

From the Editor's desk:

Index

Editor's Desk -----	i
Cattle Biodiverstiy -----	1
Cow insight Gaolao -----	8

The Spirit of Rama :

With the onset of spring we are moving towards yet another Ugadhi. In this contemporary world every Ugadhi arrives with its own significance. In Indian tradition, the coming of every New Year brings with it a reason for resolutions. It is the right time to begin our journey towards greater future achievements. In the context of Ramachandrapur Mutt, Ugadhi is when worship of Lord Rama begins with much renewed vigor and rejuvenation and this New Year is no exception to that tradition. In the great lineage of masters, established by Shri Shankara Bhagavatpadha, Ramanavami holds a unique distinction. Since time immemorial, worship of the divine idol of Lord Rama which was blessed to Sage Varadha by his master Sage Agasthya has been carried on until this day at Ramachandrapur Mutt. In recent times, such worship has reached greater and grander scales and "Shri Ramayana Mahasathra" is a historical milestone in that attempt. At present "Shri Rama Sathra" is such a unique resolution for this year.

"But why worship only Lord Rama ?" is a natural question. As an answer to this question if we have the support of tradition to fall back on one hand, on the other hand I believe that Shri Rama is the only answer to all the current problems. "Rama Rajya" was not mere imagination. It my unwavering conviction, that "Rama Rajya" was the phrase that defined a totality. Rama-Rajya stood for prosperity and there was no place in it for enmity, selfishness, hatred, pain and hunger. This isn't a wish or a miracle, but a factual explanation.



Is it really possible that such a prosperous kingdom ever existed? One must doubt for doubt is the proof of an active mind and the answer for that doubt is Rama again. Because in Indian belief Rama was not a mere ideal; but Rama was the proof of practice. Rama was an expression of flawlessness and if one chooses all the great qualities and gives it the shape of an individual, then it was Rama and such a divine purity reverberated all through the society of that time. People saw Rama in each other and respected everyone as the manifestation of Lord Rama Himself. In a place where there was no denial of Rama, it is no surprise that people respected each other as reflections of the Lord. There was no reason for men to kill, hurt and cheat one another. Sin had no place in their dictionary.

Such a Rama-Rajya was a part of this subcontinent and "Shri Rama Sathra" is a celebration in its remembrance. It is an attempt to transcend back to that time by visualizing the events of Ramayana. In Ramachandrapur Mutt, by means of different cultural and traditional expressions Ramayana is going to come alive in this celebration. Let us be a part of this celebration on the 14th and 15th of this April 2008, at Ramachandrapur Mutt and rekindle the spirit of Rama in one and all.

- His Holiness Shri Shri Raghaveshwara Bharathi Mahaswamiji.

Cattle Biodiversity of India -P.K. Singh

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Indian cattle population is an integral part of the agriculture. Thus the cattle occupy central position and are basis of the Indian rural livelihood security. The cattle biodiversity in India constitutes 33 well-defined breeds of cattle apart from non-descript types and some lesser known breeds which constitute around 75% of the total cattle population (185.18 million as per livestock census of 2003). India is highest milk producing country of the world and total milk contribution of cows is 40% in total milk production of 90.7 million metric tones. The cattle and buffalo account for more than two third of the total output value of the livestock sector. Various indigenous breeds of cattle in the country are the result of thousands of years of selection, evolution and development of the wild species in the process of domestication suiting to the local agro-climatic conditions. These breeds are now losing ground due to stiffer competition from other breeds and due to their poor economic viability under the present system of management.

The Indian cattle breeds were developed mainly for agricultural operations therefore, majority of these breeds belong to draft category (Nagori, Bachaur, Kenkatha, Malvi, Nimari, Kenkatha, Ponwar, Kherigarh, Hallikar, Amritmahal, Khillari, Red Kandhari, Dangi, Bargur, Kangayam, Ponwar, Siri etc.). The milk production of these breeds is very low therefore uneconomical, if kept for milk purpose only. This resulted in decline of many cattle breeds in the present day production system. The mechanization and commercialization of agriculture has influenced the utility of these breeds as draft animals. Dairy type cattle breeds are Sahiwal, Red Sindhi, Gir, Kankrej and Rath. Cows of these breeds are high milk producers but bullocks are of poor draft quality. The dual-purpose cattle breeds viz. Hariana, Ongole, Tharparkar, Krishna Valley, Mewati,

Deoni and Gaolao are fairly good milkers and bullocks provide good draft power. There are three breeds (Punganur, Vechur and Malnad Gidda) which of lesser body weight and suitable for hilly regions.

