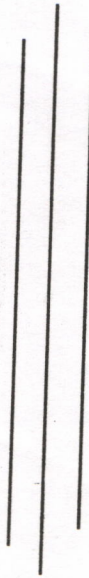सत्यमेव जयते

Government of Rajasthan

Sheep
Breeding
Policy

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FORWORD

Animal Husbandry in Rajasthan has a great importance. It contributes more than 10% to the state's gross domestic product. As per Livestock Census, 2007 there are 112.83 lac sheep population in the state. Some of the nationally recognized breeds of sheep viz. Marwari, Jaiselmeri, Magra, Poogal, Nali, Chokla, Malpura & Sonadi have their home tract in Rajasthan.

Earlier, the main aim of sheep rearing was wool production, but with the change of time remarkable revenue is being generated in the state through meat production also. Approximately 155 lac Kg. wool is being produced every year in the state, which is highest in the country. Yet there is still a wide scope for increasing productivity of sheep. Increased production can only be achieved through scientific breeding and a policy suitable to local climatic conditions and need of the local farmers. The main aim of sheep breeding policy is to improve the productivity of native breed through selective breeding and up gradation; the native breed will be conserved and propagated.

In view of challenges faced by animal husbandry sector in the present time and technological advancement, new sheep breeding policy has been prepared for faster development of the sector. The breeding policy is prepared after considering comments received from field officers and other stakeholders. Crossbreeding of native breeds with exotic stock has been proposed to be completely stopped.

It is expected that the directives laid down in sheep breeding policy would help to further improve the sheep husbandry of the state and socioeconomic status of the farmers through increased productivity of their animals.

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SHEEP BREEDING POLICY

1. INTRODUCTION

Rajasthan has 112.83 lacs Sheep as per 2007 livestock census. They play an important role in the state economy. A vast majority of the poor and back ward section of the society is dependent on the sheep rearing for livelihood. The state earns annually remarkable revenue from wool, mutton and other products. Cost effective economy and less expensive housing make the sheep economically viable proposition for the poor people. The size of flock varies from 30 to 50, to as high as 400 sheep. The flocks from the arid region migrate to the adjoining states during summer months. It is a regular practice in western districts of Rajasthan. The marginal farmers and landless laborers are the poorest in rural society which mostly rear the sheep and goat. A majority of farmers rearing sheep and goat are maintaining them at subsistence level.

About ten lac households in the state are engaged in rearing of small ruminants (sheep, goats and rabbits) and other allied activities. The main reasons for low productivity are poor exploitation of genetic potential of indigenous animals, low absorption of available technology, inadequate resource of feed and fodder, insufficient health cover, inadequate marketing & credit support etc.

2. Major Challenges

- Development of synthetic fiber in manufacturing of apparel and carpet wool.

- Shrinkage of pastureland.

- Lack of suitable marketing infrastructure and industry for utilization of wool and meat in the state.

- Quality of Sheep.

3. Aim

The policy consciously aims at fostering the development of Sheep by increasing their production in terms of meat & wool in the state to improve upon the economic status of the rural livestock owners.

4. Objectives

Through the revision of such a breeding policy for sheep, following objectives are being proposed:-

- Genetic improvement for production traits of indigenous breeds of sheep through selective breeding and upgrading.

- Rearing and distribution of improved rams.

- Distribution of rams after testing them for important sexually transmitted diseases.

- Conservation of important indigenous breeds.

- Castration and culling of lower body weight and less productive sheep and their subsequent replacement by the elite sheep in a phased manner.

5. Livestock Population

Rajasthan has 112.83 lacs Sheep as per 2007 livestock census. There are eight well defined breeds of sheep in the state viz., Marwari, Jaisalmeri, Magra, Pugal, Nali, Chokla, Malpura and Sonadi. Kheri, a new type, has been developed in the migratory flocks of Rajasthan through cross breeding of local sheep with Marwari sheep on its migratory route.

