



Cow Universe



From the Editor's desk:

Index

Voice of Guru -----i

The GUT Fuelling -----1

Cow insight Sitamari-----2

Truth about DOODH -----4

VOICE of the GURU:

On the Judgment day a Brahmin was questioned by Yama, the God of Death, "Why did you commit the sin of killing a cow even when you knew that such a sin will guarantee you a stay at the hell?" The clever Brahmin replied "Oh! Lord. I killed no cow. Without the Great Lord not an atom moves. Lord is the reason and the cause behind everything. The doer and the done are but Him. Scriptures say that man is a mere tool. So Lord Himself was the killer and not me." Yama, understood the cunning ploy the Brahmin was resorting to by taking help from the scriptures to justify his deed and decided to teach him a lesson.



He took the Brahmin back to earth and pointing at his house, asked him "Who built this house?" The Brahmin immediately replied "I built it". Then Yama looked over a beautiful pond beside and asked, "Who is the creator of this one?" The Brahmin's chest swelled with pride and he answered "It's the daughter of my imagination", "And how about that garden filled with flowers and fruits?" Yama inquired. Such praise drove the Brahmin out of his senses and pat came the reply "I am the cause and the reason". Pointing at the dead cow Yama asked in a serious tone "Now tell me, who killed this Cow?" The Brahmin couldn't utter a word. Yama continued "Even if Lord is the cause and you are a mere tool through which the act occurred, is it not right to punish Lord through the tool?" The Brahmin had no answers and accepted the punishment.

When good things happen, everyone wants a pie of the praise. When bad things happen, people accuse the Lord. That is when our mind finds a thousand ways to point fingers at others. Good or bad, whatever we are experiencing today is only a result of our own previous deeds is the essence of our philosophy. It is one crime to wrong and another to hold someone else responsible for it.

You shall eat the food you cooked
You shall eat the fruit that your tree bears
The thorn that you grew will lie below your feet
And the sins you accumulate is for your own generations.

Courtesy : Kannada Prabha

- His Holiness Shri Shri Raaghaveshwara Bharathee Mahaswamiji.

The GUT Fuelling

Published in Bangalore Mirror, April 10th, 2008.

What does the cow have to do with the global oil crisis? Well, it may help ease it! An enzyme from a microbe that resides deep in a cow's gut holds the key to converting corn into a cheap biofuel like ethanol, a new study in the US has found.

The enzyme, which allows a cow to digest grasses and other plants, can be used to turn other plant fibres into simple sugars. These simple sugars can be used to produce ethanol to power cars and trucks, said researchers from the US-based Michigan State University, who conducted the study.

Traditionally, only the kernel of corn plants have been used to make ethanol, but the new discovery will allow the entire corn plant to be used, so more fuel can be produced at far lower cost.

The researchers, led by Mariam Sticklen, inserted the enzyme from a bacterium in the cow's gut into a corn plant, triggering the ethanol-making process without having to use extremely expensive synthetic chemicals.

Sticklen and her colleagues presented their findings at the American Chemical Society meeting Wednesday. The study will also appear in the June edition of the journal Nature Review Genetics.

How they did it...

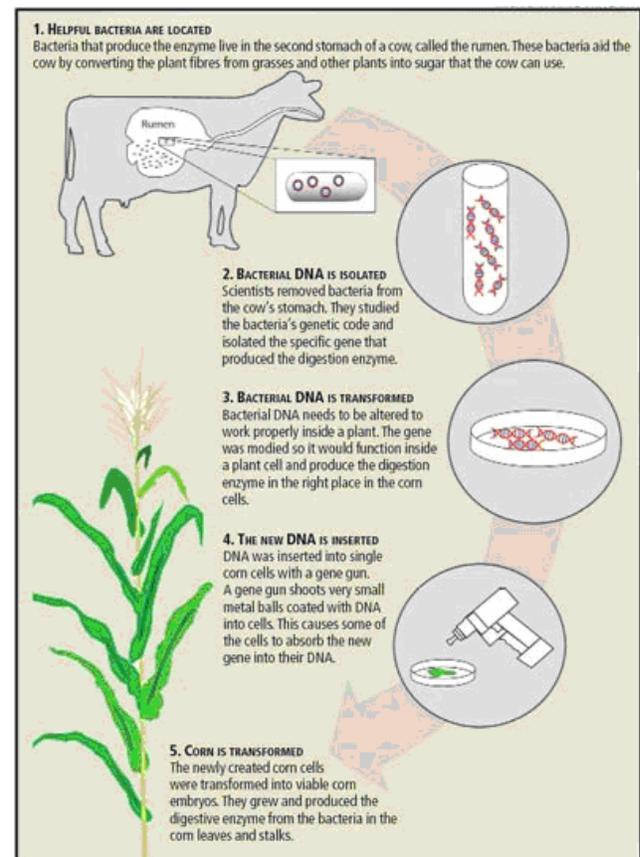
Turning plant fibres into sugar requires three enzymes. The new variety of corn created for biofuel production, called Spartan Corn III, builds on Sticklen's earlier corn versions by containing all three necessary enzymes.

