

NETWORK PROJECT ON SHEEP IMPROVEMENT

The Network Project on Sheep Improvement (NWPSI) came into existence on 01.04.1990, when all the centers of All India Coordinated Research Project on Sheep Breeding (AICRP-SB) merged to NWPSI. In NWPSI emphasis has been given on evaluation and improvement of indigenous sheep genetic resources by selective breeding. Under NWPSI indigenous sheep breeds are improved through selection and inter-se mating primarily for mutton and also for wool production.

1. Coordination Cell: PC Cell, NWPSI, ICAR-CSWRI, Avikanagar

2. Cooperating Units:

Sr. No	Location	Status	Breed	Objective
A. Farm based cooperating units				
1	ARC (ICAR-CSWRI), Bikaner	ICAR	Marwari sheep	Carpet Wool
2	ICAR-CIRG, Makhdoom	ICAR	Muzaffarnagri sheep	Dual purpose
3	MPKV, Rahuri	SAU	Deccani sheep	Dual purpose
4	SVVU, Palamner	SAU	Nellore sheep	Mutton
B. Field based cooperating units				
1	TANUVAS, Kattupakkam	SAU	Madras Red sheep	Mutton
2	ARC (ICAR-CSWRI), Bikaner	ICAR	Magra sheep	Carpet wool

Presently, there are six ongoing cooperating centers of NWPSI in the country with its coordinating unit at PC Cell, ICAR-Central Sheep and Wool Research Institute, Avikanagar, Tonk (Rajasthan). Four of these units are farm-based units with annual target of 50 rams sale/distribution while two of them are field-based units with annual target of 100 rams sale/distribution to cover maximum ewes in the field.

Project Team

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Cooperating Sheep Units			
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The objectives of NWPSI is Genetic improvement of indigenous sheep breeds by selection. The technical programme aims at improvement of indigenous sheep breeds under farm conditions wherein the ram lambs are first ranked using selection index and selected rams are used for mating by the age of 18 months. Subsequently these rams are again evaluated based on their progeny performance and best 2-3 rams are selected and used for further breeding. Breeding rams of high breeding value are produced from farm based unit every year for germplasm distribution. The Sheep Improvement Programmes will continue and efforts will be made to bring overall improvement in sheep productivity through distribution of superior germplasm and adoption of improved scientific management practices. Each field-based unit has four centres including a ram-rearing centre, covering a sheep population of about 1500 breedable ewes per centre. The superior male lambs are selected from the farmers' flocks on the basis of first six monthly greasy fleece yield and six month body weight in Magra sheep and on six month body weight basis in Madras Red sheep. Male lambs are initially identified at 3 month of age and are finally selected after first shearing/market weight.

Farm units (as on 31.03.2018)

Breed	Adult Male	Adult Female	Total strength
Marwari	57	382	439
Muzaffarnagri	50	270	320
Deccani	63	334	397
Nellore	59	309	368
Magra	86	311	397
Total	315	1606	1921

Field units: Flock coverage (as on 31.03.2018)

Unit	Sheep breeders registered	Total sheep registered	Breedable ewes
Madras Red	112	8895	5159
Magra	53	6451	3250
Total	165	15346	8409

Sale of adult rams and ewes for genetic improvement During the year (2017-18) a total of 24 rams and 20 ewes of Marwari, 51 rams and 137 ewes of Muzaffarnagri, 54 rams and 14 ewes of Deccani, 79 rams of Nellore, 125 rams of Madras Red, 71 rams of Magra sheep were sold and distributed for genetic improvement of farmers flock during the year (2017-18). A total of 404 rams, 49 hogget male, 20 hogget female and 171 adult females (ewes) were sold or distributed for genetic improvement program.

Activities in the field units: During the year (2017-18) a total of 8895 Madras red sheep having 5159 breedable ewes of 112 sheep farmers and 6451 Magra sheep with 3250 breedable ewes of 53 sheep farmers were covered under field units for performance recording and improvement. Identification of animals in the field was strengthened for accuracy of data recording.

Performance of Different Breed of Sheep (2017-18)

Breed/ Particulars	Body weight at different months (Kg)				Lambing % (Ewe Available)	Annual GFY (gm)
	Birth	3M	6M	12M		
Marwari (Farm flock)	3.20±0.03 (272)	17.43±0.18 (263)	24.80±0.26 (192)	35.27±0.53 (57)	88.15	1375.35±11.57 (342)
Muzaffarnagari (Farm flock)	3.52±0.04 (233)	16.28±0.26 (212)	25.54±0.49 (140)	36.59±0.53 (79)	91.5	1141.76±19.83 (219)

Deccani (Farm flock)	3.20±0.02 (249)	13.67±0.08 (209)	23.40±0.17 (95)	28.23±0.27 (64)	90.28	956.40±6.93 (325)
Nellore (Farm flock)	3.25±0.02 (412)	14.97±0.19 (387)	23.97±0.20 (278)	28.37±0.21 (135)	85.94	NA
Magra (Farm flock)	3.09±0.03 (207)	16.22±0.19 (201)	23.66±0.25 (171)	31.55±0.41 (72)	85.00	1886.03±13.30 (329)
Magra (Field flock)	2.96±0.01 (1452)	15.65±0.04 (1255)	21.92±0.06 (1004)	28.84±0.05 (846)	79.23	565.91±2.91 (817)
Madras Red (Field flock)	2.65±0.89 (238)	10.54±0.129 (785)	15.95±0.214 (793)	21.54±0.367 (383)	87.26	NA



Ram Distribution by Dr. Arun Kumar, Director, CSWRI at Deccani Unit



Magra Ram distribution by Dr. J.K. Jena, DDG (AS) at ARC Bikaner



Nellore Sheep Flock at SVVU Palamner



Deccani (Sangamneri strain) flock at MPKV Rahuri



Marwari
Arid Region Campus (ICAR-CSWRI), Bikaner



Muzaffarnagri
ICAR- CIRG, Makhdoom



Deccani
MPKV, Rahuri



Nellore
SVVU, LRS Palamner



Madras Red
PGRIAS, TANUVAS, Kattupakkam



Magra
**Arid Region Campus (ICAR-CSWRI),
Bikaner**