

Vet Info-H

An Exclusive Newsletter on Livestock Health

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Editorial

Warm greetings to all the readers!

In this issue, the Veterinary Practice section discusses the importance of resting period in dairy animals. The Breed Profile section talks about features of Jamunapari, a goat breed well-known for commercial dairy and meat farming. The Herb Profile section enlightens on energy-boosting property of rice bran.

The Disease Update section details on negative energy balance and its causes and prevention, whereas the Research at Himalaya section features a clinical trial report on the safety and efficacy of HimShakti in the management of negative energy balance in cows. The Industry News section covers a topic on rapid decline in the population of indigenous breeds of cattle in India.

The must-visit places and must-do activities in Kerala are put together in the Travel section.

We eagerly look forward to your views and suggestions to make Vet Info-H more informative to veterinarians.

Send your valuable feedback to **publications@himalayawellness.com**

Enjoy reading!

— Editor

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The More They Rest, The More You Get



Dairy farming is one of the oldest cultural heritages of India. There are > 300 million dairy animals in our country, which is about one-fourth of total Indian human population. The point to convey is that dairy farming (from marginal to corporate) is very familiar to us Indians. And this familiarity makes us ignore the vast complexity of dairy farm management. Because of ignorance and lack of awareness, many dairy farmers are looking for a panacea (one solution for all problems) that should be in the form of a nutritional supplement. Most of the times, we even fail to realize that every improvement cannot be in the form of a nutrition supplementation. Also, it may not cost anything, but a mere attention.

One such ignored area of dairy farm management is the resting period of animals. Resting period refers to total number of hours animals lie down on the ground in a day. Many of us might be skeptical

about choosing resting period of dairy animals as even a suitable topic to write about. Hence, before delving deep into this matter, let us compare lifestyle and likings of human beings with that of dairy animals to understand the vitality of sufficient rest for dairy animals:

1. An average adult human weighs about 60 to 70 kg, while an average adult Indian dairy animal weighs about 400 to 600 kg. In other words, a dairy animal carries 7 to 10 times more weight than that of a human being. Further, the surface area of hoof can be compared with that of human's sole. Approximately, total surface area of 4 hooves is almost equal to that of 2 soles. Now imagine, how much tired we will be, if we have to stand with a weight of dairy animal, even for 1 hour.
2. We always like to sit over some soft surface with some cushion.

But when it comes to dairy animals, this is not taken care of. In most of Indian dairy farms, they are provided hard cemented flooring, which they do not like. Also, hard flooring damages their hoof, increasing the chance of lameness.

3. In human beings, standing causes discomfort and decreases working efficiency. Hence, we like to sit while working. Similarly, dairy animals should sit or rest for better utilization of feed and better milk production.
4. We prefer to rest over clean and dry surface, instead of dirty or wet surface. Dairy animals also share the same liking.
5. We feel stressed when we stand for long and when we have less than desired comfort. Dairy animals too feel stressed when they stand for long, which affects their health and production.



Science Behind Resting

A research conducted by Grant (2009) showed that additional 1 hour of resting time is associated with extra 1 to 2 more liters of milk per cow per day. More blood flow (by around 24%–28%) to udder through the external pudic artery when animals rest results in extra milk production. Insufficient rest has negative effects on their overall health and milk production.

Duration

The actual requirements of these animals and recommended practices are also worth discussing. Ideally, dairy animals should rest for approximately 13 to 14 hours per day. Naturally, they are not very active animals. This can be easily understood by looking at their feed. Major part of dairy ration comprises very low energy–dense fodders, digestion of which takes long time and extra energy. Hence, they should rest even

at the cost of giving up some time for eating. It is also proven through several researches that dairy animals exhibit stress responses (eg, bellowing, butting, and kicking), if their resting requirement is not fulfilled.

When the resting surface is not sufficiently comfortable, cows reduce their rest time. If cows are unable to lie down when needed, they stand for too long, which will change their natural behavior cycle. Also, once cows are down, they lie down for too long. Then they will take less feed and water, that is they visit the feed area less frequently and consequently consume less dry matter.

Recommendations for Rest

1. Space: With varying size of dairy animals, space requirement cannot be defined in quantitative terms. Rather, they should be provided enough space around for vertical, forward, and lateral movement without obstruction, injury, or fear.

