

# **TECHNICAL PROGRAMME APPROVED FOR FARM/FIELD UNITS OF AICRP ON GOAT IMPROVEMENT DURING IX & X PLAN PERIOD.**

## **Germplasm centres:**

### **Objectives:**

- To estimate genetic variance of economic traits in goats.
- To estimate breeding value of males and females.
- In-situ/ex-situ conservation of elite germplasm and its effective utilization.
- To estimate production economics of goats under farm conditions.
- To validate farm based goat production technologies under field conditions.

## **Technical Programme:**

Each unit will maintain 200-300 breedable does and 10 bucks under semi-intensive system of management.

Selection of males and females will be made on the basis of 6 months body weight in small breeds (Black Bengal) and 9 months body weight in medium and large breeds.

Selected of females will also be done on the basis of age and weight at first kidding.

Important production data like body weight at different age group (3,6,9 and 12months), milk yield, kidding weight, age and weight at first kidding to be recorded.

Culling will be done on the basis of selection criteria adopted for selection of the does.

Feedlot studies will be conducted by the nutrition component worker for estimating FCE and carcass characteristics in 10 males upto 6, 9 & 12 months of age.

Disease pattern and control measures will be undertaken by the goat health component worker..

Selected superior sires will be maintained as the elite germplasm and 500 doses of semen of each elite buck will be stored in the Semen Bank by the reproduction component worker.

Superior sires will be distributed for improving the production of goats in the farmers' flocks. Semen of all the bucks will be tested for quality before use for breeding.

Selection differential for body weight to be estimated.

Economics of goat rearing will be analysed in collaboration with NCAP, Delhi.

## **Field based units:**

### **Objectives:**

1. To assess the production performance of goat breeds in farmer's flocks under village management system and improve the germplasm through selection.

2. To evaluate the socio-economic status of goat breeders and the economics of goat production in farmers flock.
3. To disseminate the pro-poor goat based technologies under field conditions and assessment of their impact on goat production.

### **Technical Programme:**

The performance recording on growth, milk yield, reproduction, health etc. will be done separately for each group and reporting will be made accordingly.

Each unit will maintain at least 4 Centres having at least 600 breedable does under the coverage.

Selection of males and females will be made on the basis of 6 months body weight in small breeds (Black Bengal) and 9 months body weight in medium and large breeds.

Multiple birth born kids will be preferred over single born kids in the selection of future bucks.

Semen Bank will be established by each Unit to store at least 1000 doses of semen of each elite buck available in the field area to promote ex-situ conservation of the breed and 500 semen doses to be sent to NBAGR, Karnal.

The socio-economic studies will be undertaken and viability of goat rearing will be worked out.

Strategic supplementary feeding schedule will be followed to improve the nutritional level of the goats.

Health coverage will be provided to all the goats in the project area in collaboration with State Animal Husbandry Department.

Marketing aspects of live goats and goat products viz. meat, milk, skin, hair and manure will be studied.

Efforts will be made to form goat breeder's societies, cooperative societies and to register the goat flocks in the breeding tract of the respective breeds.

## **TECHNICAL PROGRAMME FOR FARM/FIELD UNITS OF AICRP ON GOAT IMPROVEMENT DURING XI PLAN PERIOD**

### **Technical Programme:**

#### **Germplasm Centre:**

1. The unit will maintain 200 breedable does and 10 bucks under semi-intensive system of management.
2. The breedable does will be divided in to two groups.
  - a. Base flock (100 does)
  - b. Improver flock (100 does)
  - c. 3 - Selection of males will be made on the basis of an index combining 90 days milk yield of the dam and 9 months body weight of the male kids. Multiple born kids will be preferred over single born kids.
- 4- The selection of females will also be initiated on the basis of age and weight at first kidding and kidding interval.
3. The best rating (high index value) of 4-6 elite bucks will be used for breeding of the improver flock.
4. Superior male kids produced from improver flock will be used as future sires for the base flock.
5. Female progenies born out of improver flock will be utilized as replacement for base flock.
6. The recording of production data will be done for both the groups (base flock and Improver flock) simultaneously.
7. Culling will be done on the basis of selection criteria adopted for selection of the does. Poor performers will be culled.
8. Feedlot studies will be conducted by the nutrition component worker for estimating FCE and Carcass characteristics etc.
9. Feed & fodder availability in the farm and utilization pattern of feeds will also be studied.
10. Disease pattern and control measures will be undertaken by the goat health component worker.
11. Selected superior sires will be maintained as the elite germ plasm and 500 doses of semen of each elite buck will be stored in the Semen Bank by the Reproduction component worker.

12. Superior sires will be distributed for improving production of goats in the farmer's flocks. Semen of all the bucks will be tested for quality before use for breeding.
13. There will be continuous flow of germplasm from farmers flocks to the farm flock and vice versa.
14. Evaluation of sires will be made on the basis of progeny testing.
15. Economics of goat production will be worked out with the help of an economist.

## Field based Units

Progeny testing in the farmers flocks should be initiated by forming following flock groups.

**Base flock:** A group of does to which the bucks selected from our own registered breeders, shall be used in each generation.

**Tester flock:** A group of does, to which the progeny tested superior bucks will be allocated.

The performance recording on growth, milk yield, reproduction, health etc. will be done separately for each group and reporting will be made accordingly.

Each unit will maintain at least 4 Centres having at least 500 breedable does under the coverage.

