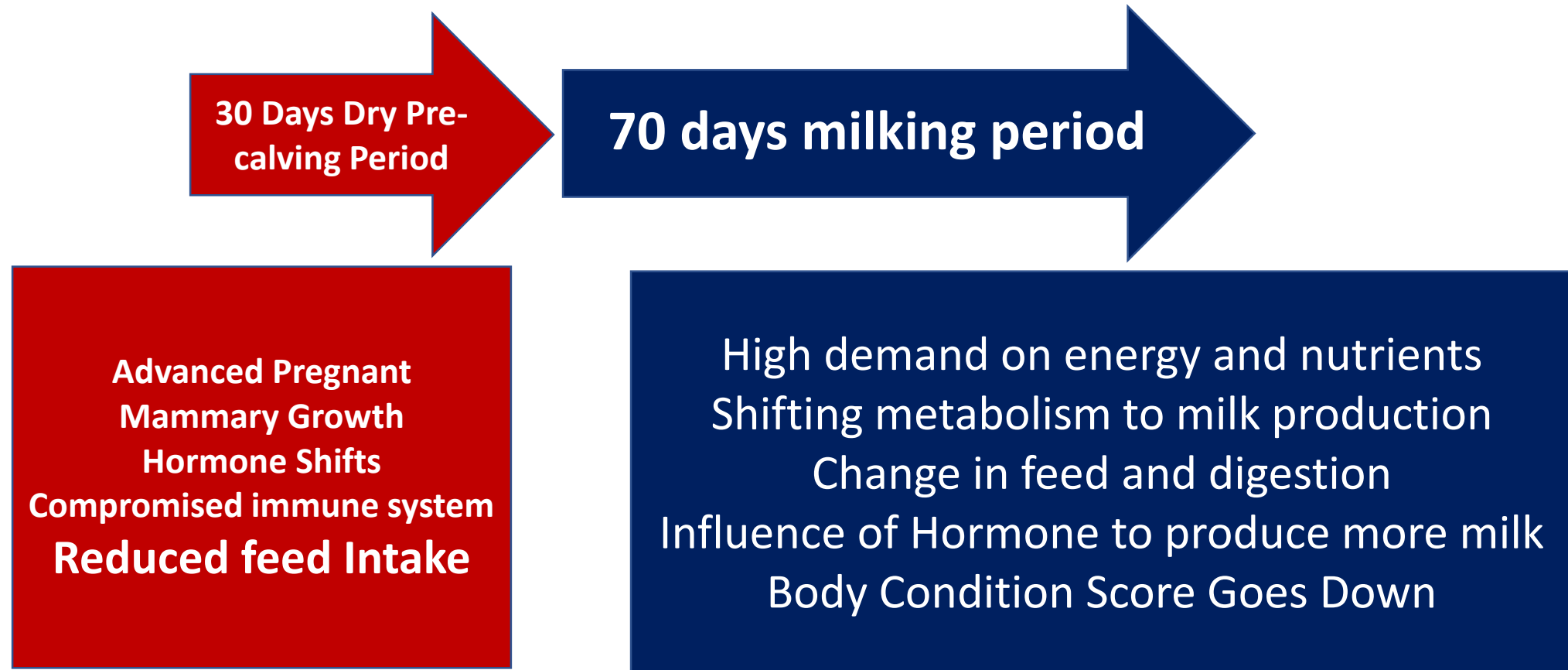


100 Days Contract With Cow

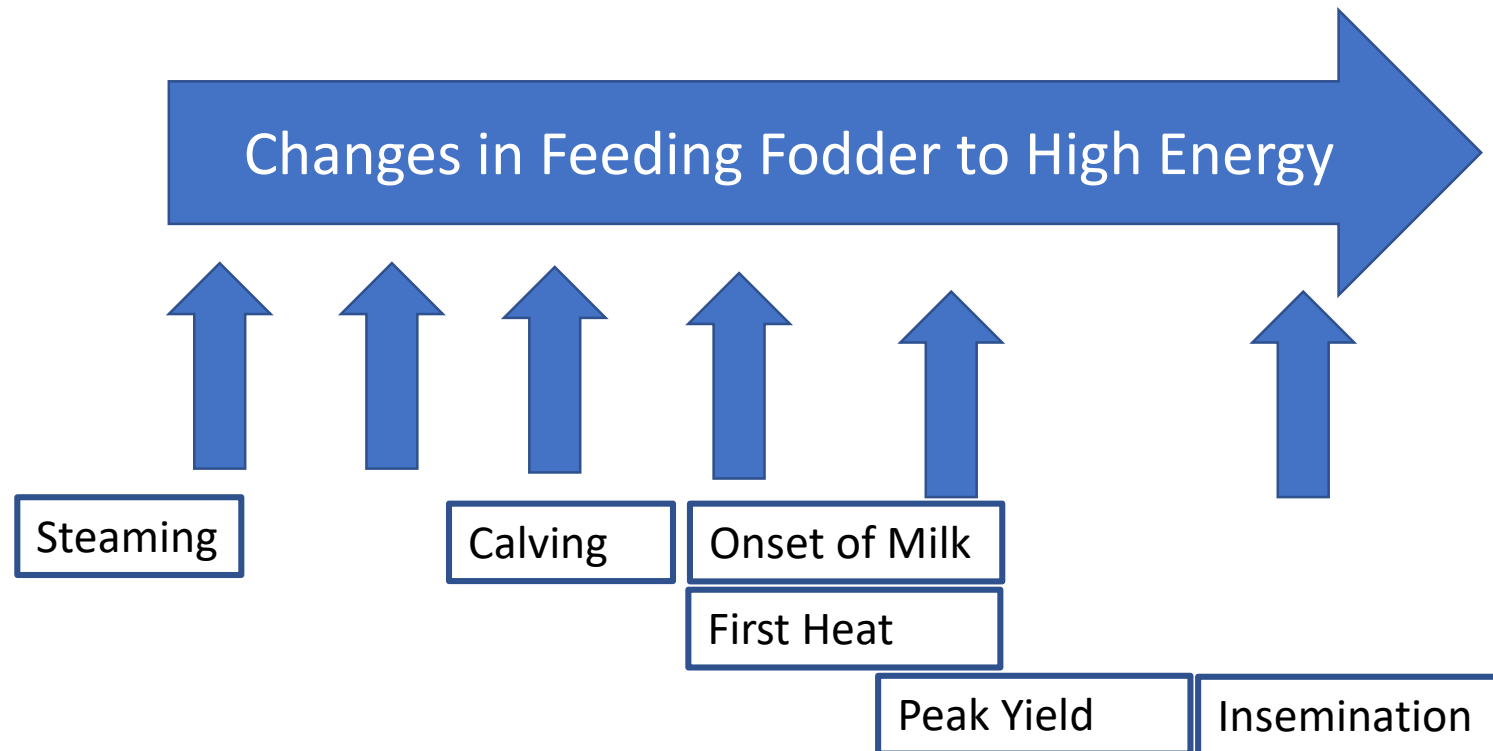
Dr. Abdul Samad

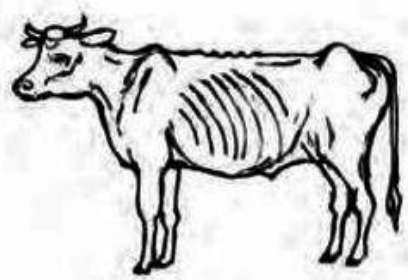
Indiancattle.com

What is 100-day contract?

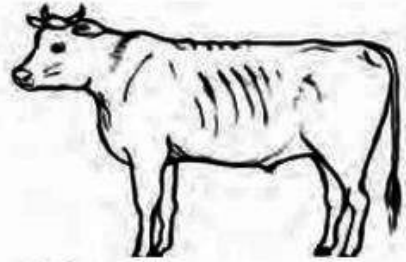


Events in first 100-days

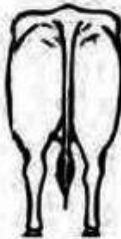
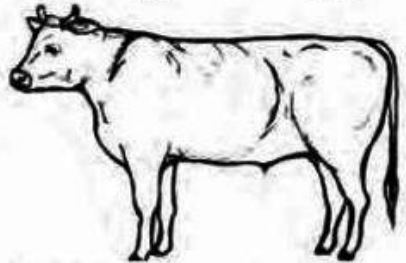




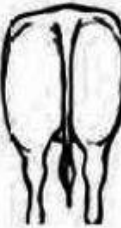
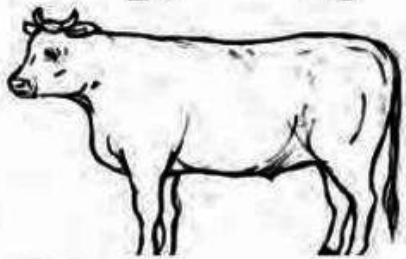
Condition score 1
 Backbone prominent
 Hips and shoulder bones prominent
 Ribs clearly visible
 Tail-head area recessed
 Skeletal body outline