2. Bedding: Following factors must be considered while planning bedding material:

- The surface must be durable and easily maintained
- It must be well drained and/or resilient to water
- It should not be slippery and should give secure footing to prevent potential injuries
- The flooring should be soft and comfortable rather than hard, cold, and damp
- The surface should be made of inert material to avoid the growth of pathogenic organisms

3. Bedding material: Bedding can be of organic (made of straw, sawdust, paper, and dry manure) and inorganic (made of sand, cement, and rubber mattresses). Now a days, rubber mattresses are frequently used in Indian dairy farms. Unfortunately, rubber mats are costly and also require lot of maintenance, without which can result in development of germs, pathogens, and harmful insects. For Indian dairy farms, sand is one of the best and easily available bedding materials. The surface of sand should be replaced with new material once in a month for avoiding pathogenic growth. Also, the old sand mixed with manure is a quality raw material for nurseries.





Jamunapari Goat

Source: <https://aengaeng.com/2014/11/beberapa-ciri-ciri-kambing-hamil-pertama-kali-dan-sudah-pernah-hamil/>

Jamunapari (Jamnapari) is a goat breed native to the Etawah district of Uttar Pradesh. Jamunapari is reared for its meat and milk. The breed is also popularly called as the dairy goat breed owing to the milk yielding ability. The pure breed is only found in Batpura and Chakarnagar of Etawah. Jamunapari is also found in Agra and Mathura in Uttar Pradesh, and Bhind and Morena in Madhya Pradesh.

Physical Characteristics

Jamunapari goat is generally large in size and is the tallest of the goat breeds. It has a curved nose resembling that of a parrot's mouth, which is also known as the Roman nose. It has long drooping ears, usually 8 to 12 inches in length, and long hair on the hind limbs. Both males and females have horns, and can attain a maximum weight of 125 kg and the doe of 90 kg.

Usually, a Jamunapari adult male (buck) weighs an average of about

44 to 45 kg and adult female (doe) weighs an average of 35 to 38 kg.

Reproduction

The breeding age of Jamunapari goat starts at 24 months and the breeding interval is usually 7 to 8 months.

Generally, the kid weighs between 4 and 5 kg and shows rapid growth. At the age of 6 months, it weighs about 16 kg and at 9 months about 24 kg. Jamunapari is usually considered as an adult at the age of 12 months, by when it weighs about 29 to 30 kg.

Rearing

Jamunapari goat very well suits for commercial dairy and meat farming. The best part of rearing these goats is the high kidding percentage. Farmers can multiply these goats within a short span, as an adult Jamunapari gives birth to twins or triplets at a time.

Sources:

Goat Farming. Jamunapari goat guide. <http://www.goatfarming.in/>. Accessed March 6, 2018.

