



**INDIAN COUNCIL OF AGRICULTURAL RESEARCH**  
**KRISHI BHAVAN: NEW DELHI – 110001**  
**(Animal Science Division)**  
**email: vineetbhasin.icar@nic.in**  
**Telefax 011-23387514**

**Dr. Vineet Bhasin**  
**Principal Scientist (AG&B)**

**F. No. AS/16/04/2013/ASR-II**

**Dated: 6<sup>th</sup> May, 2019**

To

**The Director,**  
ICAR-National Research Centre on Mithun,  
Jharnapani, Medziphema,  
Nagaland – 7970 106

**Subject: Research Advisory Committee (RAC) Proceedings of National Research Centre on Mithun, Jhanapani (Nagaland) - Approval – reg.**

**Sir,**

I am directed to refer to your letter No. NRCM(G)163 dated 12.04.2019 on the subject cited above and to convey the approval of the Council to the implementation of the following recommendations of the RAC made in its meeting held on 28<sup>th</sup> January, 2019 subject to the instructions contained against each:

<b>S.N.</b>	<b>Recommendations</b>	<b>Comments of the Director, NRC on Mithun</b>	<b>Comments of the ICAR</b>
1.	A consortium approach may be initiated with a well-planned structural programme involving line departments of different mithun rearing states, institutes and agencies for addressing the issues and activities related to mithun development and its promotion in the North-East Hill Region (NEHR) with a clear roadmap and fixed time targets for strengthening the nucleus herds by procuring true-to-breed males from the field and maintaining elite bulls at the Centre in different states for sustained genetic improvement of the local mithun herds by providing good quality community bulls, production of frozen semen of elitist among elite bulls and use of this frozen semen for fixed time artificial insemination (AI) after synchronization of estrus.	Agreed	Agreed. Roadmap for mithun breeding for NEHR may be developed by 30 <sup>th</sup> June, 2019 and submitted to Council. Timeline with targets for establishing Nucleus herd may also be submitted to Council by 30 <sup>th</sup> June, 2019.

2.	<p>The process should be initiated to develop specific meat and milk type animals adopting selective breeding of the best animals with requisite characteristics. As the heritability of related growth characteristics is high, meat type animal may be developed in the first place by selection of animals based on body weight gain and other growth characteristics. Considering the high socio-cultural and ethnic value of mithun and the widespread acceptance of a specific phenotype among the local communities of the Nagaland as the highest order of gift, attempt should also be made to develop a specific mithun line conforming true to the desired characteristics of white stockings, ash white patch on the forehead and short symmetrical outward pointing horns. The SNPs already identified in this regard should be revalidated.</p>	<p>Agreed, however, at this juncture, it may not be feasible for developing specific lines for meat and milk.</p>	<p>The institute needs to take up work on developing selection criteria/index for meat and milk separately including growth parameters. Males having typical breed characteristics needs to be selected for future breeding.</p>
3.	<p>Studies on mithun calf rumen development, early age nutritional requirement, supplementary feed and area-specific mineral mixture to mithun, while they are housed in a cost-effective comfortable shed by the rearers / farmers may be initiated.</p>	<p>Agreed.</p>	<p>Agreed</p>
4.	<p>As part of the project on "Physio-chemical properties of mithun meat" among the carcass cuts, detailed yield characteristics of major groups of muscles in hind and fore quarters; yields of major bones; different parts of gastro-intestinal tract including the rumen, reticulum, omasum and abomasums and yields of different fats such a subcutaneous, inter-muscular, kidney and omental fats needs to be studied.</p>	<p>Agreed.</p>	<p>Agreed</p>
5.	<p>Complete information on the health and disease profile of mithun may be documented systematically along with production and reproduction data. This information will be useful in retrospective studies that may be undertaken later on for comparative prevalence of various diseases and causes of mortality in different age groups of animals in different NEHR. Regular screening of animals at periodic intervals for brucellosis, tuberculosis and Johnes' disease need attention.</p>	<p>Agreed.</p>	<p>Agreed</p>

6.	The majority of the mithun population of the country is in Arunachal Pradesh, therefore, efforts should be made to have more outreach activities in different parts of the state with a higher density of mithun population. Some selected community herds of animals in both Nagaland and Arunachal Pradesh may be adopted by NRC-Mithun in specific areas for field demonstration of technologies and rearing practices standardized by the Centre. Efforts should be intensified to expedite infrastructural and other logistics functional works for empowerment of the Porba Mithun Farm and initiating tech-transfer activities.	Agreed.	Agreed
----	--	---------	--------

This issues with the approval of Competent Authority.

Yours faithfully,

  
(Vineet Bhasin)