



3.3.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS) including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of technology/knowledge and the outcomes of the same are evident

## Gaushala

### Indian Knowledge System (IKS) funded Research Project



**INDIAN KNOWLEDGE SYSTEMS DIVISION**

Ministry of Education, Govt of India.

AICTE Headquarters, Nelson Mandela Marg, Vasant Kunj, New Delhi-110070.

Website: [www.iksindia.org](http://www.iksindia.org)

Tel: 011-29581523/1005.

F.No.2-36/IKS/RFP-4/2022-23/04

Dated:23/05/2023

Dear **Dr. Rohan Pandya**,

Namaste,

Congratulations! Your following research proposal submitted to the IKS Division has been approved for funding after a rigorous three phase peer review.

- **Title:** Development of quality biofertilizer using cow dung: Metagenomic studies of Gir and Kankrej breed
- **Principal Investigator:** **Dr. Rohan Pandya**, Atmiya University, Rajkot, Gujarat
- **Co-Principal Investigator:** Dr. Abhijeet Joshi
- **Sanctioned amount:** Total Rs. 13,48,000/- (**Thirteen Lakhs Forty-Eight Thousand Only**)

Given below is the approved budget for your approved project proposal. The reporting requirements and the details of mid project review process will be provided in the sanction letter.

Head	Year 1 (Rs.)	Year 2 (Rs.)	Total (Rs.)
Salaries	216000	216000	432000
Supplies	600000	256000	856000
Travel	10000	10000	20000
Equipment/ Books	0	0	0
Contingencies	20000	20000	40000
Overhead	0	0	0
<b>Total</b>	<b>846000</b>	<b>502000</b>	<b>1348000</b>

The proposal selection process was very competitive and only < 1.57 % of the total proposals submitted were selected for funding after a rigorous three-stage review by a distinguished panel of reviewers.

We sincerely wish you the very best and hope that your project will bring out exciting results that will be useful to society. Please feel free to reach us if you have any questions. I once again congratulate you and your team on this big achievement.

Best Wishes,

**Prof. Ganti S Murthy**

National Coordinator

IKS Division, MoE,

Govt of India.



**Registrar**

**Atmiya University**

Atmiya University Rajkot Rajkot-Gujarat-India



## ATMIYA GAUSHALA



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Yogidham Gurukul, Kalawad Road, Rajkot 360005, Gujarat, Bharat

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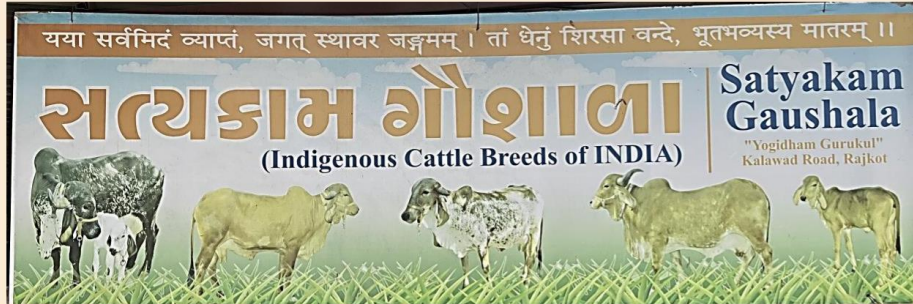
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Satyakaam Gaushala



YEAR OF ESTABLISHMENT

11 July 2019

BREED

Gir Cow (*Bos primigenius indicus*)

Hailing from the sun-drenched plains of western India, the Gir cow (*Bos indicus*) stands as a testament to resilience, adaptability, and cultural significance. This majestic breed, boasting a humped back and characteristic dewlap, has thrived for centuries under harsh tropical conditions, providing not just sustenance but also a deep connection to the Indian way of life.

ORIGINS AND HISTORY: A BREED STEEPED IN TRADITION

The Gir cow's ancestry can be traced back to the Zebu, a subspecies of the Aurochs, the now-extinct wild ancestor of all modern cattle. Domestication of Zebu cattle likely occurred around 8000 BC in the Indus Valley Civilization, making the Gir one of the **oldest cattle breeds in existence**. Their journey specifically to the Saurashtra region of Gujarat, a peninsula jutting into the Arabian Sea.

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These cows were revered for their **gentle nature** and considered **sacred in Hinduism**. The Gir finds mention in ancient scriptures like the Vedas, where they are lauded for their role in sustaining life. **Owning a Gir cow was a mark of prosperity**, and their **milk was believed to possess medicinal properties**. This deep cultural connection continues to this day, with Gir cows often adorned with colorful fabrics and sindoor (vermillion powder) during festivals.

**A Beacon of Adaptability: Thriving in the Tropics**

The Gir's defining characteristic is its perfect adaptation to India's hot and humid climate. The prominent hump on their back stores fat reserves, providing a source of energy during periods of scarcity. Their loose skin allows for better heat dissipation, while their long, drooping ears help regulate body temperature.

These cows possess a remarkable tolerance to harsh terrains and are known for their ability to thrive on low-quality forage, a crucial feature in regions with limited green cover. Their strong hooves navigate rocky terrain with ease, and their long legs allow them to wade through flooded fields during monsoon season.