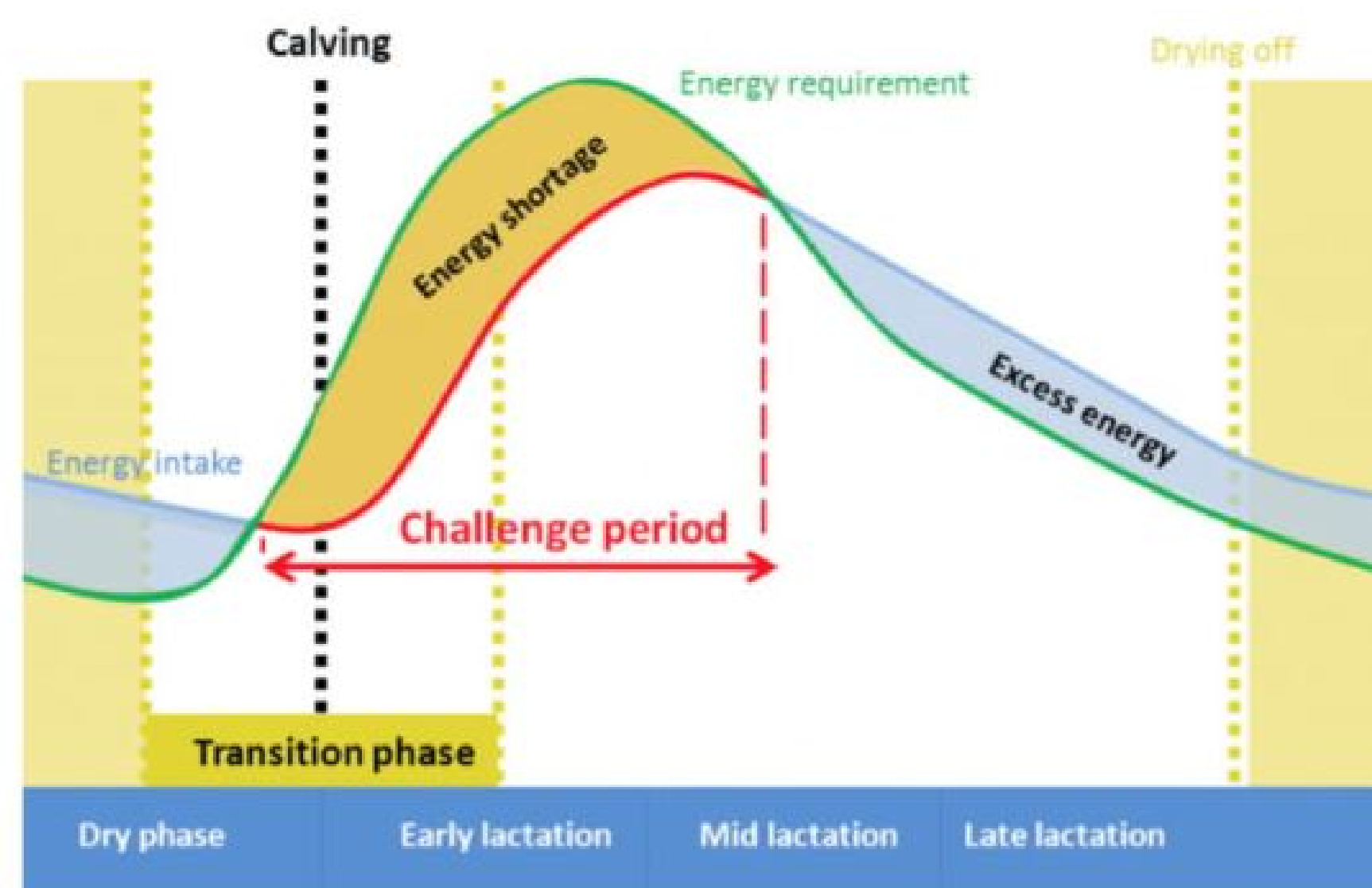
Expert Market. Jamunapari – all about Jamunapari goat breed. <http://www.expert-market.com>. Accessed March 6, 2018.



Negative Energy Balance in Dairy Animals

Introduction

Negative energy balance (NEB) refers to imbalance in energy levels, wherein the energy intake is lesser than energy loss. Transition period starts 3 weeks before calving and extends till 3 weeks after calving, during which dairy animals undergo NEB. Dairy animals undergo significant changes during transition period (eg, faster growth of the calf, start of colostrums, and strong decrease in dry matter intake), which are the causes for tremendous pressure on them.



Causes

- Transition period around calving
- Metabolic disorders such as ketosis, milk fever, and subacute ruminal acidosis (SARA)
- Prolonged debility and weakness
- Any condition or disease which may make animal anorexic for 2 days or more
- Animals in whom milk production is high but feed intake is less
- Significant reduction in dry matter intake due to heat stress
- Conditions such as severe hypoglycemia caused by Trypanosomiasis (or Surra)

Consequences

Dairy animals with NEB are at an increased risk of developing clinical or subclinical ketosis, which negatively affect dry matter intake, health, fertility, and lactation. Some of the prominent signs of subclinical ketosis are



drop in body condition score by more than 1.0 point;
reduced milk production with fat:protein ratio > 1.5;
reduced dry matter intake, especially concentrate feeding;
and reduced fertility.

Management and Nutritional Approaches

1. **Periparturient period care and management:** Generally, the NEB peaks on the first and second days of calving. Administering a combination of instant and sustained energy supplements 24 hours before calving up to 5 days after calving helps minimize the energy deficit gap and improve lactation.
2. **Increased energy intake to improve energy balance:** Excessive mobilization of body fat in the first 4 weeks of lactation should be prevented. Feeding management that maximizes dry matter intake is also essential to minimize loss of body condition and to reinstate ovarian cycles within approximately 3 weeks after calving to improve fertility.



