



GOVERNMENT OF RAJASTHAN

**CATTLE & BUFFALO BREEDING
POLICY (Revised)**

2014-15

DEPARTMENT OF ANIMAL HUSBANDRY

RAJASTHAN, JAIPUR

FOREWORD

Animal Husbandry in Rajasthan is a major economic activity emerging as an important growth leverage of the rural economy. As a component of agricultural sector, its share in gross domestic product has been rising consistently. It forms an important livelihood activity for most farmers, supports agriculture in form of critical input, contributes to health and nutrition of the household, supplements incomes, offers employment opportunities and finally acts as a dependable "bank on hooves" in times of need. Distribution of livestock wealth is more egalitarian, compared to land, hence from equity and livelihood perspective it is an important component in poverty alleviation programmes.

The economic dimensions of livestock keeping have assumed increased significance in household behaviour due to gradual transition to market system. Over 70% of the human population in Rajasthan resides in the villages where livestock rearing is a multifarious activity, providing the much-intended insurance against prominently occurring scarcity conditions due to crop failure. The sector is highly gender sensitive and over 90 per cent of activities related to care and management of livestock are carried out by the women folk. In view of its suitability for combining with crop sub sector and sustainability as a household enterprise with the active involvement of women, it is emerging as a very popular supplementary avocation in the state.

Globalization has opened up considerable market opportunities. Rajasthan has promising market opportunities for export of cow's milk and its products in view of the preferences expressed in the developed countries for cow's milk. Trade in livestock products is expected to grow wherein cost advantage in dairy products may develop, but a lose out on quality grounds may occur, unless astute action in this regard brings about a sustained improvement.

In view of various concerns and apprehensions visualized in the Animal Husbandry sector, the Government has revised the Breeding Policy for Cattle and Buffalo in the State with an aim to bring about further improvement in this sector. This Breeding Policy has been revised after consulting all stakeholders, with an expectation that it would help conserve the cattle and buffalo wealth and improve the socio-economic status of farmers through increased productivity of their animals.

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Animal Husbandry Deptt.
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1. INTRODUCTION

Rajasthan is rich in agro-ecological diversity and has a wide range of unique livestock production systems that have evolved in different regions in tune with the naturally available resources and needs of the people. This diversity begins with the choice of species reared; breeds that have evolved, management and feeding practices, healthcare systems that are closely linked to the natural flora and fauna, and local marketing systems. Animal Husbandry in Rajasthan is a major economic activity contributing approximately 10.21% to the total GDP of the state.

This sector has also the highest potential for rural self-employment generation at the lowest possible investment per unit. Development of livestock sector therefore is critical pathway to rural prosperity. This fact in context to Rajasthan is well established where agricultural operations offer less promising prospects due to extreme geo-climatic conditions and uncertainty of rains. As such livestock operations have expressed their superiority over crop farming in terms of growth, stability, resource conservation and uplifting the socio-economic status of the inhabitants.

The overall growth trends further depict that farmers have a preference more for high milk yield rather than for draft. The situation very well signifies the increasing tilt of the livestock owners towards buffalo rearing on one hand while on the other hand warrants stringent exercise to be carried out for appropriate cattle conservation and growth measures.

2. CATTLE & BUFFALO POPULATION

Rajasthan has 133.24 lac cattle & 129.76 lac buffaloes (2012 livestock census). Some of the nationally recognized breeds of milch and draught cattle viz. Rathi, Tharparkar, Gir, Kankrej, Sahiwal, Nagauri, Malvi & Haryana have their home tracts in Rajasthan. This indicates that the cattle in the state are of better quality in comparison to those found in other parts of the country. However, the number of high yielding indigenous pure bred cattle is reducing and number of non-descript cattle is increasing. The productivity of non-descript cattle is very low and needs to be improved.

There are areas of concern that constrain realisation of full potential of this sector. Despite significant advances in livestock breeding, the population structure continues to be dominated by local/non-descript breeds. Another issue relates to the organisation of production system. In general the system of production is extensive in nature. Though technological dualism persists, the system of dairying in and around the urban areas is based on improved breeds and intensive technological input use, while the rural system of production is characterised by low input and low technology.

