

<b>Name of the project</b>	<b>Establishment of goat unit for conservation and revitalization of superior germplasm of Barbari goat</b>
<b>Funding agency</b>	<b>Rashtriya Krishi Vikash Yojna (RKVY), Lucknow (U.P.)</b>
<b>Year of start</b>	<b>2017-18</b>
<b>Year of completion</b>	<b>2020-21</b>
<b>Name of PI and Co-PI</b>	<b>Dr. M.K. Singh, Dr. Ahamad Fahim, Dr. D.K. Singh, Amit Kumar, Atul Gupta</b>
<b>Total budget</b>	<b>141.00 lakhs</b>

#### **Significant achievements:**

- A fully functional goat shed is available at ILFC-II unit where the animals purchased in the project are being kept and managed. The shed covers a total area of approx. 1290 m<sup>2</sup> which could accommodate 150-200 goats of different age groups. The shed has 20 goat pans in two rows/units (10 in each row) and three isolation pans for housing the animals. Both the rows/units are provided with open space on either side with wall fencing and GI feeders where the animals could move freely, feed and take rest. The shed is equipped with other required facilities such as fence, line feeding system, wide central feeding passage, watering system, fans and stores etc. for better management, health and hygiene of animals. The shed has storage facility to store straw, concentrate, feed and fodder used in animal feeding.
- A flock of elite Barbari goat has been established at ILFC-II, which is being reared scientifically for further multiplication through their progenies for breed conservation.
- Infrastructure and facilities created at farm for teaching, research and training activities of students and farmers.
- A fully functional laboratory is available in the department of Livestock Production Management for teaching and research purpose.
- A training programme on “Commercial Goat Farming” was organized for farmers and livestock from 2-6 March, 2021 in which 23 participants were given knowledge on practical goat rearing through lectures and visit of goat farm.

Apart from this experiments of PG students were also conducted at goat unit the details and achievements are summarized below:

i) Study conducted on “Effect of feeding *Moringa oliefera* leaves on growth performance of Barbari goat kids” the following conclusions were drawn.

- The dietary inclusion of *Moringa oliefera* leaves as replacement to concentrate in growing barbari goats resulted in increase in dry matter intake and performance of animals. The daily weight gain and feed utilization efficiency were higher for 10% replacement of concentrate with *Moringa* leaves.
- The comparative economics in terms of cost of production was higher for 10%, followed by 5% level replacement of *Moringa* leaves in comparison to control group.

ii) Following results were obtained from the study conducted on “Effect of Dietary Supplementation of Inulin on Performance of Barbari Goats Fed High and Low Concentrate Diet”

- The dietary supplementation of inulin in growing barbari goats resulted in increase in productive performance in terms of average daily body weight gain, feed conversion ratio and feed utilization efficiency in barbari goats fed with high and low concentrate diet with supplementation of inulin.
- There was an overall improvement in body condition score and faecal score in inulin treated group.
- The supplementation of inulin had no adverse effect on biochemical parameters which included plasma glucose, plasma cholesterol, total protein, plasma albumin, plasma creatinine, blood urea nitrogen, alkaline phosphatase, SGPT, SGOT and total immunoglobulins. However, there was an overall increase in the concentration of total protein and globulin in inulin supplemented group fed with high concentrate diet.



**Goat Shed at ILFC II**



**High power purchase committee for animal purchase from Mathura**



**Selection of breeding bucks with superior genetic merit from progressive farmers in Mathura**



**Animals (Barbari goats) at goat farm ILFC II unit**



## **Five days farmer's training on commercial goat farming**

### **Recommendations:**

- Inulin supplementation either in high concentrate or low concentrate diet of growing goats is beneficial to improve productivity, immunity and general health of animals.

### **Publications:**

**Book:** अहमद फहीम, डी०के० सिंह, अमित कुमार, व्यवसायिक बकरी पालन, 114 pages: ISBN: 978-81-942288-9-9

### **Research papers:**

Effect of feeding Moringa oliefera leaves on growth performance of barbari goats. Indian J. of Animal Sc. (NAAS 6.2) (Under review)