To Evaluate the Efficacy of HimShakti™ in Postcalving Dairy Cows

Manu K

Data on file.



Introduction

HimShakti, from The Himalaya Drug Company, prevents negative energy balance and provides instant energy to cows. It also helps increase the milk production by providing sustained release of energy. It is especially useful in postcalving dairy cows because it helps improve body conditions and appetite without adverse effects.

Objective

To evaluate the safety and efficacy of HimShakti in postcalving dairy cows

Materials and Methods

A study was conducted around Nelamangala (Bengaluru, Karnataka, India) during April to June 2016 in 15 postcalving cows (13 healthy crossbred Holstein Friesian cows and 2 healthy crossbred jersey cows). These 15 postcalving cows were administered 100 mL HimShakti by either drenching or mixing with the concentrate feed twice a day for 5 days. The same cows were used as controls during the presupplement period, supplement period (5 days), and postsupplement period. Roughages such as maize, straw of ragi and paddy, green fodder, and commercial feed concentrate were fed to the study

Table. The Scores of Various Parameters After HimShakti Supplementation

Parameter	Excellent	Good	Fair	Satisfactory	No Effect
Boost Energy	14 (93.33%)	1 (6.67%)	—	—	—
Activeness	5 (33.33%)	10 (66.7%)	—	—	—
Alertness	2 (13.33%)	13 (86.67%)	—	—	—
Prevention of Ketosis	14 (93.33%)	1 (6.67%)	—	—	—

cows. The cows were monitored for daily appetite, consistency of dung production, and ruminal motility. The body conditions of cows before and after giving the supplement were also noted.

The efficacy of HimShakti was assessed using rumen motility, dung consistency, appetite, energy, activeness, alertness, and ketosis before, during, and after the administration of HimShakti. The safety of the product was assessed based on the adverse reactions such as acidosis, diarrhea, and inappetence that occurred during the study period.

Results

There were no signs of ketosis or milk fever during and after the supplement period. There was improvement in physical activity and alertness

in study cows. The scores of other parameters are given in the Table.

Conclusion

HimShakti is safe and effective in postcalving dairy cows because it helps improve appetite, boost the energy, and improve the body conditions without adverse effects such as acidosis, indigestion, and diarrhea during and after supplementation period.

Explore Kerala

Best Time To Visit

Monsoon season between June and August is one of the best times to visit Kerala to experience eye-catching greenery throughout. The wet and cold climate during monsoon is also ideal for Ayurveda treatments and rejuvenation programs. Tourists mostly visit during winter (October to early March) as the weather will be very pleasant and comfortable. It is better to avoid visiting during summer (late March to May) because of hot and humid weather.



Backwaters



Popularly called the “God’s Own Country,” Kerala enjoys unique geographical features that have made it one of the most sought-after tourist destinations in Asia. With the Arabian Sea in the West, the Western Ghats towering 500 to 2700 m in the East, and networked by 44 rivers, Kerala is gifted with equable and serene climate. Kerala is blessed with enchanting art forms (eg, Mudi yettu, Kathakali, and Koodiyattam), joyous festivals (eg, onam and vishu), and luscious cuisines, all of which offer a unique experience.

Following are some of the most beautiful places to explore in Kerala:

How to Reach

By Air

Three airports in the state, Thiruvananthapuram International Airport, Thiruvananthapuram; Cochin Airport, Kochi; and Karipur Airport, Kozhikode, connect Kerala with the rest of the country.

By Train

The train services of Kerala link the state to all the important cities of India, including 4 metropolitan cities—New Delhi, Mumbai, Kolkata, and Chennai.

By Road

Kerala is directly connected by road to both Karnataka and Tamil Nadu. National Highways 47, 17, and 49 and an extensive system of metalled roads connect Kerala to the rest of the country. Buses and tourist taxis are the main modes of road transport.

Backwaters

Backwaters are a part of the river not reached by the current and the water is stagnant. The backwaters of Kerala are marked by a unique ecosystem, wherein lagoons, lakes, canals, estuaries, and deltas of several rivers meet the Arabian Sea. One can cruise through the backwaters in houseboats called “Kettuvallam.”

Alappuzha has a large network of inland canals, and the backwaters are a great tourist attraction. One-night cruise on the backwaters is very popular here and takes you through Punnamada Lake, Vembanad Lake, and several interesting places around.