The cattle breeds of North West region adjoining to Pakistan viz. Sahiwal, Red Sindhi and Tharparkar have their breeding tract in Pakistan and very few animals are available in the country. The situation is critical for Sahiwal and Red Sindhi animals, which can be put in category of threatened breeds. The population of Tharparkar is more than these two breeds but it also calls for conservation through genetic improvement. Due to the mechanization, the use of bullocks as draft power has reduced resulting in to steep decline in the population of the most famous dual-purpose breed of North India, Hariana, Rath and Nagori breeds also do not seem to have a bright prospect. Breeds in the central India particularly, Malvi and Nimari have also been exploited by introduction of crossbreeding and have shown decline in the population.

Dangi, Deoni, Red Kandhari, Khillar and Gaolao breeds in Maharashtra region and Gir and Kankrej in Gujarat region have a better population status due to their economic viability. The Red Kandhari strain of cattle of Maharashtra has also a very small population but it secured due to preference of this breed as draft animal by the farmers of the area. The Kangayam and Ongole still have a good population and some improvement programmes are going on. In the last decade two small sized breeds have been cited namely 'Punganur' in Andhra Pradesh and 'Vechur' in Kerala, which have a small population and are in threatened category. Some of other draft breeds such as Ponwar, Kherigarh, Krishna Valley and Bargur cattle also needs immediate attention for conservation.

Cattle Population in India: The trend of cattle population in India indicted a decline of 2.8% during 1992-97 and 5.8% during 1997-2003 with increase in buffalo population during same period. This shows that buffalo is

accepted as the choice of animal for milk in India.

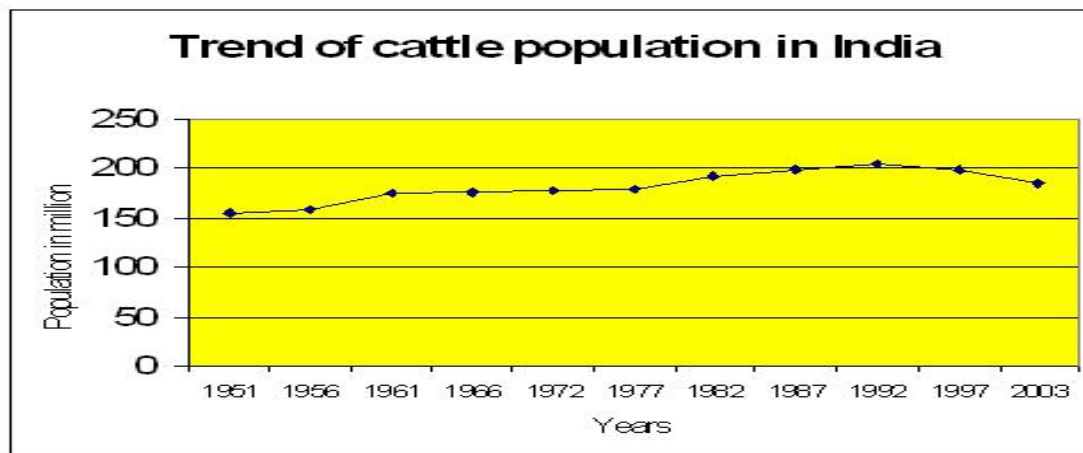
weightage when contribution of cattle to national GDP is estimated. With the increasing demand of milk, some of the

Category	Population in million			Percent Increase /decrease 1992-97	Percent Increase/decrease 1997-2003
	1992	1997	2003		
Crossbred	15.22	20.01	24.48	34.2	22.3
Indigenous	189.37	178.78	160.7	-5.6	-10.1
Total	204.58	198.88	185.18	-2.8	-6.9

As per livestock census 2003, cattle are about 38.3% of total livestock population in the country (484 million). Therefore, it is very important to make judicious use of this cattle wealth in national economy. The population trend of cattle has been depicted in the following figure:

breeds were improved genetically for higher milk production and about 40% of the total milk of the country comes from cows. Different utility of cattle in India is given below:

1. They produce motive power for agricultural operations in terms of bullock.
2. They produce milk which supply the



Utility of indigenous cattle genetic resources: The primary reason for cattle husbandry in India has been the draft utility of bullocks for different kind of agricultural operations. As per Singh (1999) with the modernization of agriculture, the use of mechanical power in agriculture has increased but draught animal power (DAP) continues to be used on Indian Farms due to small holding and hill agriculture. More than 55% of total cultivated area is still being managed by using draught animals against about 20% by tractors. India possessed the finest breeds of draught animals and bullocks of these breeds are fit for all kinds of agricultural operation. It is unfortunate that the DAP is not getting due

essential nutrients to the farmers' families and cater the requirement of urban population.

