Proceedings of the Half-yearly IRC Meeting held at ICAR-NRC on Mithun on 18.10.2017

Half Yearly IRC meeting was held in the Institute Meeting hall on 18.10.2017 under the chairmanship of the Director, ICAR-NRC on Mithun, to assess the progress of ongoing research work. In his opening remarks, the Chairman has pointed out the decrease in the number of publications, slow progress in budget utilization under research project and involvement of the scientist in various non-scientific activities. He urged to speed up the research activities and timely expenditure of allocated money under research projects.

The meeting was attended by the following Scientists:

1. Dr. Abhijit Mitra, Director, ICAR-NRC on Mithun
2. Dr. Nazrul Haque, Principal Scientist (AN)
3. Dr.(Mrs) Saroj Toppo, Principal Scientist (AN)
4. Dr. S. Mukherjee, Principal Scientist (AGB)
5. Dr. Meraj Haider Khan, Senior Scientist (AR)
6. Dr. Jayanta Kumar Chamuah, Scientist (AH)
7. Dr. Sapuni Stephen Hanah, Scientist (LPM)
8. Dr. Lalchamliani, Scientist (LPT)
9. Dr. Kobu Khate, CTO
10. Dr. Kezhavito Vipru, CTO

The progress of the ongoing projects was presented by the respective PI which was followed by a brief discussion. The suggestions/remarks of the house are as follows:

LPM Section:

Name of the Project: Genetic improvement of growth performance of Mithun (*Bos frontalis*) as a tool for breeding programme (PI: Dr. Sapuni Stephen Hanah: Start Date: May 2017, End Date: April 2020).

Remarks:

1. The data pertaining to the project, historical as well as the project period (e.g., Growth rate, Calving records, month wise calving frequency etc.,) should be presented in a graphical way with statistics
2. It was suggested to make another presentation after incorporating the suggestion within 10th November 2017.

Animal Health Section:

Name of the Project: Phyto-formulation for effective control against *Rhepicephalus microplus* and leech infestation in Mithun (PI: Dr. J. K. Chamuah)

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Remarks:

1. Statistical analysis of the data to be presented.
2. In order to avoid any bias, it was suggested to conduct blind fold assay.
3. Length and weight of the leech are to be recorded and the same type of leech to be taken for all the treatment and replication.
4. In addition, Tobacco leaf extract may also be tried.

Animal Physiology & Reproduction

Name of the Project: Optimization of Mithun semen freezing protocol through controlled freezing and minimizing sperm damage (PI; Dr. M. H. Khan; Date of Start: April 2014, End Date: September 2017)

Remarks:

1. Progress is satisfactory. PI was asked to submit the RPF-III.

Name of the Project: Development of Mithun based integrated farming system model for sustainability and livelihood security of small and marginal farmers (PI: Dr. M. H. Khan; Start Date: April 2014, End Date: March 2019)

Remarks:

1. It was brought to notice of the house that the ongoing QRT team has suggested to drop the project. However, after a thorough deliberation, it was suggested that a revised technical programme for integrating only Mithun and fish may be developed in consultation with CIBA/ CIFA or Fishery College, Roha, Assam and ICAR-RCNEHR, Barapani. The revised technical programme may develop within the month of November 2017 so that the same can be discussed again at the next meeting of QRT

Name of the Project: Evaluation of melatonin as a fertility marker in Mithun (*Bos frontalis*) bulls: Effect on circadian rhythm and seasonal variation in semen quality parameters (PI: Dr. M. H. Khan, Start date: December 2014, End date: December 2017) (DBT Funded)

Remarks:

1. Progress satisfactory

Name of the Project: Onset of puberty and induction of estrus: Role of Kisspeptin (Kiss1) in bovine species (Mithun and Cattle) (PI: Dr. M. H. Khan; Start Date: March 2014, End Date: September 2017) (DBT Funded)

Remarks:

The project has been completed and progress was found satisfactory.

Animal Nutrition Section

Name of the Project: Effect of feeding agro-industrial by-product based feeds on growth performance of Mithun and its adoption in field condition (PI: Dr. Nazrul Haque; Start Date: May 2017 End date: April 2018)

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Remarks:

1. Commensurating with the technical programme, it was suggested to get an optimum design of poly-house from IIT or such organization who are having specialization. And a prototype may be developed and relevant data such as how much material can be dried, keeping the quality of the dried material and cost involvement etc. to be recorded and considered.

Name of the Project: Effect of dietary supplementation of unsaturated fatty acid on conjugated linoleic acid (CLA) levels in milk and meat of Mithun (PL: Dr. Saroj Toppo; Start Date: May 2016; End Date: April 2018)

Remarks:

1. As decided during the earlier IRC and last meeting of QRT, the Project to be completed by December 2017. And the study is to be limited only to the fatty acid analysis of milk samples from 10 animals from the Farm and 10 animals from the field. The PI informed the house that as fatty acid analysis will be carried out from NIANP, Bangalore on payment basis, there is no issues of collaboration or sharing authorship.

Name of the Project: Profiling of gut microbiome of Mithun (PI: Dr. Saroj Toppo; Start Date: May 2017; End Date: April 2018)

Remarks:

1. The project work not yet initiated and PI was advised to start the project within a month

Animal Genetics and Breeding Section

Name of the Project: Genetic characterization of Mithun (*Bos frontalis*) population through mitochondrial genome sequencing (PI: Dr. S. Mukherjee; Start Date: June 2017; End date: March 2020)

Remarks:

Progress was found satisfactory

Pilot Study: Genetic Polymorphism Study of Mithun Beta Casein Gene

Remarks

50 animals were screened so far using bovine beta casein primers and found to bear A2A2 genetic variant. Further study is in progress.

Name of the Project: NMSHE (DST Funded)

Remarks:

Progress was satisfactory

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LPT Section

Name of the Project: Physicochemical properties of Mithun (*Bos frontalis)* (PI: Dr. Lalchamliani; Start Date: May 2017; End date: April 2018)

Remarks:

1. PI was suggested to include the Protein estimation of Mithun meat
2. PI was also suggested to expedite the process of fatty acid, amino acid and other profiling of mithun meat from CFTRI.

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(Nazrul Haque)
IRC Member Secretary