies

### **Technical Program:**

The data on Vizianagaram sheep will be recorded for the following traits

1. Age (Months) and body weight (Kg) at first service
2. Age (Months) and body weight (Kg) at first successful service
3. Age (Months) and body weight (Kg) at first lambing
4. Topping percent
5. Lambing percent
6. Body weight at birth and weekly intervals up to six months, nine and twelve months of age (Kg).

## **G. Research Mandate of Sheep and Goat Research Station, Banavasi**

### **Objectives:**

- Targeted enhancement of Flock Strength to 200 Numbers.
- Genetic improvement of the Nellore brown sheep through the selective breeding
- To record data on Reproductive performance and few novel traits in Nellore brown sheep
- To Sale/Supply of surplus germplasm to the farmers and government agencies

### **Technical Program:**

The data on Nellore brown sheep will be recorded for the following traits

1. Age (Months) and body weight (Kg) at first service
2. Age (Months) and body weight (Kg) at first successful service
3. Age (Months) and body weight (Kg) at first lambing
4. Topping percent
5. Lambing percent
6. Body weight at birth and weekly intervals up to six months, nine and twelve months of age (Kg).



## H. Research Mandate of AICRP on Pigs, Tirupati (As per ICAR Mandate)

### Objectives

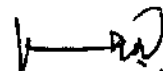
- a. To study the performance of 75% LWY crossbred pigs under optimum management conditions.
- b. To produce crossbreds by inter-se mating.
- c. To evolve economic pig ration(s) with locally available feed ingredients, conventional or unconventional.
- d. To assess animals from within 75% with faster growth on economic ration(s) to produce superior strain of improved pig.
- e. To study the incidence of various diseases in pigs and to suggest areas for undertaking research to provide optimum health cover.

### Technical Programme

- Minimum 30 breedable sows unit should be maintained with a sex ratio of 1:3 and thus 10 sires (2 sires from each 5 unrelated sired lines) need to be maintained by each of the centres.
- Selection of male animals should be based on weaning weight (best 25%) and 8 month body weight (best 5%), based on two state sequential selection.
- Selection of female animals should be based on dam's litter size at birth ( $\geq 8$ ) and weaning weight (best 25%) and number of functional teats (at least 6 pairs).
- Three farrowings per sow need to be recorded. Three farrowings per sow should be completed in 2 years.

### III. Establishment of Poultry Research Station:

It was discussed and resolved to establish a research station on poultry which can address the researchable issues related to poultry industry and backyard poultry rearing. The Professor & Head, Department of Poultry Science, NTR CVSc, Gannavaram was requested to prepare a report on the need, objectives and financial implications of the poultry research station in consultation with the heads of the departments of poultry science of other campuses and other experts.



DIRECTOR OF RESEARCH

To

All the Heads of Research Stations Lam, Guntur/BRS, VRgudem/LRS, Siddaramapuram/Palamaner/Mahanandi//Garividi, SLDL, SGRS, Banavasi, AICRP on Pigs. The Coordinator, CCVEC, SVVU, Tirupati.

All the Associate Deans of Colleges, Tirupati/Gannavaram/Proddatur/Garividi/CDT, Tirupati under SVVU

Dr.M.Mutha Rao, PI of RKVY project and Professor & Officer-in-Charge, LRS, Lam Farm, Guntur.

Dr.R.Venu, PI of RKVY project and Principal Scientist & Head, Livestock Research Station, Palamaner.

Dr.M.V.Dharma Rao, PI of RKVY project and Sr.Scientist & Head i/c, LRS,Mahanandi.

Dr.K.Ananda Rao, PI of RKVY project and Principal Scientist & Head, BRS, Vr'gudem.

Dr.K.V.Subramanyam, PI of RKVY project and Principal Scientist & Head, KVK, Lam, Guntur.

Dr.A.Jagadeesh Babu, Co-PI of RKVY project Professor, Dept.of VPHE, through the Associate Dean, CVSc, Tirupati.

Dr.T.Srinivasa Rao, Co-PI of RKVY Project and Professor & Head, Dept.of VPHE, through the Associate Dean, NTR CVSc, Gannavaram.

Dr.Ch.Bindu Kiranmayi, Co-PI of RKVY project and Assistant Professor, Dept.of VPHE, through the Associate Dean, NTR CVSc, Gannavaram.

Dr.H.Srinivasa Naik, PI of RKVY project and Sr.Scientist i/c & Head, Livestock Research Station, Siddaramapuram.

Dr.K.V.Subramanyam, PI of RKVY project and Principal Scientist & Head, KVK, Lam, Guntur.

Dr.K.Veerabramhaiah, Co-PI of RKVY project and Professor, Dept.of Vety.Gynecology & Gynecology, through the Associate Dean, College of Veterinary Science, Tirupati.

Dr.D.Srinivas Kumar, PI of RKVY project and Professor, Dept.of Animal Nutrition, through the Associate Dean, College of Veterinary Science, Garividi.

Dr.B.Devasena, Professor, Department of Animal Nutrition through the Associate Dean, College of Veterinary Science, Tirupati.

Dr J.V. Ramana, Professor & Head, Dept of Animal Nutrition, NTR CVSc, Gannavaram

Dr D. Rani Prameela, Professor & Head, SLDL, Tirupati

Dr.S.Shakila, PI & Professor & Head, Dept. of Poultry Science, through the Associate Dean, CVSc., Tirupati

Dr. A.Jagadeesh Babu, PI & Prof. of Vety. Public Health & Epidemiology, through the Associate Dean CVSc. Tirupati

Dr.AVN Sivakumar, Assoc. Prof., Dept. of Physiology , through the Associate Dean, CVSc., Tirupati

Dr. K.Nagaraja Kumari, Associate Prof. of Poultry Science, , through the Associate Dean, NTR CVSc., Gannavaram.

Dr.V.Vaikunta Rao, Associate Dean, CVSc., Proddatur

Dr.M.Srivani, Assoc. Prof. of Vety. Microbiology, through the Associate Dean, NTR CVSc., Gannavaram

Dr. P.Ashalatha, Prof., Dept. of LPM, CVSc, Garividi

Dr.P.Venkataseshaiah, Prof., & Head of LFC , through the Associate Dean , NTR CVSc., Gannavaram

Dr.P.Anand Kumar, Dept. of Vety. Microbiology, through the Associate Dean, NTR CVSc., Gannavaram

Dr.T.Srinivasa Rao, Professor & Head, Dept. of Vety. Public Health & Epidemiology, through the Associate Dean, NTR CVSc., Gannavaram

Dr.E.Tirupati Reddy, Asst. Prof., Dept. of LFC, through the Associate Dean , CVSc., Proddatur

Dr. B.Eswara Rao, Prof. & Univ. Head, LPT, through the Associate Dean ,NTR CVSc,  
Gannavaram

Dr.K.Veera Bramhaiah, Prof. of Vety. Gynaecology & Obstetrics, , through the Associate  
Dean, CVSc., Tirupati

Dr.G.Vijaya Bhaskar Reddy, Assistant Professor & Head, Dept. of LPT, , through the  
Associate Dean, CVSc., Tirupati.

The Assistant Comptroller, RAO (RSZ), SVVU Campus, Tirupati/(CAZ), NTR CVSc, Campus,  
Gannavaram.

Copy to all the University Heads of Departments Through the concerned Associate Deans of the  
respective Colleges

Copy to the Technical Officer to the Director of Research, SVVU., Tirupati.

Copy to PS to Hon'ble Vice-Chancellor, SVVU., Tirupati.

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