The first version, released in 2007, cuts the cellulose into large pieces with an enzyme that came from a microbe that lives in hot spring water.

Spartan Corn II, with a gene from a naturally occurring fungus, takes the large cellulose pieces created by the first enzyme and breaks them into sugar pairs.

Spartan Corn III, with the gene from a microbe in a cow, produces an enzyme that separates pairs of sugar molecules into simple sugars. These single sugars are readily fermentable into ethanol, meaning that when the cellulose is in simple sugars, it can be fermented to make ethanol.

"It will save money in ethanol production," Sticklen said. "Without it, they can't convert the waste into ethanol without buying enzymes – which is expensive."



Cow insight - SITAMARHI

ORIGIN AND DISTRIBUTION

This breed was found in Sitamarhi and some parts of Madhubani, Darbhanga, Samastipur and Muzaffarpur districts of Bihar but a recent survey has revealed that the original breeding has shrunk and the Bachaur cattle are now concentrated in the areas adjoining Nepal border comprising Bachaur and Koilpur subdivisions of Sitamarhi district. It is known for its draught qualities and ability to thrive on poor fodder resources. This breed has very close similarity to Hariana breed. A pair of bullocks fetches around Rs. 5,000 to 35,000.

LOCATION AND TOPOGRAPHY

The breeding tract is situated in north-central part of Bihar, lying approximately between 260 and 26061 north latitude and 850 and 85061 east longitude.

SOIL

The area consists of low-lying alluvial plain traversed at intervals by ridges of high ground. Beds of nodular limestone are occasionally found in tract. Major portion of the area is fertile with high cropping intensity.

CLIMATE

The climate of the area is hot and humid. Maximum temperature in summer is about 45°C and in winter about 21°C; Minimum temperature during winter is about 9°C. Average rainfall from 66 to 90 %.

Paddy, barely, wheat, chickpea, mustard, lentils and sugarcane are the most important crops.

No special fodder crops are grown in the area for cattle except *Lathyrus sativus* in paddy fields and mustard sown with high seed rate as a winter crop and then gradually thinned and used as green fodder.

MANAGEMENT PRACTICES

The Bachaur breed is maintained by the Koir and Ahir communities. Majority of them have few animals but a few have large herds. Cattle are grazed in the nearby grassland area. Cow having male calf is not milked at all and calf is allowed to take all the milk. Males are castrated at the time of eruption of horns, i.e. at about 1 to 1 1/2 years of age.

The males produced in the village area are valuable and traded every day in small 'Hatia' being arranged privately or by the government. These practices are being followed for many countries. Small and marginal farmers buy Bachaur bullocks from these trade centers for various agricultural operations.

PHYSICAL CHARACTERISTICS

The cattle are of grey colour, compact with straight back, well-rounded barrel, short neck and muscular shoulders. Muzzle is either black or brown. Eyelids are black for animals having black muzzle and white for animals having brown muzzle. Face is short, forehead broad and flat or slightly convex.

Poll is almost absent. Eyes are large and prominent. Horns are medium sized, stumpy, curving outward and upward. Ears are small and drooping. Hump is compact, firm and medium sized. Legs are short and thin, sheath and navel flap are light and close to the body. Dewlap is medium sized. Tail is short and thick, usually does not go far beyond the hock. Tail switch is either black or white. Udder is small, trough shaped with cylindrical teats having rounded tips. Colour of skin is black.

