

PUNJAB BREEDING POLICY 2012

[Extract from Punjab Govt. Gaz., dated the 27th July, 2012]

GOVERNMENT OF PUNJAB
ANIMAL HUSBANDRY, FISHERIES & DAIRY DEVELOPMENT
(Animal Husbandry-2 Branch)

NOTIFICATION

The 4th July, 2012

No. 1/35/2012-AH-7/4835-The Governor of Punjab is pleased to notify the Livestock Breeding Policy to promote breeding and development of livestock especially in Cattle and Buffaloes in the State as under. This policy will be subject to revision after 10 years or earlier as deemed necessary by the Department of Animal Husbandry, Fisheries and Dairy Development, Government of Punjab:-

Livestock Breeding Policy

1.0 Objectives of the Breeding Policy:

- 1.1 To undertake systematic improvement of dairy cattle and buffaloes.
- 1.2 To undertake systematic bull production and evaluation program so as to improve the productivity of dairy cows and buffaloes .
- 1.3 To regulate the use of bulls/semens to improve productivity and to check transmission of diseases.
- 1.4 To motivate the farmers to rear high yielding animals and participate in breed improvement program.
- 1.5 Conservation and improvement of Nili Ravi buffalo and Sahiwal cattle breeds.
- 1.6 To develop regulation under The Punjab Livestock Improvement Act, 1953.

2.0 Cattle Breeding

- 2.1 Introduction: The cattle population in the state has consistently declined during the last 20 years and was recorded as 17.60 lac which include 10.31 breedable populations in 2007. The state followed the crossbreeding programme very extensively to improve the productivity of cows as a result of which more than 80% indigenous cows have been replaced by crossbreds, which range from 64.15% in 1990 to 79.3% in 2007. The daily milk production of lactating cows increased from 7.09 kg in 1990 to 10.36 kg in 2009. The average lactation milk yield of crossbred cows is 2819 kg in Punjab as compared to 1390 kg in India. Keeping in view the high milk production and better returns many farmers have established large dairy farms with high yielding crossbred cows, modern dairy sheds, mechanized milking/fodder harvesting. The state is not only providing large quantity of milk to the national grid but is also the major source of high yielding crossbred cows. The state has the potential to be the major source of germplasm of Holstein Friesian, Jersey crossbred, sahiwal cattle and Murrah/Nili Ravi buffaloes in the form of semen and bulls to other states.
- 2.2 The local/crossbred cows will be mated with Holstein Friesian bulls to produce crossbreds upto 75 % exotic inheritance. Crossbred bulls with 75 % exotic inheritance will be produced from the elite crossbred cows and put to progeny testing. Progeny tested Crossbred bulls will be extensively used to stabilize and maintain the level of 75 % exotic inheritance in 'crossbreds.
- 2.3 The progressive dairy farmers who have established high milk producing crossbred herds with exotic level of more than 75 % and are adopting the high input technologies of dairy management

and disease control can be allowed to use exotic bulls to have cows with high level more than 75% of exotic inheritance. Such farmers will be required to follow regular herd testing for specified diseases, herd registration and performance recording and will be the major source of bull calves.

- 2.4 Institutional farms may produce pure bred exotic for bull production.
- 2.5 The cows in the sub mountainous/Kandi and region having limited fodder resources will be improved by using Jersey.
- 2.6 The Sahiwal cows/bulls available with different institutions/farmers will be identified and registered in a Breed Book. Sahiwal cows will be mated with the best available semen of Sahiwal bulls and the male calves from the elite cows will be procured and used in the progeny testing programme of Sahiwal breed.

3.0 Buffalo Breeding

- 3.1 **Introduction:** The buffalo is the premier dairy animal of the state and accounts for more than 65% of the total milk production in the state. The buffalo population was following increasing trend upto 1997 (61.71 lac), but subsequently declined to 50.11 lac with breedable population of 29.72 lac in 2007 census. The daily milk production of lactating buffaloes increased from 4.9 kg in 1990 to 8.52 kg in 2009. The average lactation milk yield of buffaloes in Punjab is comparatively very high i.e. about 1977 kg as compared to the national average of about 1016 kg. Buffalo is preferred over cow as a dairy animal because of its high fat (6.5-8.0%) and SNF (9.00- 10.5%) content, adaptability to harsh climatic conditions, resistance to tropical bovine diseases, ability to utilize low grade roughages and easy disposal of unproductive buffaloes and surplus male calves. But the rate of genetic improvement in buffaloes is very low. The major source of improvement in buffaloes is selection of bulls and their extensive use through the A.I. centers. In the absence of large scale progeny testing programmes, majority of bulls being used in the state are pedigree selected (that too on dam's peak yield estimates) mostly used through natural service. In order to bring substantial improvement in buffaloes it is necessary to develop an efficient system of bull calf production and progeny testing.
- 3.2 **Buffalo Breeding Policy :** The state has Murrah (9.63 lac), Nili Ravi (3.47 lac), and a large population of graded buffaloes (34.98 lac) which represent crosses between Murrah and Nili Ravi breeds as well as non-descript buffaloes (2.03 lac). In order to improve the productivity and to maintain the purity of the two breeds i.e. Murrah and Nili Ravi and also to reduce the population of graded buffaloes, the following breeding programme will be followed :-
 - 3.2.1 The Murrah buffaloes will be bred with Murrah bulls only.
 - 3.2.2 The Nili Ravi buffaloes will be bred with Nili Ravi bulls only.
 - 3.2.3 The graded buffaloes with predominantly Murrah characteristics shall be classified as Murrah graded and bred with Murrah bulls.
 - 3.2.4 The graded buffaloes with predominantly Nili Ravi characteristics shall be classified as Nili Ravi graded and bred with Nili Ravi bulls.
 - 3.2.5 The non-descript buffaloes will be bred with the bulls of either of the predominant breed of the area i.e. Murrah or Nili Ravi.