Beaches

Clean sand bound by incessant rows of palm trees is a unique feature of beaches in Kerala. Famous for its shallow waters and low tidal waves,

Kovalam, Thiruvananthapuram, has 3 beaches—Lighthouse Beach, Hawah Beach, and Samudra Beach—separated by rocky outcroppings in its 17-km coastline.

Forts and Palaces

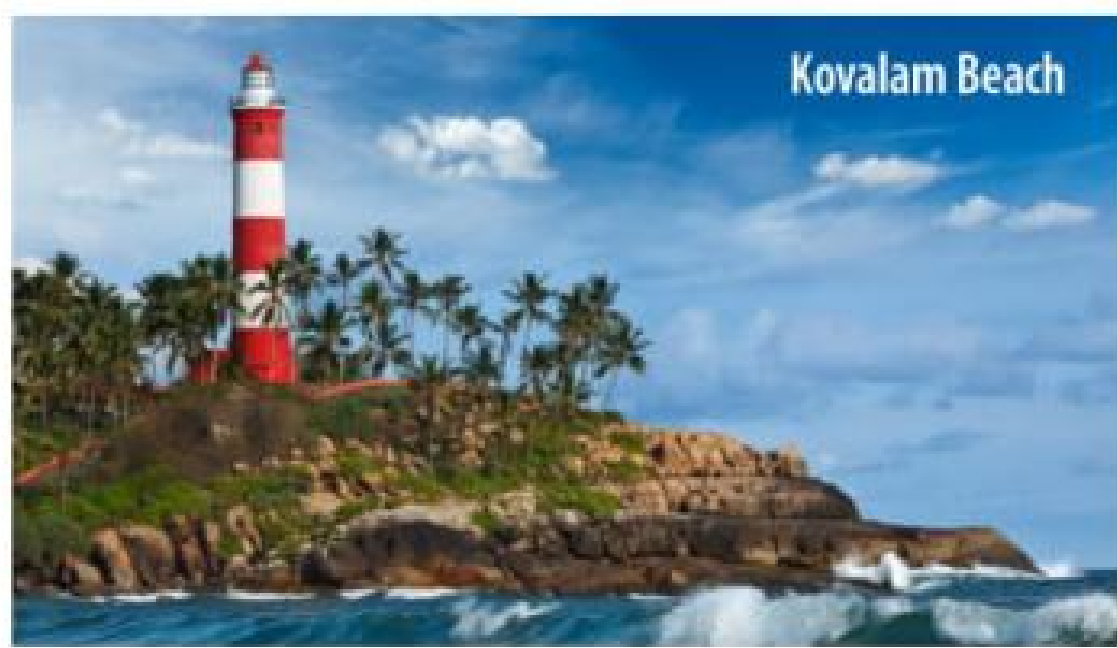
Kerala has a rich treasure of historical forts and palaces reflecting the bygone eras and influence of different cultures. One of the largest preserved forts in Kasargod district, Bekal Fort is unique because of its keyhole-shaped structure.

Bolgatty Palace, a modern European-styled palace in Bolgatty Island, Kochi, was built by the Dutch as a summerhouse. Today, it has been converted into a resort.