MORPHOMETRIC AND PERFORMANCE PARAMETERS

Length of bull is around 110-120 cm, height 110-125 cm and heart girth 140-170cm. Length, height and heart girth of females are around 95-115, 100-120 and 135-165 cm respectively. Adult body weight is around 385 kg in males and 318 kg in females. Average age at first calving is 1,453.24 \pm 21.75 days. Cows are poor milkers and produce around 540 kg of milk (range 495 to 605 kg) in a lactation of 254.34 \pm 2.49 days. Average calving interval is 487.8 \pm 5.92 days. Bullocks can work for about 8 hours without any break.

BREEDING FARMS

The Bachaur Cattle Breeding Farm, Pusa, Bihar

CONTACT AGENCIES

State animal Husbandry Department, Bihar

The Truth about DOODH ?

Published in Bangalore mirror on April 14 2008

Is it time to cry over milk split into your stomach?
Maybe, and here's why.

Milk is white, milk is might, it gives you sight, it makes you write, milk is good, milk is fun, milk you must have day and night. Nice sonnet, but could be one heck of a white lie! Well, you're not going to believe what you're about to read – here're the udder fact about milk:

With India's population increasing with every clock tick, the demand for milk never has had it so good. The dairy business and their farmer suppliers have begun experiencing the greens in the milk, and there's no stopping them. Even the unofficial Prime Minister of the Indian Corporate World, Mukesh Ambani, has decided to pump in a few thousand crores into the dairy business. Milk processing units tie up with farmers for their daily supply of milk and farmers want to rake in as much as they can in the shortest time and, in the process, here are some nasty measures they take that may have put us in a very dangerous situation.

Farmers with medieval mentalities use futuristic methods to milk the maximum from their cows. Instead of allowing their cows to remain on a diet of fresh green grass, the farmers feed them with high-protection foods, which are not well accepted by the bovine system. Next, modern breeding methods adopted by the farmers have steroid like effects on cows' pituitary glands. As a result, the cows udders become unduly large and produce three times more milk than nature intended, making the cow prone to regular infections. To fight this, the cows are routinely injected with high doses of antibiotics, which also find their way into our milk. Farmers' pump their cows with all kinds of systematic stuff that freak out the cows' udders and milk producing capacity. The result is that today's cow milk contains about 59 hormones, one of which is called the IGF-1 (Insulin-like Growth factor one). Now, here's shocker IGF-1 is known to stoke many forms of cancer, especially of the breast, prostate and colon! So, does our Indian package milk contain enough IGF-1 to cause havoc in our system? I really don't know-only a test followed by a medical opinion can tell for sure. The government should help milk drinkers by analyzing package milk content and giving them an unbiased opinion.

Then, this must be followed up by clamping a ban on feeding un natural growth hormones to cows as some European nations have done.

Are you under the impression that the package milk you consume is all cows milk? It is n't-packaged milk is basically a suspension of proteins in water! And, 80-90% of package whole milk is water! Do you know that just one cubic centimeter of commercial milk can have up to 750,000 pus cells and 20,000 live bacteria? If you don't believe me take your packaged milk to a quality chemical laboratory and have it analyzed these ingredients can play black magic with the body and can lead on to cause many medical conditions.

There's also that cruelty factor involved in the manufacture of milk but I won't mention it out here as it may get this article an XXX – rating. For people live on butter, cheese and ice cream, here is some thing they can chew on- whatever a sip of milk contains, a bite of cheese contains 10 times more, a spoon of ice-cream 12 time more and a spread of butter 21 time more fat and other content!

So, what is the impact of milk on humans? The medical community is divided – the guys who condemn milk say it causes cancer, allergies, heart disease, obesity, digestive problems, ovarian cysts, infections, asthma and behavioral problems. On a logical note, why don't we spend a minute to think about milk? Once upon a time cows used to produce 4 liters of milk daily; today, they produced 25-40 liters a day. Surely, something unnatural must have happened to them for them to turn into Kamdhenus overnight!

It is this unnatural stuff that is playing around with our health – in fact, I wish some NGOs would analyze milk-they have analyzed enough colas already! You can never underestimate human greed – I have no doubt in my mind that most farmers have pumped up their cows with synthetic substances have put us in a dangerous position. It is time for our government to act and check on the milk business and ensure that we get a product that boosts our health rather than ruin it. If they don't, its time to one ride on the Milky way through hell.

Sunil_tinani@yahoo.com