3. It provides considerable job opportunities to the large rural population specially women and youth.
4. They produce fertilizer in terms of compost from freshly laid dung. The dung is also made into cakes, sun dried and used as fuel in rural sector.
5. The skin of animals form basic material for tanning industry.
6. The products and byproducts of cattle are used in preparation of Ayurvedic medicines.

Origin, Distribution and present population status of Indian cattle breeds: The origin, distribution and present status of Indian cattle breeds have been depicted in the following Table:

Table: Origin, distribution and present status of Indian cattle breeds

S.NO	Breed	Category	Breeding tract	Approximate population	Reference
1.	Amritmahal	Draft	Hassan, Chikmagalur and Chitradurga districts of Karnataka	25,000	Network Project on AnGR-2000-2002
2.	Bachaur	Draft	Sitamari and some part of Madhubani, Darbhanga Samastipur and Muzaffarpur districts of Bihar	10,948	Network Project on AnGR-2000-2002
3.	Bargur	Draft	Bargur hills in Bhavani taluk of Erode district of Tamil Nadu	NA	
4.	Dangi	Draft	Nasik and Ahmednagar districts of Maharashtra	1,08,197	Network Project on AnGR-2000-2002
5.	Deoni	Dual	Marathwada region of Maharashtra State	1,18,945	Network Project on AnGR-1998-2000
6.	Gaolao	Dual	Wardha and nearby districts of Maharashtra	NA	
7.	Gir	Milch	Gir hills and forest of Kathiawar comprising Junagarh, Bhavnagar and Amreli districts of Gujrat	9,17,081	Network Project on AnGR-1998-2000
8.	Hallikar	Darft	Mysore, Mandya, Bangalore, Kolar, Tumkur, Hassan and Chitradurga districts of Karnataka.	About 20 Lakhs	AHD, Karnataka
9.	Hariana	Dual	Rohtak, Hisar and Gurgaon districts of the Haryana State.	NA	-
10.	Kangayam	Darft	Kangayam, Dharapuram, Perundurai, Erode, Bhavani districts of TamilNadu.	4,79,200	AnGR of India-Cattle & Buffalo
11.	Kankrej	Milch	Southeast Rann of Kutch of Gujrat and Barmar and Jodhpur districts of Rajsthan	NA	-
12.	Kenkatha	Draft	Bundelkhand comprising Lalitpur, Hamirpur and Banda districts of UP.	NA	-
13.	Kherigarh	Draft	Lakhimpur-Khari district of UP.	15,709	NBAGR Pilot project- 2002

S.NO	Breed	Category	Breeding tract	Approximate population	Reference
14.	Khillar	Draft	Kolapur, Solapur, Sangli and Satara district of Maharashtra.	8.12 Lakhs	Network Project on AnGR-2004-06
15.	Krishna Valley	Draft	Solapur, Sangli and Satara district of Maharashtra	Approx. 250	-
16.	Malvi	Dual	Indor, Ratlam, Mandasaur, Dewas, Sajapur, Ujjain and Rajgarh districts of MP. and Jhalawar district of Rajasthan	53,700	JNKVV Research Bulletin DRS/2002/01
17.	Mewati	Dual	Alwar and Bharatpur districts of Rajasthan and Mathura and Kosi in western UP.	NA	-
18.	Nagori	Draft	Nagaur and Jodhpur districts of Rajasthan.	1.73 Lakhs	NBAGR Research Bulletin No. 6-1997
19.	Nimari	Draft	Narmada valley in M. P. and some also found Jalgaon district of Maharashtra	1.10 Lakhs	JNKVV Research Bulletin DRS/2001/9
20.	Ongole	Draft	coast from Nellore to Vizianagaram, Chittoor, Kurnool, Cuddapah, Anantapur, Nalgonda, Mahabubnagar and Khammam districts of AP.	7341 in 60 villages under survey	Network Project on AnGR-1998-2000
21.	Ponwar	Draft	Pilibhit district of UP	10,667	NBAGR Pilot project- 2002
22.	Punganur	Draft	Chittoor district of Andhra Pradesh	In hundreds only	-
23.	Rathi	Milch	Bikaner, Ganganagar and Jaisalmer districts of Rajasthan.	NA	-
24.	Red Kandhari	Draft	Kandhar, Nanded, Latur and Parbhani districts of Marathwara region	14,000	Maharashtra AHD census
25.	Red Sindhi	Milch	Karachi and Hyderabad districts of Pakistan	NA	-
26.	Sahiwal	Milch	Fazilka and Abohar towns of Ferozepur districts of Punjab	NA	-