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3. OBJECTIVES

- i. Conservation & genetic improvement of defined indigenous livestock breeds through selective breeding, upgrading and replacement of non-descript stock through cross breeding.
- ii. Rearing and distribution of improved bulls and bull calves for breed improvement.
- iii. Expansion and strengthening of infrastructure to propagate the elite germ-plasm through modern reproductive technologies.
- iv. Castration of scrub bulls.

4. BREEDING POLICY

There exists a wide scope for increasing productivity of the cattle & buffalo in the state which can only be achieved through scientific breeding and a policy suitable to the geo-climatic conditions and need of the local farmers. The experiences of crossbreeding with exotic blood revealed that the extreme geo-climatic variation in the state was not conducive to such cross breeding and desired results were not obtained. Hence focus now broadly warrants on conserving and improving the indigenous breeds by selective breeding and up gradation and restricting cross breeding with exotic blood on guide-lines as follows-

- 4.1 The policy envisages upgrading of indigenous germ plasm on priority through selective breeding within indigenous breeds, whereas non-descript cattle and buffalo will be up graded with high yielding indigenous native breeds.
- 4.2 Selective breeding of indigenous breeds of Gir, Haryana, Malvi, Rathi, Kankrej, Nagauri, Sahiwal and Tharparkar cattle will be carried out in native tracts where these animals are found in their true forms. However, special permission may be granted to animal breeders for maintaining specific indigenous breed herds not native to a particular region, on condition of compulsory castration of all males in their herd which are not intended to be used for selective breeding.
- 4.3 In case of cross breeding with exotic blood in non-descript and crossbred cattle the blood level of exotic breed shall be maintained between 50 to 62.5 %. This level can be allowed to exceed (including use of sexed semen) only after ensuring adequate pre-requisites viz. availability of adequate green fodder water, good management practices etc.
- 4.4 Agencies or animal breeders desirous of either importing 100% exotic semen/embryos/ animals for their own cattle herds or exporting the same may be granted NOC to do so on condition that they would ensure that the breeding policy of the State is not violated in any manner. Nevertheless, guidelines issued by GOI for restricted import/export from time to time will also have to be followed in letter and spirit. by M.A.P.D.
- 4.5 Under the breed improvement programme scrub bulls & calves which are not considered suitable for breeding purpose are required to be castrated.

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- 4.6 In the districts of Jaipur, Jodhpur, Bikaner, Kota, Ajmer and Bharatpur division, Murrah breed shall be the breed of choice for buffalo breeding. In the districts of southern belt of the Udaipur division, breeding by Surti breed shall be the breed of choice for buffalo breeding. Use of Murrah bull / semen in this part of the division shall be done only on specific demand of the livestock owner / animal breeder.
- 4.7 Non-descript buffaloes shall be improved/upgraded by using Murrah / Surti bulls or it's semen specified for that area.

To conserve and propagate well defined indigenous breeds in home tracts as per breeding policy of the state, it would be mandatory to obtain recommendation from the local Veterinary Officer / Sr. V.O. / Deputy Director (LSD) through Joint Director AH of the district, for permitting distribution of a bull for natural service. The recommendation shall be extended only after satisfaction that the bull / bulls under consideration for distribution will not adversely affect the breed of the area in which they are being introduced.

5. SELECTION OF BREEDING SIRES

- 5.1 Bulls of high production potential shall be identified/selected on the basis of phenotypic characters and their dams' yield, till progeny tested / pedigree selected bulls are available.
- 5.2 The minimum production standards for different breeds to be used for breeding purpose by way of artificial insemination / natural service as follows :-

Minimum Production Standards for Indigenous Cattle

BREEDS	Minimum Dam's Yield of Bulls to be used for SEMEN PRODUCTION (Kg./305 days)		Minimum Dam's Yield of Bulls to be used for NATURAL SERVICE (Kg./305 days)
	Best	1 st Lactation	
GIR	3000	2400	2400
KANKREJ	2500	2000	2000
NAGAURI	1000	900	900
THARPARKAR	2500	2000	2000
SAHIWAL	3000	2400	2400
HARYANA	2000	1600	1600
MALVI	1200	1000	1000
RATHI	2500	2000	2000