- Average Weight (Cow) : 385 kg**
- Average Height (Cow) : 130 cm**
- Average Weight (Bull) : 545 kg**
- Average Height (Bull) : 140 cm**
- Average Weight (Calf) : 20 kg**

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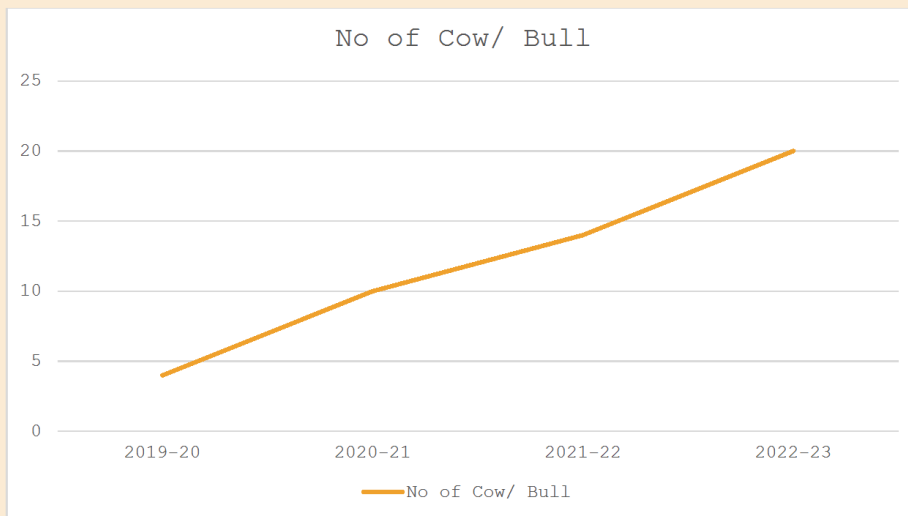




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YEAR WISE LIST OF COWS

YEAR	NO OF COW/ BULL
2019-20	4
2020-21	10
2021-22	14
2022-23	20
2023-24	26



**Health and Wellbeing of the cows**

Herbal Plantation in the Gaushala

- Bamboo
- Hawthorn
- Billy
- Borsally
- Soapnut
- Terminalia arjuna
- Acacia catechu (Kher)
- Ficus religios
- Karanja- Pongamia pinnata

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- Neem
- Custard apple
- Polyalthia Longifolia, Asopalav.

DIVERSIFIED FOOD FOR COW

REGULAR FOOD

- Green Maize
- Green Barley
- Dried Barley
- Groundnut
- Jaggery
- Cottonseed shell
- Wheat
- Mineral Mix Powder

SPECIALTY FOOD (FOR HEALTH AND WELLNESS)

- Ashvagandha
- Sataavri
- Coffee
- Giloy
- Asafoetida
- Oil
- Pink Salt
- Liquid Calcium

& many other.

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### FACILITIES

- Raw Dusty Area
- Cemented Area
- Godown
- Permanent Keepers
- Clean Drinking Water Discharge System
- Fans
- Lighting
- Cleanliness
- Mosquito repellent machine
- Veterinary doctor on call (Dr. Gautambhai Dobariya)
- Dedicated Gaushala Coordinator (Mr. Dilipbhai Bhanderi)

### ITS NOT CATTLE, ITS FAMILY MEMBER FOR US

Names of Cow	Birth Profile
Bansi	13/06/2009
Bhakti	18/07/2009
Karuna	05/09/2009
Vandana	25/11/2011
Krupa	14/10/2013
Amruta	10/05/2015
Nandita	15/06/2015
Akshara	14/09/2015
Rajal	15/09/2015
Balraam (Bull)	27/09/2015
Devki	18/09/2017
Pooja	14/09/2019
Heer (Bull)	08/12/2019
Tresha	18/08/2020
Jaanki	21/08/2020
Anjali	27/08/2020
Gopi	29/08/2020
Gauri	12/11/2020
Suman	19/11/2020
Mira	20/06/2021
Kano	07/11/2023
Rupa	28/02/2024
Poonam	28/02/2024
Golu	04/03/2024
Gopi-2	08/03/2024
Rajal-2	19/03/2024

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<b>Names of Cow</b>	<b>Birth Profile</b>
<b>Aarti</b>	<b>01/04/2024</b>

**MILK PROFILES**

**DAILY MILK PRODUCTION**

Average 07 Liters Per Cow

Fat : 06 to 08

Atmiya-Satyakaam-Gaushala never sells milk, it is utilized for their calf and remaining milk goes to internal uses.

**OUR GIR COW PRODUCES A2 MILK: A LIQUID TREASURE FROM INDIA**

In the tapestry of India's diverse food culture, A2 milk of the Gir cow holds a special place. Renowned for its rich taste, creamy texture, and potential health benefits, this milk is a unique offering with a fascinating history and lineage. This introduction delves into the world of A2 Gir cow milk, exploring its origin, characteristics, and the reasons behind its growing popularity.

