

## The REAL potential of cows milk

### *A holistic approach*

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## Definition of milk

- a fluid secreted by the mammary glands of female mammals for the nourishment of their young
- “A healthy mother will have sufficient milk for its baby”

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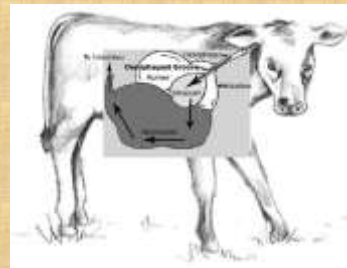
## Milk Composition

SPECIES	FAT %	PROTEIN %	LACTOSE %	ASH %	TOTAL SOLIDS %
Buffalo	10.4	5.9	4.3	0.8	21.5
Human	4.5	1.1	6.8	0.2	12.6
Cow	4.9	3.9	5.1	.8	14.7
Ass (donkey)	1.2	1.7	6.9	0.45	10.2
Elephant	15.1	4.9	3.4	0.76	26.9

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## Milk goes straight to stomach



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## Milk goes straight to stomach



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## Food passes through all 4 chambers



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## What is the growth potential of cow's milk?

Or

What is the daily weight gain of a calf  
drinking milk ?

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## What is the calf's share ?

- It is that quantity of milk which when consumed by the calf it attains the optimum growth.
- The optimum weight gain is = or  $>1$  kg/day
- This is best achieved by calf and cow being together for a minimum of 12 hrs
- The calf will become 10 times its body weight in 7-8 months
- Studies show that such calves give 10% more than their mothers

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### Separated and starved



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### Hairy skin a sign of malnourishment



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### To be housed in clean and dry environment



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### Malnourished calves



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## Norwegian Veterinary Institute

- As a consequence of denying their share of milk, calves get sick, grow poorly and eventually become poorer milk Producers.
- “Several studies have shown that calves that drink as much as they wish are
  - healthier, require fewer visits from vets,
  - produce ten percent more milk as adults and
  - show more rapid growth (1.3 kg/day) than calves forced to follow the recommended feeding regimen ( 0.5kg/day).

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## Norwegian Veterinary Institute

- “The calf puts on more weight daily when its mother is allowed to suckle it. This is a strong indication of animal well-being,”
- Calves that spent half the time with their mothers also put on more weight afterward than calves that had been together with the mother cow night and day,”
- In any case, the researchers hope the new study will alter standard practice and that the text books will be revised

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## Recommendation

- Milk the cows only once a day preferably in the morning 5 am
- Allow the calves to be with their mothers till 5 pm to drink their share of milk
- You may now separate the calf from the mother to milk her early morning
- Any system of milking you follow should exhibit the growth potential of the milk in the calf (Daily weight gain >1 kg)

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## Before : crying for milk



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### Obedient and peaceful Wt Gain 1.1-1.7kg/day



### Comparison



### Milk starved calves



### Magic of milk after 3 months



Before 1 time milking in Ahmadabad



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After 1 month of being with their mothers 12 hrs a day



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Comparison of calves of the same age group

January 2015-Scarse milk

September 2016-Given share of milk



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In an organic farm, the social life of the cows and calves is given high priority.



Being with the mother means more than just access to milk

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## Same breed Deoni different management Age at first calving

**NDRI 3.5 years**

**ISKCON Belgaum -2 years**



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## Undernourished young stock in Veterinary college, Kerala



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## Milk as it is

- Generally, milk is said to have the best properties immediately after taking from the cow's udder.
- This milk, which is slightly warm, is especially good for bringing down the increased vAta. Thus it is said that warm fresh milk is the equivalent of nectar ( Amrith ).

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## But The milk we get is

- Boiled milk
- Boiled pasteurised, toned milk
- Boiled, pasteurised, standardised milk
- Boiled pasteurised, Toned/standardised, homogenised milk
- Boiled pasteurised skimmed milk



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## Herds maintained for wages

- When a cow herd fed by wages graze milch cows in hundreds, for if they graze the herds for the profit of milk and ghee, **they will starve the calves to death.**
  - Kautilya's Arthashastra :Book 2,chapter XXIX

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## Artha sastra 2 – 29 – 32

- *Cows and she buffaloes should be milked twice during rainy season and winter but only once during summer* . If anybody milks twice then his thumb should be cut-off.

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## Rig veda 10.87.18 Atharva veda 8.3.16

- Milk derived forcibly from cows is poisonous and leads to innumerable incurable diseases

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## Forcible milking



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## Milking limits per day - Brhatparasara

### A. 5-8

- Cow milking should be done only once in a day in the morning. If milking is done twice a day, the calves loose their health and will not grow.

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## Milking is forbidden on special occasions- Br. Parasara . A. 5 – 16,17

- Milking should not be done of the cows whose calf is dead, or which is pregnant. Cow should not be milked for ten days after her delivery. Also those cows which are weak or suffer from diseases or have delivered two calves at a time should never be milked.

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## Weaning

- Accustom (an infant or other young mammal) to food other than its mother's milk.
- It is a natural process to replenish the health of the mother.
- Time to wean is decided as per the health of the mother.

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## Manusmriti Chapter 5

- अनिर्दशया गोः क्षीरमौष्टमैकशफं तथा ।  
आविकं सन्धिनीक्षीरं विवत्सायाश्च गोः पयः ॥ ८ ॥
- *anirdaśāyā goḥ kṣīramauṣṭramaikaśaphaṁ  
tathā |  
āvikaṁ sandhinīkṣīraṁ vivatsāyāśca goḥ  
payaḥ || 8 ||*
- The milk of the cow that has not passed its ten days, as also that of the camel and of one-hoofed animals and of sheep; the milk of the cow in heat, as also the milk of the cow without her calf.—(8)

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## Definition of Ahimsa milk

- *Ahimsa milk is*
  - *slaughter - free.*
  - *No cows or bulls were either killed or exploited to produce it.*

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## Few of the Exploitations

- No grazing
- Forcible drawing of milk
- Feeding cows in Sauchalayas
- Housing cows in Sauchalayas
- Stealing the share of milk of the calf
- Castration of Bulls

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## The conscious role of city consumers

- Urban eaters should become essential partners in restoring intention to farming.
- Every time you eat you connect yourself to a rural place
- Food buyers drive the decisions farmers make about what practices to be put in place
- The water farmer uses to irrigate is the same water that will end up in the wells from which city people drink and vice versa
- The air farmers purify or pollute is the same city people breathe and vice versa.

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## The milk you consume should be free from

- Milk of pregnant cows,
- Milk of cows in heat,
- Milk of diseased cows,
- Calf's share of milk,
- Milk of cows within 21 days of calving,
- Milk of underfed cows,
- Milk of stall fed cows.

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