6. Native Sheep Breeds, Home Tract and their Average Production :

Breed	Home Tract (Districts)	Av. Wool Prod'n. [Kg./ Yr.]	Type of Wool
Chokla	Sikar, Churu, Jhunjhunu , Nagur (Part)	1.36– 2.27	Fine & Medium
Magra	Bikaner,Jaisalmer (part)	1.3 – 2.2	Coarse & Medium
Nali	Sriganganagar, Hanumangarh	1.3 – 2.7	Coarse & Medium
Pugal	Bikaner (Part)	1.36–2.26	Coarse & Medium
Marwari	Jodhpur, Pali, Nagaur	0.9 – 1.8	Coarse & Medium
Malpura	Tonk, Jaipur	0.6 – 1.3	Coarse & Medium
Sonadi	Udaipur	0.9 – 1.36	Coarse & Medium
Jaisalmeri	Jaisalmer, Barmer	1.8 – 3.1	Coarse & Medium

7. · Past Experience:-

Improvement of existing breeds was attempted through cross breeding with exotic sheep of Merino, Rambouillet and Corridale breed, thereby Chokla and Nali sheep in Jhunjhunu Srigaganagar, Dungarpur, Udaipur, Banswara, and Chittorgarh, have been converted into crossbreed population. It was proposed to first produce quarter breds, then 3/8-th and then half breds in stages so that farmers may gain the experience of managing sheep with increasing level of exotic inheritance. Private and progressive sheep breeders were also supplied with Rambouillet sheep for production of exotic rams. Selective breeding of Marwari, Jaisalmeri and Magra was taken up in desert districts. Selected rams were purchased by department at remunerative

price from the breeders and were redistributed to the breeders on a subsidized rate.

Cross breeding programme was taken up in native breeds viz. Chokla, Nali, Malpura, Sonadi, with Merino, Rambouillet and Corridale breed.

At sheep breeding farm Fatehpur following breeding plan was followed:-

EXOTIC RAM	X	EXOTIC EWE
75% CROSS BREED RAM	X	75% CROSS BREED EWE
50% CROSS BREED RAM	X	50% CROSS BREED EWE

Cross breeding was aimed to improve the wool production and fineness of the wool, although wool production & fineness was improved to some extent but its negative impact has also been observed as cross breeding has not given encouraging results due to low lambing, low disease resistance, more climate sensitivity, high mortality rate, and lower value of raw wool. The other reasons are crossbred animals prefer stall feeding ,where as in the state of Rajasthan open grazing system is prevalent. It leads to less intake of feed, resulting in less body weight gain. The crossbred sheep lags behind the flock. In foreign countries the shearing of wool is done once a year, whereas in Rajasthan shearing is done twice or thrice a year. The wool sheared in this way fetches less price with no market for this type of wool. The farmers are not ready to rear the exotic and cross bred animals. Native breed has been affected due to low plane of nutrition and indiscriminate breeding. Only 10 to 15% of the total population could be covered under cross breeding programme with discouraging results. Therefore it is realized that production be increased through selective breeding.

8. Breeding Policy for Sheep

- In indigenous breeds selective breeding and up gradation will be adopted.

- Crossbreeding of native breeds with exotic blood will be totally stopped.

- Crossbreeding with native breeds will be adopted in specific situation like evolving prolific sheep.

- In the available crossbred females breeding will be allowed with the crossbred males. Wherever crossbreeding will be adopted, the blood level of exotic blood should be maintained between 50-62.5 % and not more than this limit in any case keeping in view the climatic condition of the state.

- Nondescript breeds will be upgraded.

- Nondescript males will be castrated to avoid indiscriminate breeding.

- The main focus will be to increase the productivity per animal in terms of body weight for meat and quantity of wool & quality.

- All possible efforts will be made to avoid inbreeding in the sheep flocks.

- No sire will be used for more then 2 years in the same flock.

- To preserve and propagate well defined indigenous breeds in home tracts rams will be distributed in their home tract only.

- In the migratory flocks the male of corresponding indigenous breed will be used for selective breeding and up gradation.

9.   Selection of Rams

The rams will be selected on the basis of phenotypic breed characters along with body weight minimum 25 Kg at the age of 9 to 12 months and quality of wool as per breed.

10.   Breed wise proposed breeding scheme for Sheep

* **Marwari, Jaisalmeri, and Pugal:** Breeds may be improved through selective breeding for higher body weight & wool production in their breeding tracts.

* **Magra:** Breed will be developed in its home tract through selective breeding for traits like body weight, Wool resilience & its luster.

* **Chokla & Nali:** These breeds will be conserved and further improved for traits likely body weight and wool yield through selective breeding.

* **Sonadi:** Since Sonadi breed is having coarse wool, emphasis will be given to upgrade it through selective breeding in its home tract to improve its body weight. In addition for resourceful farmer's introduction of Garole breed for evolving prolific sheep following the model adopted by the C.S.W.R.I. will be done.