Minimum Production Standards for Exotic Breeds of Cattle

BREEDS		Minimum Dam's Yield of Bulls to be used for SEMEN PRODUCTION (Kg./305 days)		Minimum Dam's Yield of Bulls to be used for NATURAL SERVICE (Kg./305 days)
		Best	1 st Lactation	
JERSEY	100%	3750	3000	3000
	50%	3500	2800	2800
HOLSTEIN	100%	5600	4500	4500
	50%	5000	4000	4000

Minimum Production Standards for Buffalo

BREEDS	Minimum Dam's Yield of Bulls to be used for SEMEN PRODUCTION (Kg./305 days)		Minimum Dam's Yield of Bulls to be used for NATURAL SERVICE (Kg./305 days)
	Best	1 st Lactation	
SURTI	2000	1600	1600
MURRAH	3000	2400	2400

** All bulls to be used for semen production shall be required to be free from sexually transmissible diseases (STD).

6. FROZEN SEMEN

Frozen semen would be procured from Semen production stations of A and/or B category, recognized by CMU of GOI.

7. AREA OF OPERATION

7.1 The various agencies involved in the breeding programme will work in their respective area of operation and it would be mandatory for all agencies before starting operations in the State to obtain an NOC for the purpose from the State Department of Animal Husbandry.

7.2 Any agency, whether in the public or private sector, shall be required to seek approval from the State Department of Animal Husbandry before permitting any NGO / agency to operate AI centers through private AI workers. They shall also ensure that such private AI workers do not violate the provisions of the Indian Veterinary Council Act.

7.3 The breeding policy and other norms prescribed herein will be uniformly applicable to all government and private operators involved in breed improvement activities without any discrimination whatsoever.

8. **RECORD MAINTENANCE AND MONITORING**

- 8.1 Proper records of the breeding activities will be maintained.
- 8.2 Regular follows up and monitoring will be carried out by all agencies engaged in breeding operation in the State.
- 8.3 For uniform monitoring and evaluation all operating institutions will report their progress periodically to their immediate supervisors, who in turn will submit a compiled progress report to the Director of Animal Husbandry Department and CEO, RLDB.
- 8.4 On the basis of the objectives achieved through the execution of the above policy and experiences gained regarding limitations and constraints, the above breeding policy may be reviewed every ten years or earlier if required.
- 8.5 The technical experts will be consulted regularly to evaluate and advise regarding efficient implementation of the programs.

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9. Region wise policy for breeding Cows

S. No.	Name of District	Breeding Policy	Indigenous Breeds proposed for breeding	Exotic Breeds/ Crossbred propagation on demand
JAIPUR DIVISION				
1	JAIPUR	SB/UG/CB	Haryana / Gir /Tharparkar	Exotic / Crossbred
2	SIKAR	SB/UG/CB	Haryana / Gir /Tharparkar	Exotic / Crossbred
3	ALWAR	SB/UG/CB	Haryana / Gir / <i>Tharparkar</i>	Exotic / Crossbred
4	DAUSA	SB/UG/CB	Haryana / Gir / <i>Tharparkar</i>	Exotic / Crossbred
5	JHUNJHUNU	SB/UG/CB	Haryana / Gir / <i>Tharparkar</i>	Exotic / Crossbred
AJMER DIVISION				
6	AJMER	SB/UG/CB	Gir	Exotic / Crossbred
7	BHILWARA	SB/UG/CB	Gir	Exotic / Crossbred
8	TONK	SB/UG/CB	Gir	Exotic / Crossbred
9	NAGOUR	SB/UG/CB	Nagauri/ Tharparkar	Exotic / Crossbred
JODHPUR DIVISION				
10	JODHPUR	SB/UG/CB	Tharparkar	Exotic/Crossbred
11	PALI	SB/UG/CB	Kankrej /Gir / Tharparkar	Exotic / Crossbred
12	SIROHI	SB/UG/CB	Kankrej	Exotic / Crossbred
13	JAISALMER	SB/UG/CB	Tharparkar	Exotic / Crossbred
14	JALORE	SB/UG/CB	Kankrej	Exotic / Crossbred
15	BARMER	SB/UG/CB	Kankrej / Tharparkar	Exotic / Crossbred
UDAIPUR DIVISION				
16	UDAIPUR	SB/UG/CB	Gir	Exotic / Crossbred
17	CHITTORGARH	SB/UG/CB	Gir	Exotic / Crossbred
18	DUNGARPUR	SB/UG/CB	Gir	Exotic / Crossbred
19	BANSWARA	SB/UG/CB	Gir	Exotic / Crossbred
20	RAJSAMAND	SB/UG/CB	Gir	Exotic / Crossbred
21	PRATAPGARH	SB/UG/CB	Gir	Exotic / Crossbred
BIKANER DIVISION				
22	BIKANER	SB/UG/CB	Rathi / Tharparkar / <i>Sahiwal</i>	Exotic / Crossbred
23	CHURU	SB/UG/CB	Rathi / Tharparkar	Exotic / Crossbred
24	GANGANAGAR	SB/UG/CB	Rathi / Sahiwal / Tharparkar	Exotic / Crossbred
25	HANUMANGARH	SB/UG/CB	Rathi / Tharparkar / Sahiwal	Exotic / Crossbred