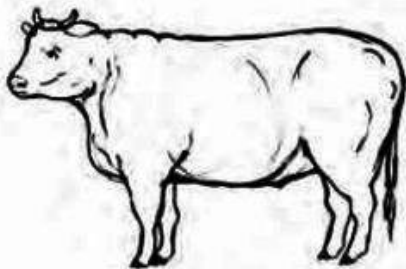
Condition score 2
 Backbone visible
 Hips and shoulder bones visible
 Ribs visible faintly
 Tail-head area slightly recessed
 Body outline bony



Condition score 3
 Hip bones visible faintly
 Ribs generally not visible
 Tail-head area not recessed
 Body outline almost smooth



Condition score 4
 Hip bones not visible
 Ribs well covered
 Tail-head area slightly lumpy
 Body outline rounded



Condition score 5
 Hip bones showing fat deposit
 Ribs very well covered
 Tail-head area very lumpy
 Body outline bulging due to fat



2.0



2.5



2.75



3.0



3.25

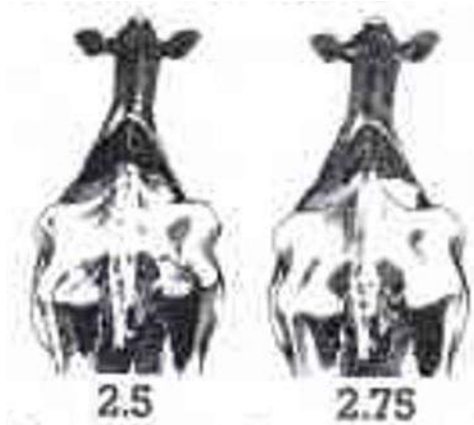


3.5

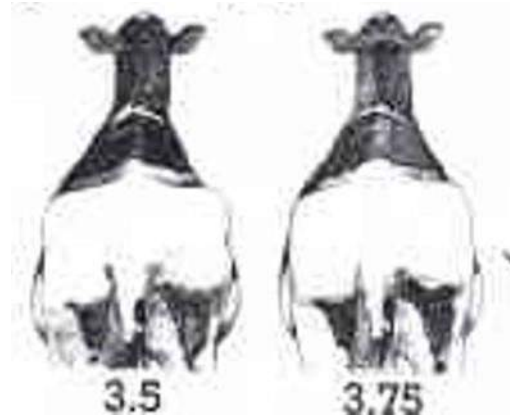


3.75

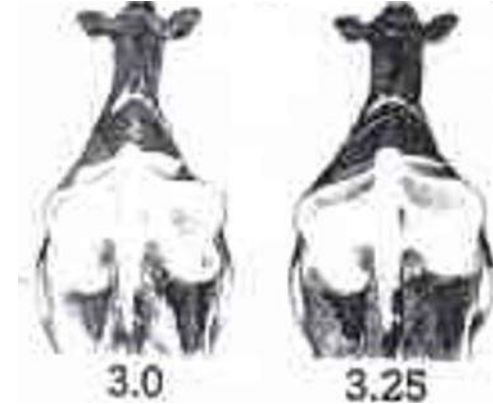
Desired BCS Scores



Onset of Dry
Period



AT Calving



At Peak Yield-100
days

Feeding Management in Last 30 Days

| Gestation | Energy | | Protein | |
|-----------|------------|-----------|-----------|-----------|
| Days | Uterus | Foetus | Uterus | Foetus |
| 210 | 631 / 2.64 | 500 / 2.1 | 76/ 0.31 | 54/ 0.23 |
| 230 | 694 / 2.90 | 601/ 2.51 | 90/ .38 | 54 / 0.23 |
| 250 | 757/ 3.16 | 703/ 2.94 | 103/ 0.5 | 91/ 0.39 |
| 270 | 821 / 3.43 | 805/ 3.37 | 117/ 0.49 | 110/ 0.47 |

Maize Silage 1 kg = 3 MJ

Challenges in first 30 Days

- Feed intake is less 15 days prior to calving – 30-40%
- Fat mobilization – likely to reduce the BCS
- Negative Energy Balance – Invitation to many problems
 - Milk Fever
 - Ketosis
 - Displacement of abomasum
- Individual Feeding – Palatable feed- Start concentrate with high energy- add grains, bypass fat
- Add minerals, vitamins – B. complex
- Promote feed intake – water and energy content important
- Quality of fodder is important as energy must go from this