* **Malpura:** It is a very popular mutton type breed. It will be further improved through selective breeding for body weight. C.S.W.R.I. has evolved prolific sheep by introducing Garole blood in Malpura sheep. Efforts will be made to procure males of Garole-Malpura (75%) crosses. Subsequently the genotype will be multiplied at sheep breeding farm Fatehpur and units of prolific sheep will be distributed to the sheep breeders.

DISTRICTWISE SHEEP BREEDING POLICY

JAIPUR RANGE

S.no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Jaipur	337157	Malpura	Malpura	Both
2	Sikar	319581	Chokla, Nali	Chokla, Nali	Both
3	Jhunjhunu	190108	Chokla, Nali	Chokla, Nali	Both
4	Alwar	100299	Non descript, Malpura	Malpura	Both
5	Dausa	61468	Non descript, Malpura	Malpura	Both

BIKANER RANGE

S.no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Bikaner	707699	Magra, Pugal	Magra, Pugal	Both
2	Sriganganagar	336297	Nali	Nali	Both
3	Hanumangarh	284446	Nali	Nali	Both
4	Churu	452145	Chokla, Nali	Chokla, Nali	Both

JODHPUR RANGE

S.no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Jodhpur	1047502	Marwari	Marwari	Both
2	Jaisalmer	1291243	Magra, Jaisalmeri	Magra, Jaisalmeri	Both
3	Barmer	1370969	Jaisalmeri	Jaisalmeri	Both
4	Jalore	630531	Marwari	Marwari	Both
5	Sirohi	251707	Marwari	Marwari	Both
6	Pali	924305	Marwari	Marwari	Both

UDAIPUR RANGE

S. no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Udaipur	224996	Sonadi	Sonadi	Both
2	Rajsamand	128470	Sonadi	Sonadi	Both
3	Banswara	13382	Sonadi	Sonadi	Both
4	Dungarpur	108476	Sonadi	Sonadi	Both
5	Chittorgarh	79951	Sonadi, Non descript	Sonadi	Both
6	Pratapgarh	25555	Sonadi, Non descript	Sonadi	Both

AJMER RANGE

S.no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Ajmer	501875	Non descript, Malpura, Marwari	Marwari , Malpura	Both
2	Nagaur	792055	Marwari, Chokla	Marwari, Chokla	Both
3	Bhilwara	537839	Sonadi, Marwari	Sonadi, Marwari	Both
4	Tonk	256154	Malpura	Malpura	Both

KOTA RANGE

S. no.	District	Sheep population	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Kota	21891	Non descript, Marwari	Marwari	Both
2	Baran	13417	Non descript, Marwari	Marwari	Both
3	Bundi	59026	Non descript, Malpura	Malpura	Both
4	Jhalawar	15256	Non descript, Marwari	Marwari	Both

BHARATPUR RANGE

S. no.	District	Sheep popu-lation	Available breed	Proposed breed for breeding	Purpose for which to be reared (mutton, wool or both)
1	Bharatpur	83080	Non descript, Marwari	Marwari	Both
2	Dholpur	8354	Non descript, Marwari	Marwari	Both
3	Karauli	54909	Non descript, Marwari	Marwari	Both
4	Sawai Madhopur	79158	Non descript, Marwari, Malpura	Marwari, Malpura	Both

Note: Population shown in column number 3 is as per Livestock census, 2007.

11. Area of operation

- The various agencies involved in the breeding programme will work in their respective area of operation.

- Irrespective of operating agencies, the breeding policy and other norms prescribed herewith will be strictly applicable to all operators.

12. Records and Returns

- Proper records of distributed rams will be kept by the sheep breeding farm and at district head quarter.

- Regular follow up and monitoring programme will be carried out for scientific evaluation by all agencies engaged in breeding operation in the state.

- On the basis of the objectives achieved through execution of the above policy and experiences gained therein regarding limitations and constraints, the above breeding policy may be reviewed after five years of implementation or whenever required.

- Whenever the breed wise livestock census is made available, the above breeding policy will be reviewed, if required.

- The university and CSWRI experts will be consulted regularly to evaluate and advice on the implementation of the programme and suggest corrective measures.

- Progressive sheep rearers will be registered by the concerned veterinary institutions at panchayat level, record of which will be kept by the Deputy Director of the district. Department will provide technical support to those progressive sheep rearers.