**THE MAJESTY OF THE GIR COW: A LEGACY UNFOLDING**

The traditional rearing practices of Gir cows play a crucial role in the unique characteristics of their milk. These cows are typically raised free-range, grazing on natural pastures and fed with locally grown crops. Our approach is **"natural"** or **"ethical" nurturing** and contributes to the overall health of the cows and the quality of the milk they produce.

**A TALE OF TWO PROTEINS: UNVEILING THE A2 ADVANTAGE**

A2 milk from Gir Cows of Satyakaam Gaushala refers to the specific type of beta-casein protein found in the milk. Beta-casein is a major protein component in milk, and there are two primary variants – A1 and A2. While both are essential nutrients, some studies suggest that A2 milk might be easier to digest for individuals with lactose intolerance.

Regular cow's milk, primarily from western breeds like Holstein or Friesian, predominantly contains the A1 beta-casein protein. During digestion, A1 breaks down into a smaller peptide called beta-casomorphin-7 (BCM-7). Some research

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suggests that BCM-7 might have negative effects on gut health, particularly for those with lactose intolerance.

A2 milk, on the other hand, naturally contains only the A2 beta-casein protein. This protein breaks down into different peptides during digestion, potentially causing less digestive discomfort for some individuals. While more research is needed to definitively establish the link between A1 and digestive issues, the potential benefits of A2 milk have garnered significant interest from consumers.

**BEYOND A2: EXPLORING THE RICHNESS OF GIR COW MILK**

The allure of A2 Gir cow milk goes beyond the specific protein type. This milk is lauded for its:

**Rich Creaminess:** Compared to regular milk, A2 Gir cow milk boasts a higher fat content, resulting in a naturally creamy texture and a richer taste.

**Enhanced Nutritional Profile:** Gir cow milk is believed to be a good source of essential nutrients like calcium, phosphorus, vitamins A and D, and beneficial fatty acids.

**Ayurvedic Significance:** In traditional Indian medicine (Ayurveda), Gir cow milk is considered to possess "Satvic" qualities – pure, light, and energy-enhancing.

**A GROWING TREND: EMBRACING TRADITION AND SUSTAINABILITY**

The appreciation for A2 Gir cow milk is on the rise, driven by a growing interest in natural and organic products, a desire for easier digestion, and the perceived health benefits. This trend aligns with a broader movement towards sustainable and ethical food production practices, placing a premium on the well-being of animals and the quality of the final product.

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IMPACT OF SATYAKAAM GAUSHALA

Satyakaam Gaushala

• **Tangible Impact**

- Milk Production
- Milk Products
- Fertilizer Production
- Sustainable Pesticides from Cow Urine
- Incense sticks production
- Many More

• **Intangible Impact**

- Spiritual/ Emotional Connect
- Nearness to Nature
- Quality Education
- Research Projects
- Student Internships
- Stress Relief
- Happiness



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PHOTOGRAPHIC GLIMPSE



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**જમીનનું અમૃત**



દેશી ગાયનું તાજુ છાણ : ૧૦ કિલો



૫૬ નીચેની માટી : ૧ મુઠી



કોળાનો લોટ : ૧ કિલો



દેશી ગાયનું ગોમુખ : ૧૦ લીટર



દેશી ગોળ : ૧ કિલો



પાણી : ૧૭૦ થી ૧૮૦ લીટર



**જીવામૃત**  
૨૦૦ લિટર બેરલ

બનાવવાની રીત	વપરાશની રીત	સાવચેતીઓ
<ul style="list-style-type: none"> <li>● ૧૭૦ લીટર પાણીમાં ઉપર દર્શાવેલ બધી વસ્તુઓ ઉમેરો.</li> <li>● દિવસમાં ઘડિયાલનાં કાંટાની દિશામાં બે વખત લાકડાની મદદથી હલાવવું.</li> <li>● બેરલને છાંયામાં અને ક્રેકિલુ સાખવું.</li> <li>● ૪ થી ૬ દિવસમાં જીવામૃત તૈયાર થશે.</li> </ul>	<ul style="list-style-type: none"> <li>● તૈયાર જીવામૃતને દિવસ ૫ માં ઉપયોગમાં લેવું હિતાવહ છે.</li> <li>● ૨.૫૦ વિધામાં ૨૦૦ લિટર જીવામૃત પિયત સાથે આપી શકાય.</li> <li>● ૨૧ દિવસનાં અંતરે બીજી વખત પિયત સાથે આપી શકાય.</li> </ul>	<ul style="list-style-type: none"> <li>● વાપરતાં પહેલાં ૮ કલાક સુધી હલાવવું નહીં જેથી કચરો તળીયે બેસી જશે અને નળ બ્લોક ન થાય.</li> <li>● નળ બેરલનાં તળીયાથી ૧૦ ઇંચ ઉપર સાખવો જેથી કચરો નળમાં ન આવી શકે.</li> <li>● પંપમાં અથવા ડ્રીપમાં વાપરતાં પહેલાં ગળવું ફરજીયાત છે.</li> </ul>









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Report as on June, 2024

  
Dr. Govind Vagadiya

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