Hill Stations

Kerala is well-known for its hill stations that are abodes of rich flora





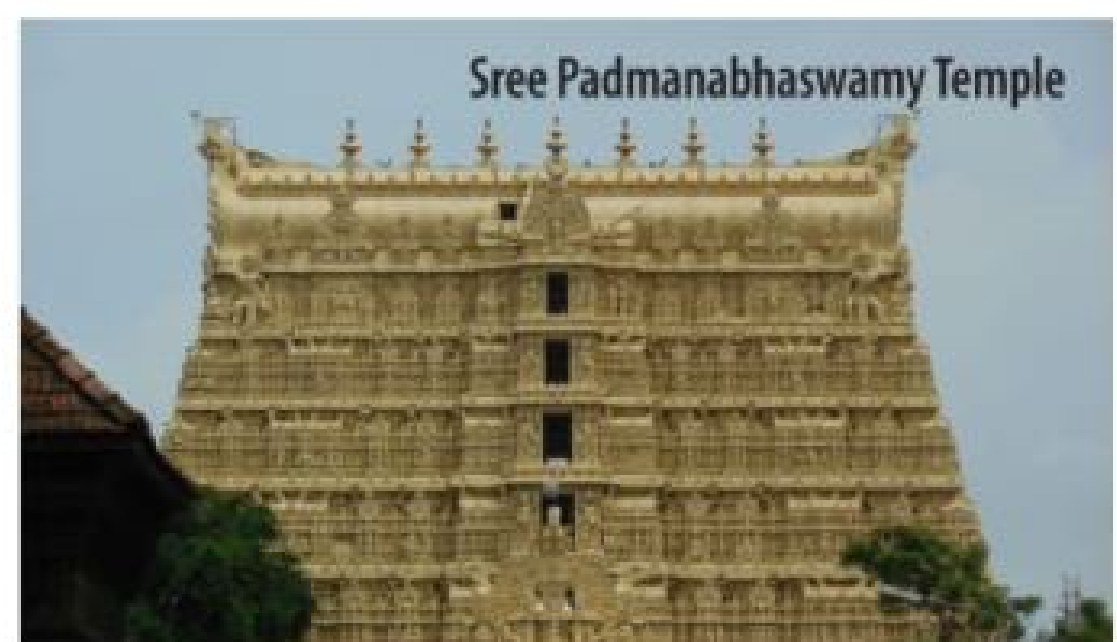
Kovalam Beach



Bekal Fort



Munnar



Sree Padmanabhaswamy Temple



St. Thomas Church



Periyar Wildlife Sanctuary



Kasavu Mundu

and fauna. Munnar is supposedly the most-traveled adventure tour destination of Kerala, because of the terrains and landscapes of the area. Anamudi, the tallest peak of south India (height, 2695 m), is the best place for trekking in Munnar. Munnar is situated at the convergence of 3 mountain streams—Mudrapuzha, Nallathanni, and Kundala.

Religious Sites

Kerala is a home for many pilgrimage centers of various religions and communities, which pictures the secular coexistence and religious harmony in this land. Sree Padmanabhaswamy Temple in Thiruvananthapuram is dedicated to Lord Vishnu. The temple has a blend of Kerala and Dravidian styles of architecture.

Situated atop the Malayattoor Hills, Malayattoor Church is dedicated to St. Thomas, the apostle of Jesus Christ. Permanent footprints and the marks of knees of St. Thomas imprinted on the rock are very significant here.

Wildlife Sanctuaries

Kerala has numerous wildlife sanctuaries, making it a habitat for a number of rare and common species of flora and fauna. Located in Thekkady, Periyar wildlife sanctuary is spread over an area of 777 km²; the sanctuary is 1 of the 27 tiger reserves in India.

Museums

Hill Palace Museum is the largest archeological museum in Kerala. Located at Thripunithura, Kochi, the museum is noted for royal collections

of the erstwhile Maharaja of Kochi. Several ancient murals, oil paintings, stone artifacts and coins, manuscripts, and sculptures belonging to the Kochi Royal Family are displayed here.



Spices of Kerala



Meen Mappas



Idiyappam



Puttu

Must-Tries

- Boating in Backwaters
- Elephant Bathing in Kodanad
- Houseboat in Alleppey
- Shikara Rides in Alappuzha
- Spice Garden Tour
- Coffee Plantation Visit in Wayanad
- Watch Theyyam
- Sunset at Kovalam Beach

Must-Buys

- Kasavu Mundu and Kasavu Neryathu (Traditional Wears of Kerala)
- Aranmula Kannadi
- Bronze Wares
- Jewelry
- Cashew
- Spices
- Ramacham Artifacts

Must-Eats

- Appam
- Idiyappam
- Puttu
- Kozhippidi
- Meen Mappas
- Avial
- Kozhikodan Halwa
- Unnakaya

Oryza sativa

Rice is one of the major cereal crops in Asia. The major by-products of rice, such as rice polish and rice bran produced during milling process, are extensively used in India for feeding livestock. Rice bran is a good source of energy, proteins, vitamins, and minerals. It is also rich in amino acids such as lysine and methionine compared with maize and wheat.¹

A study evaluated the effects of a supplement containing whole rice bran and crude glycerin, which was given for 21 days before mating, on metabolic and productive responses of primiparous suckling beef cows. Supplementation of the mixture improved energy balance and increased plasma cholesterol concentration, milk yield, and milk protein content.²

Another study was conducted to evaluate if brown rice grain can be a good replacement for corn grain in dairy cow diet. Results