The male kids will be selected on the basis of 60 - 90 days milk yield of respective dams. The selection of kids will be made on the basis of performance above two standard deviation from the population mean for body weights and 60 days milk yield.

Twin born kids will be preferred over single born kids in the selection of future bucks.

Semen Bank will be established by each Unit to store at least 1000 doses of semen of each elite buck available in the field area to promote Ex-situ conservation of the breed.

The socio-economic studies will be undertaken and viability of goat rearing will be worked out.

Prophylactic health coverage will be provided to all the goats in the Project area.

Marketing aspects of live goats and goat products viz. meat, milk, skin, hair and manure will be studied. 10. Efforts will be made to form goat breeder's societies, cooperative societies and to register the goat flocks in the breeding tract of the respective breeds.

## COORDINATING UNIT

The coordinating unit of the AICRP on goat improvement is located at Central Institute for Research on Goats, Makhdoom, Farah, Mathura. The Project is coordinated by the Director of the Institute. However, a principal scientist is nominated as Incharge P.C. Cell to support the Director in proper coordination of the administrative, technical and financial matters of the project. The location of different units has been depicted in Table –1.

**TABLE –1: Ongoing Projects under AICRP on Goat Improvement During XI Five Year Plan**

Sl. No.	Name of the Unit	Location	Utility
<b>From X Plan :</b>			
1.	Jamunapari Farm Unit	CIRG, Makhdoom	Milk & Meat
2.	Barbari Farm Unit	CIRG, Makhdoom	Milk & Meat
3.	Sirohi Farm Unit	CSWRI, Avikanagar	Milk & Meat
4.	Marwari Field Unit	R.A.U. Bikaner	Meat
5.	Black Bengal Field Unit	WBUVS & F, Kolkata	Meat
6.	Ganjam Field Unit	OUA & T, Bhubaneshwar	Meat
7.	Sangamneri Field Unit	MPKV, Rahuri	Meat & Milk
8.	Surti Field Unit	N.A.U. Navsari	Milk & Meat
9.	Malabari Field Unit	K.A.U. Trichur	Meat & Milk
10.	Sirohi Field Unit	M.P.U.A & T., Udaipur	Meat & Milk
<b>New Units Proposed during XI Plan :</b>			
1.	Black Bengal Field Unit	BAU, Ranchi	Meat
2.	Assam Hill Field Unit	A.A.U. Guwahati	Meat
3.	Gaddi Field Unit	HPKC, Palampur (HP)	Meat & Fibre
4.	Osmanabadi Unit	NARI, Phaltan (MH)	Meat & Milk
5.	Changthangi Unit*	DRDO, Leh (J&K)	Pashmina & Meat

**BUDGET ESTIMATE OF AICRP ON GOAT IMPROVEMENT FOR  
Xlth PLAN (2007-2012)**

**(ICAR share)**

**(Rs. In lakh)**

<b>S. No.</b>	<b>Name of the Unit</b>	<b>2007 -08</b>	<b>2008 -09</b>	<b>2009 -10</b>	<b>2010 -11</b>	<b>2011 -12</b>	<b>Total</b>
1.	P.C. Cell, CIRG, Makhdoom	3.00	2.50	2.60	1.20	1.20	<b>10.50</b>
2.	Jamunapari Unit, CIRG, Makhdoom	16.00	10.50	7.50	4.50	4.60	<b>43.10</b>
3.	Barbari Unit, CIRG, Makhdoom	15.75	10.50	7.50	10.75	4.15	<b>48.65</b>
4.	Sirohi Unit, CSWRI, Avikanagar	2.50	10.50	3.40	2.40	3.15	<b>21.95</b>
5.	Jamunapari F. Unit, Chakarnagar	2.00	0	0	0	0	<b>2.00</b>
6.	Marwari F.Unit, RAU, Bikaner	15.90	18.23	33.60	33.75	32.08	<b>133.56</b>
7.	Black Bengal F. Unit, WBUV&FS, Kolkata	15.90	18.23	33.60	33.75	32.08	<b>133.56</b>
8.	Ganjam F.Unit, OUA&T, Bhubaneshwar	15.90	18.23	33.60	33.75	32.08	<b>133.56</b>
9.	Sangamneri F.Unit, MPKV, Rahuri	15.90	18.23	33.60	33.75	32.08	<b>133.56</b>
10.	Surti F.Unit, NAU, Navsari	15.90	18.23	33.60	33.75	32.08	<b>133.56</b>
11.	Malabari F. Unit, KAU, Trichur	15.97	18.30	33.68	33.82	31.80	<b>133.57</b>
12.	Sirohi F.Unit, MPUA&T, Udaipur	15.98	18.30	33.68	33.82	31.80	<b>133.58</b>
	<b>New Units</b>						
1.	Osmanabadi Unit, NARI, Phalton (MH)	--	--	21.00	16.50	18.30	<b>55.80</b>
2.	Changthangi unit, DRDO Leh	--	--	21.25	16.50	18.30	<b>56.05</b>
3.	Black Bengal F. Unit, BAU, Ranchi	--	--	33.00	27.00	28.50	<b>88.50</b>
4.	Assam Hill Unit, AAU, Guwahati	--	--	33.00	27.00	28.50	<b>88.50</b>
5.	Gaddi Unit, HPKKV, Palampur (HP)	--	--	33.00	27.00	28.50	<b>88.50</b>
	<b>Total</b>	<b>150.70</b>	<b>161.75</b>	<b>397.61</b>	<b>369.24</b>	<b>359.20</b>	<b>1438.50</b>