S.NO	Breed	Category	Breeding tract	Approximate population	Reference
27.	Siri	Draft	Bhutan, Sikkim and West Bengal	10,000	AHD, Sikkim
28.	Tharparkar	Dual	Thar desert Tharparker district of southeast Sindh in Pakistan	NA	-
29.	Umblachery	Draft	coastal plains of Thiruvavur and Nagapattinam districts of Tamilnadu.	2.83 Lakhs	Network Project on AnGR-1998-2000
30.	Vechur	Draft	Kottayam district of south Kerala	In hundreds only	-
31.	Gangatiri	Dual	Eastern parts of Uttar Pradesh and western parts of Bihar (Mainly Varanasi, Chandauli, Ghazipur, Ballia, Arrah (Bhojpur), Buxar, Chhapra, Sasaram and Bhabhua (Kaimur) of Bihar.)	67,000	NBAGR Pilot survey
32.	Malnad Gidda	Draft/Ma nure	Malnad area of Karnataka (Mainly in Shimoga, Belgaum, Chikmagalur, North and South Kannad districts)	More than 10 lakhs	AHD Report, Karnataka
33.	Tho Tho	Draft	Nagaland	89,337	Network Project on AnGR-2004-06

Some Lesser Known Cattle Breeds are Vatakura and Kasargod (Kerala), Alambadi, Pulikulam (Tamilnadu), Trinket (A&N Islands), Bengali (WB), Binjarpuri, Ghumsuri (Orissa), Kumauni (Uttanchal), Purnea (Bihar). Some cattle strains like Frieswal, Karanswiss, Karanfries, Sunandini, Jersind are also present but in limited number at organized herd.

There is nothing wrong with crossbreeding but it needs to be implemented with caution. The need to utilize between-breed genetic differences via crossbreeding (where it is appropriate) is fully appreciated but there is an urgent need to give greater emphasis to the locally adapted animal genetic resources. Indigenous breeds survive, produce and reproduce in the environmental conditions under which they have developed.

Crossbreds can produce more milk but they need more and better feed, and resources to exploit the potential. There is not going to be any major change in the production system-involving medium to low input in foreseeable future. Hence, under these conditions, locally adapted indigenous breeds should be favoured. Further, relative variability amongst animals for the traits of interest is often very much higher in the locally adapted breeds. This between animal variability can be exploited for higher genetic gains through well planned and executed breeding programmes. Breeding policy should be framed as:

- Recognized breeds of Indian cattle especially milch breeds should be left out of crossbreeding programme to be improved through selective breeding only. These breeds should be used to upgrade local cattle

in areas having low availability of feed, fodder and other resources.

· Crossbreeding should be implemented only in potential areas having availability of quality feeds at relatively low prices, demand for cow milk, low demand for draught animals and accessibility to veterinary facilities. Only the non-descript or low producing animals should be bred through crossbreeding.

Artificial Insemination: Artificial insemination is a tool to implement breeding policy in cattle and buffaloes in India. India has the world's largest A.I. infrastructure consisting 73 frozen semen stations keeping around 2500 bulls and having capacity to produce 36 million doses of frozen semen annually. The total AI done in the country is something around 27 million during 1999-2000. AI for cattle and buffalo is one of the most important services provided by State Govt. Different AI centers and mobile units are also working in the country by milk cooperatives and NGOs. The growth in AI is steady, however the AI coverage on a national level is around 12% and in many parts of the country is far from satisfactory. The Govt. of India has proposed to increase the coverage of AI from the present 12 to 40 percent in the coming 10 years. State Governments have to ensure the quality of semen from collection to insemination so as to develop the faith of farmers in AI programme. Further, the semen of extraordinary bulls/progeny tested bulls should be used to get good results in succeeding generations. In India, so far preserved frozen semen of exotic breeds of cattle and only the important breeds of cattle is available. The following breeds of cattle has been taken up under AI programme so far:

Amritmahal, Deoni, Gir, Hallikar, Haryana, Kangayam, Kanjkrej, Khillari, Malvi, Nagori, Ongole, Rathi, Red kandhari, Red Sindhi, Sahiwal, Tharparkar and Umblacherry.

Rest of the cattle breeds should also be included in AI and genetic improvement programmes of respective states.

Present genetic improvement programme for cattle and buffalo in India:

A new comprehensive scheme, National Project for Cattle and Buffalo Breeding (NPCBB) has been formulated with following innovations over previous programme:

1. Integration of states' breeding policies with breeding programmes for better implementation of policy.
2. Developing synergies of all major players including ICAR-SAU system, NGOs and Gaushalas.
3. Institutional reforms in organizations undertaking cattle and buffalo breeding activities and more autonomy to implementing agencies in the states.
4. Promoting use of registered quality bulls for breeding.
5. Increased use of indigenous breeds for grading up non descript stock..
6. Promoting breed organizations.
7. Improving quality and coverage of AI through mobile AI services.
8. Programmes for areas covered under natural service and replacement of inferior bulls.