Sanskrit name	Dhanya
English name	Rice

of the study showed that brown rice has similar effect as corn grain on digestibility, milk production, milk composition, feed efficiency, energy balance, and blood chemistry profile, indicating that brown rice grain is a good alternative energy feed for dairy cows.³

References

1. Animal Nutrition Group, National Dairy Development Board. Nutritive value of commonly available feeds and fodders in India. <http://www.nddb.org/sites/default/files/pdfs/Animal-Nutrition-booklet.pdf>. Accessed April 3, 2018.
2. Clariget JM, et al. *R Bras Zootec*. 2016;45(1):16–25.
3. Scheibler RB, et al. *Anim Feed Sci Technol*. 2015;208:214–219.

Oryza sativa is an ingredient of **HimShakti**

I regularly prescribe **HimShakti** because it helps cows recover fast from negative energy balance and maintain energy level for a long time. **HimShakti** contains vitamin E that helps improve immunity in dairy animals.

Dr Sagar Kasbe

Livestock Development Officer
Kajgaon, Jalgaon
Maharashtra

HimShakti is my first choice whenever there is a case of energy deficiency, because it gives instant and sustained energy to animals. I trust **HimShakti** for its efficacy.

Dr Arif Shah

Veterinary Assistant Surgeon
Kishtwar
Jammu

I have been prescribing Himalaya's **HimShakti** as an energy booster for dairy animals. I am happy and satisfied with Himalaya's veterinary products.

Dr Roy

Panvel, Mumbai
Maharashtra

I regularly prescribe **HimShakti**, as it is very effective in boosting the energy levels in dairy animals. I have been prescribing the product from past 2 years.

Dr Prasad

Veterinary Officer
Jamshedpur, Jharkhand

Upcoming Events

DairyTech India 2018, 8th Edition

Date: August 31 to September 2, 2018

Venue: Bengaluru, Karnataka, India

For more details, log on to: <http://dairytechindia.in/>

POULTRY FEST 2018, 7th Edition

Date: October 24 to 26, 2018

Venue: Lucknow, Uttar Pradesh, India

For more details, log on to:
<http://www.poultryfest.in/>

NGT Quizzes Government Over Decline in Cattle Population



The Ministry of Agriculture was directed by the National Green Tribunal (NGT) to file an affidavit stating the details of minutes of a meeting that was organized to draft a national policy to prevent the “rapid decline” in the population of indigenous breeds of cattle across the country.

Justice UD Salvi, the acting chairperson, headed the bench and asked to place on record the views of other stakeholders along with all the material concerned within 2 weeks.

During the hearing, advocate Sumeer Sodhi, the counsel for petitioner Ashwini Kumar, said that the applicant, who was allowed to attend the meeting by the NGT, did not participate in it, therefore, he would submit the response on the livestock policy.

The NGT had earlier directed the governments of Arunachal Pradesh, Jharkhand, Assam, Karnataka, Goa, Meghalaya, Mizoram, Sikkim, West Bengal, and Jammu and

Kashmir to participate in the meeting to frame the policy.

The NGT had noted that in Kerala from 2003 to 2012, there was nearly an 80% decline in the animal population and claimed such a situation might lead to extinction of the species in the state.

The NGT was hearing an appeal against the “threatening extinction of indigenous breeds of cattle” in the country. It had issued a notice to the Ministry of Agriculture on the petition, which has also sought a nationwide ban on slaughter of indigenous cattle breeds.

The NGT has said that exotic and crossbred cows imported from Europe, Australia, and the United States are replacing the Indian varieties of cattle.

Source:

NGT quizzes govt over decline in cattle population.
The Economic Times. December 20, 2017.
<https://economictimes.indiatimes.com/>.
 Accessed March 7, 2018.

Q: What happens to a frog's car when it breaks down?

A: It gets toad away!

...

Q: Can a kangaroo jump higher than the Empire State Building?

A: Of course. The Empire State Building can't jump!

...

Q: Why did the witches' team lose the baseball game?

A: Their bats flew away!

...

Q: Why couldn't the leopard play hide and seek?

A: Because he was always spotted!

...

Q: What did the spider do on the computer?

A: Made a Web site!

...

Q: What do you get from a pampered cow?