4.0 Registration of Elite Dairy Animals:

The elite dairy animals of the Institutional, rural dairy farms and peri-urban dairy units can be exploited as a major source of bull calves, which will require proper motivation, incentive, and constant rapport with such farmers. The field staff to be associated with this task would be given proper training, to have authentic records. A directory of elite dairy animals will be maintained by registering the animals available with the institutions as well as the farmers/ peri-urban dairy units which meet the following production standards and have the breed-characteristics:

Breed	Peak Milk Production (kg)/day	Approximate Standard Lactation Milk Yield (Kg)
Murrah buffalo	15	3000
Nili Ravi buffalo	15	3000
HF Purebred	40	7000
HF Crossbred	30	5500
Jersey Purebred	25	4500
Jersey Crossbred	18	3500
Sahiwal	12	2200

- 4.1 Elite animals for registration will be identified by the concerned Veterinary Hospital/Dispensary with due publicity in the media and field camps.
- 4.2 Sub Division level standing committees, constituted by DAH will record the peak milk yield of animals identified under para 4.1 and shall arrange for disease testing. Elite animals can also be registered during milk yield competitions/ dairy shows.
- 4.3 After registration in the directory, the owner of elite animal will be given a certificate with detailed particulars of the animal.
- 4.4 Such animals will be provided special dedicated veterinary services and inseminations with premium bulls.
- 4.5 Bull calves produced from elite animals will be purchased on approved rates depending upon the age of calf, milk yield of dam, sire index and other breed characteristics.
- 4.6 Bull calves from elite animals will be purchased and reared at 3-4 locations and shifted to bull stations after thorough screening for diseases and genetic abnormalities.
- 4.7 Preliminary evaluation of young bulls will be made on the basis of the pedigree records, breeding bull soundness of semen profile and freezability etc. and the best bulls will be shifted to the Sperm Stations and the remaining bulls will be supplied to the Panchayats or Veterinary Institutions or farmers for natural breeding.
- 4.8 Adequate infrastructure of animal registration and data recording will be developed for effective implementation of progeny testing programme with the active participation of the farmers, their SHG's and Cattle/ Buffalo Breeders' Association.

- 4.9 Cattle/Buffalo Breeders' Association will be adequately equipped to assist in the implementation of such programmes with the technical support of the Veterinary University/DAH.
- 4.10 Incentives will be given to owners of the elite animals depending upon the level of production to check the exodus of such animals from the state.
- 4.11 Some incentive/honorarium shall also be given to Veterinary staff for the identification, registration and recording the elite animals and procurement of bull calves from the farmers.

5.0 Performance Recording and Progeny Testing of Bulls: Performance recording and progeny testing are the essential component of any breeding Policy/programme. The performance recording in rural areas is very limited and that too confined to recording the peak yield during milk yield competitions. The Institutional farms of DAH/University with limited animals are undertaking performance recording and in some cases progeny testing on very small number of daughters. Similar is the case with field progeny testing programmes. The state Shall develop adequate infrastructure for performance recording and progeny testing of exotic cattle bulls (including the imported semen), crossbred cattle, Sahiwal Cattle, Murrah buffalo and Nili Ravi buffalo bulls. It is proposed to evaluate the bulls on the basis of atleast 40 daughters by undertaking the field progeny testing programme in defined clusters having the animals of the specific breed and by involving the commercial milk producers. It is proposed to meet atleast 25% requirement of frozen semen from the progeny tested bulls.

6.0 Registration of Bulls: The registration of all the bulls (as per the livestock Improvement Act, 1953) to be used in the state by any organization/individuals will be mandatory. This will include the bulls used through artificial insemination or natural mating as well as semen procured from other states/countries. The registration authority will ensure that the bulls meet the minimum prescribed standards w.r.t. production, reproduction, health and semen profile. The registration will be valid for one year only and for renewal of registration, testing for specified diseases will be necessary. Any Bull Station having a single positive case of the specified diseases will be required to undertake six-monthly disease testing protocol and will destroy all the doses of frozen semen and shall withdraw all the doses of positive bulls supplied to AI centres or farmers. All the positive testing bulls at Bull Stations or used through natural mating will be sterilized by the concerned organization/individual under intimation to the registering authority. Legal frame work will be developed to effectively implement this programme.

- 6.1 All the agencies doing A.I. will have to submit follow up reports including calves born repot to department Animal Husbandry, Punjab.
- 6.2 All the sperm station operating in the state will produce H.F. and H.F. cross semen in the ratio of 40:60.

Chandigarh :
The 26th June, 2012.

JAGPAL SINGH SANDHU
Financial Commissioner, Government of Punjab
Department of Animal Husbandry,
Fisheries and Dairy Development