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KOTA DIVISION				
26	KOTA	SB/UG/CB	Gir	Exotic / Crossbred
27	BUNDI	SB/UG/CB	Gir / Malvi	Exotic / Crossbred
28	JHALAWAR	SB/UG/CB	Malvi / Gir	Exotic / Crossbred
29	BARAN	SB/UG/CB	Malvi / Gir	Exotic / Crossbred
BHARATPUR DIVISION				
30	BHARATPUR	SB/UG/CB	Haryana / Gir	Exotic / Crossbred
31	KAURALI	SB/UG/CB	Haryana / Gir	Exotic / Crossbred
32	SAWAIMADHOPUR	SB/UG/CB	Haryana / Gir	Exotic / Crossbred
33	DHOLPUR	SB/UG/CB	Haryana / Gir	Exotic / Crossbred

10. Region wise policy for breeding Buffaloes

S. No.	Name of District	Breeding Policy	Breeds proposed for propagation
JAIPUR DIVISION			
1	JAIPUR	SB/UG	Murrah
2	ALWAR	SB/UG	Murrah
3	DAUSA	SB/UG	Murrah
4	SIKAR	SB/UG	Murrah
5	JHUNJHUNU	SB/UG	Murrah
AJMER DIVISION			
6	AJMER	SB/UG	Murrah
7	BHILWARA	SB/UG	Murrah
8	TONK	SB/UG	Murrah
9	NAGOUR	SB/UG	Murrah
JODHPUR DIVISION			
10	JODHPUR	SB/UG	Murrah
11	PALI	SB/UG	Murrah
12	SIROHI	SB/UG	Murrah
13	JAISALMER	SB/UG	Murrah
14	JALORE	SB/UG	Murrah
15	BARMER	SB/UG	Murrah

UDAIPUR DIVISION			
16	UDAIPUR	SB/UG	Surti / Murrah
17	CHITTORGARH	SB/UG	Surti / Murrah
18	DUNGARPUR	SB/UG	Surti / Murrah
19	BANSWARA	SB/UG	Surti / Murrah
20	RAJSAMAND	SB/UG	Surti / Murrah
21	PRATAPGARH	SB/UG	Surti / Murrah
BIKANER DIVISION			
22	BIKANER	SB/UG	Murrah
23	CHURU	SB/UG	Murrah
24	GANGANAGAR	SB/UG	Murrah
25	HANUMANGARH	SB/UG	Murrah
KOTA DIVISION			
26	KOTA	SB/UG	Murrah
27	BUNDI	SB/UG	Murrah
28	JHALAWAR	SB/UG	Murrah
29	BARAN	SB/UG	Murrah
BHARATPUR DIVISION			
30	BHARATPUR	SB/UG	Murrah
31	KAUROLI	SB/UG	Murrah
32	SAWAIMADHOPUR	SB/UG	Murrah
33	DHOLPUR	SB/UG	Murrah