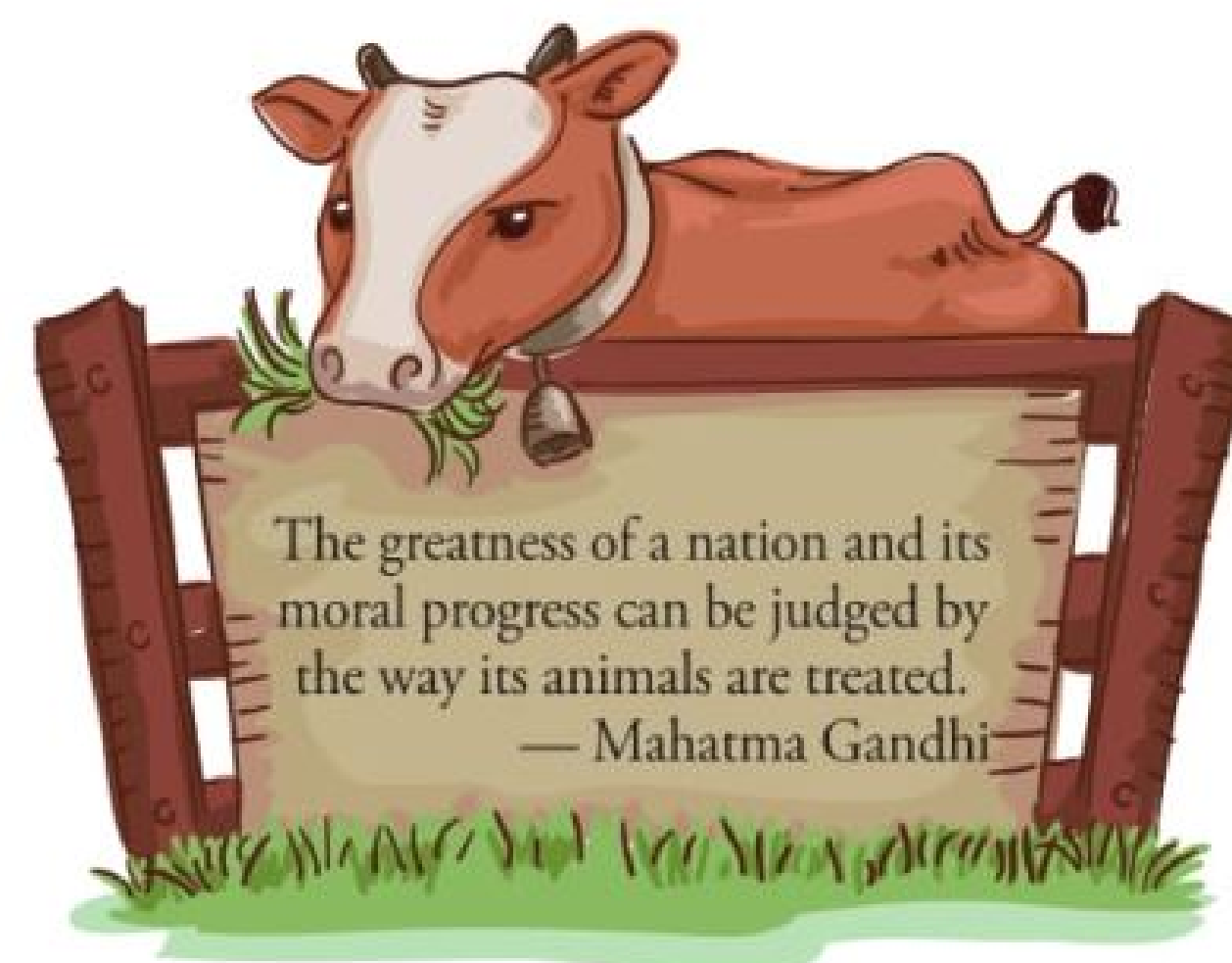
A: Spoiled milk!

...

It was a baby mosquito's first day to fly out from home. When the mosquito came back home later in the day, the father mosquito asked, "How was your journey?" The baby mosquito replied, "It went great. Everyone was clapping for me!"

...

Vet Quote



HimShaktiTM

(SUSPENSION)

Instant & sustained energy supplement



Directions for use

Cattle & Buffaloes:

100-200 ml per animal per day to be administered orally or in feed

Presentation:
500 ml, & 1 ltr.



TM Trademark