Recommendations:

1. Accurate breed wise census of all the cattle breeds and lesser-known breeds should be carried out by the department of Animal Husbandry.
2. A Breed Registration Authority should be constituted at national level so as to register all livestock and poultry breeds.
3. The performance recording of field animals along with breeding and health parameters recording may be planned with the involvement of Government and non-government agencies. The data and information collected from the farmers must be accurate and properly documented for future use.
4. Every State must develop its livestock breeding policy, review and revise the same periodically. The livestock policies and programmes to be adopted by State should be developed by a group of experts and thoroughly discussed with all stakeholders before its release as government order. Based on State breeding policy, species and breed wise breeding schemes, breeding plans

and breeding operations must be framed and implemented.

5. The genetic improvement and conservation programmes should be formulated and implemented. Immediate action is needed for endangered breeds from respective state government.

6. Recognized breeds of Indian cattle should be left out of crossbreeding programme and should be improved through selective breeding only. These breeds should be used to upgrade local cattle in areas having low availability of feed, fodder and other resources. Crossbreeding should be implemented only in potential areas having availability of quality feeds at relatively low prices, demand for cow milk, low demand for draught animals and accessibility to veterinary facilities. Only the non-descript or low producing animals should be bred through crossbreeding.

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Article extracted from

<http://www.vishwagou.org/Cattle%20biodiversity%20of%20india.htm>

Cow Insight - Gaolao

The Gaolao is a dual-purpose breed reared for draught (mainly fast transportation and milk production). This breed is found in Wardha district of Maharashtra; and Balaghat, Chhindwara, Durg, Rajnandgaon (earlier part of Durg) and Seoni districts of Madhya Pradesh. There is a close similarity between the Ongole and the Gaolao except that the latter is much lighter with greater agility. In the eighteen-century the Marathas developed this breed as a fast trotting type suitable for quick army transport in hills.

LOCATION AND TOPOGRAPHY

The breeding tract lies between 200 25' and 825' east longitude. Most of the areas in the breeding tract is hilly and consists of a long strip of land extending from northwest to southeast. The average altitude is

SOIL

The whole area consists of a thin covering of black or brown soil over a sheet of trap rock. Shallow brown soil mixed with sand is found in the hilly regions.

CLIMATE

Climate environment is sub-tropical. Summer becomes oppressive, particularly during April to July. Winters are very mild. Temperature varies from 100 to 390 C.

MANAGEMENT PRACTICES

Herd size is normally 6 to 8 but some farmers have large herds. Animals grazed in the grasslands preserved by the forest department. Grazing is usually available from middle of July to the end of October. Sorghum is the principal crop to the area. Grains are used for human consumption while the stover is fed to cattle. Cows and young stock are usually undernourished but bullocks and young male calves ready for sale are well fed. Cottonseed, linseed or groundnuts are given as concentrates. Bullocks are particularly trained to run fast.

PHYSICAL CHARACTERISTICS

Gaolao animals are white or light grey. Males are generally grey over the neck, hump and quarters, medium sized, light built, narrow and long. Head is markedly long and narrow usually tapering towards the muzzle. Forehead is usually flat, though it appears to recede at the top, giving a slightly convex

appearance. Eyes are almond shaped and placed slightly at angles. Ears are of medium size and carried high. Horns are short and stumpy, blunt at the point and curve slightly backward. Hump is well developed, loose and hangs on one side. Dewlap is voluminous but the sheath is moderately developed. Tail is short, reaching just below hocks.

MORPHOMETRIC AND PERFORMANCE PARAMETERS

Average length, height and heart girth of Gaolao animal is around 118, 143 and 180 CM, respectively, in males, and 108, 125 and 173 CM, respectively, in females. Average body weight is around 430 kg in males and 340 kg in females. Average age at first calving is around 1300 days. Milk production is about 600kg (range 470-725 kg) in a lactation of about 240 days. Fat is about 5.5%. Average service period is around 93 days and calving interval around 387 days.

BREEDING FARMS

Central Breeding institute, Hetikundi, Wardha, Maharashtra.

Cattle Breeding Farm: Hetikundi; Pohara; Yeotmal, Maharashtra

CONTACT AGENCIES

State animal Husbandry Department, Maharashtra

State animal Husbandry Department, Madhyapradesh

