

Miniature Cattle breeds

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[DOI:10.5281/Vettoday.14515695](https://doi.org/10.5281/Vettoday.14515695)

Introduction

The livestock sector plays a very important role in India's economy, contributing significantly to the livelihood of millions. Among the many livestock options available, miniature cows often referred to as dwarf cows offer a sustainable alternative to conventional cattle farming. With diminishing farmland, increasing urbanization and the need for sustainable agricultural practices, miniature cows have emerged as a viable solution for small farmers and urban dwellers alike. As per the 20th livestock census India possesses 192.49 million cattle which is 0.8 % higher than the previous livestock census. Interesting fact about 20th livestock census is that in cattle population there is increase in female animal population by 18.0 % but reduction in male animal population by 30.2 % which shows that demand of milk is increasing the demand for draft power in decrease due to mechanization and other factor. Now increase in livestock population also increases the demand for fodder and other facilities like space requirement, house etc, so miniature cows can be an alternate for that. Miniature cows, becoming increasingly popular in India, present a unique opportunity within the agricultural landscape. These small scale bovines, often characterized by their reduced size, have attracted attention for their adaptability, lower resource requirements and potential as suitable livestock options for smallholder farmers. India with the challenges of population growth, urbanization and environmental sustainability, the promotion and integration of miniature cows into the agricultural landscape could play a significant role in meeting these challenges. Through awareness, education and improved market access, miniature cows could reshape the future of sustainable agriculture in India.

Benefits of keeping miniature cows:

- **Space Efficiency**
 - Miniature cows require substantially less space than conventional cattle breeds, making them ideal for small farms and urban environments. This makes them particularly appealing in densely populated areas where land is limited.
- **Reduced Resource Requirements**
 - These cows consume less feed and water contributing to lower operational costs. This reduced resource requirement makes them economically viable for low income farmers who may struggle with the costs associated with traditional cattle farming.
- **Milk Production**
 - Despite their smaller size many miniature breeds produce a considerable amount of milk relative to their size. This can provide a steady source of income for farmers and support local economies. The milk is often richer in fat and protein, making it highly desirable.
- **Climate Adaptability**
 - Miniature cows are generally more resilient to local climates including the heat and humidity prevalent in many regions of India. Their hardiness enables them to thrive in various environmental conditions.
- **Cultural Significance**
 - In many Indian cultures cattle hold a sacred place symbolizing prosperity and fertility. Miniature cows can fulfill cultural and spiritual roles within communities, providing a connection to traditional agricultural practices.

Challenges to keep miniature cows:

- **Limited Awareness and Education**
 - Despite the benefits, there is a notable lack of awareness among farmers about the advantages of miniature cows. Educational programs are

essential to inform farmers of the potential of these breeds.

Market Access

- Farmers raising miniature cows may face challenges accessing markets for their products. Developing local markets, distribution channels, and pricing structures for miniature cow products would enhance their economic viability.

- **Breeding Practices**

- The availability of quality breeding stock remains a challenge in India. Encouraging responsible breeding practices and ensuring healthy genetic diversity are vital for sustainability.

- **Veterinary Care**

- Access to veterinary services can be limited, particularly in rural areas. This affects the health and productivity of miniature cows, necessitating better healthcare frameworks for livestock.

Some of the miniature cows around the world

S r. n o.	Breed (Place of origin)	Description
1.	Punganur (Andhra Pradesh, India)	<ul style="list-style-type: none"> ● NBAGR accession no.: INDIA_CATTLE_0100_P UNGANUR_03022 ● Dual purpose breed ● Coat colour: white, grey or light brown to dark brown or red in colour. Sometimes, animals with white colour mixed with red, brown or black coloured patches are also seen. ● Average milk yield of the breed is 546 Kg per lactation (ranging from 194 to 1100 Kg) with 5% average milk fat.
2.	Vechur (Kerala)	<ul style="list-style-type: none"> ● NBAGR accession no: INDIA_CATTLE_0900_ VECHUR_03030 ● Coat colour: Light red, black or fawn and white in colour. In bulls, colour in between fore and hindquarters is relatively dark or dark grey.

		<ul style="list-style-type: none"> ● Average length of animal = 124 cm and height = 87 cm ● Average milk yield is 561 Kg per lactation and the milk fat percent ranges from 4.7 to 5.8.
3.	Kasaragod (Kerala)	<ul style="list-style-type: none"> ● High milking ability ● Average height of male animal = 107 cm and female animal = 95 cm
4.	Malnad Gidda (Karnataka)	<ul style="list-style-type: none"> ● NBAGR accession no: INDIA_CATTLE_0800_ MALNADGIDDA_03037 ● Average height at wither = 90 cm, Milk yield is up to 3-4 ltrs per day.
5.	Thenmala Kullan (Kerala)	<ul style="list-style-type: none"> ● Dwarf breed, Small hump, Less docile
6.	Achham (Nepal)	<ul style="list-style-type: none"> ● Also k/a Naumuthe cow. Milk purpose breed ● Average height of adult male animal: 97 cm; Average height of adult female animal: 88 cm ● Body weight = 100 – 150 kg
7.	Australian Lowline (Australia)	<ul style="list-style-type: none"> ● Beef purpose breed ● Average adult male animal height =110 cm; Average adult female animal height = 110 cm ● Average body weight male = 400 kg; average body weight female = 320 kg
8.	Dexter (Ireland)	<ul style="list-style-type: none"> ● Dual purpose breed (Milk and beef) ● Adult male animal height =102 -112 cm; Adult female animal height = 97 - 107 cm ● Average adult body weight = 325 kg
9.	Lagune (Benin, Congo, Côte d'Ivoire, Gabon, Togo)	<ul style="list-style-type: none"> ● Average height of male animal = 100 and female animal = 80 cm