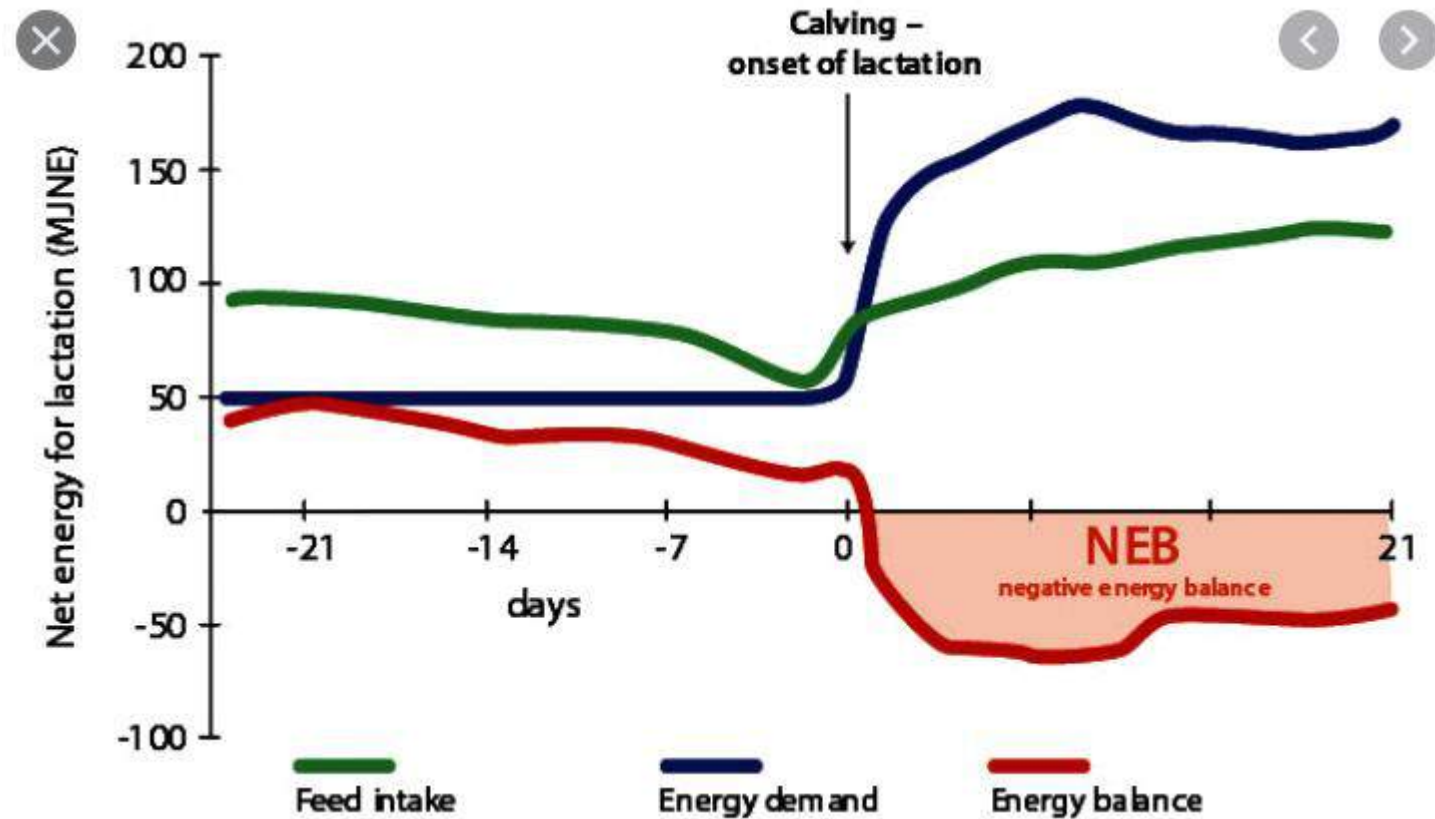
Problems before calving

- Milk Let Down before calving – Leaky Udder
 - Remove milk –if colostrum save for future use
 - Complete milking – administer colloidal calcium oral with vitamin D3
 - Inj. Dicationic calcium (Macalvit)
- Prolapse of vagina / uterus / rectum
 - Mechanical device
 - Consider early parturition by giving Dexamethasone 40-60 mg once
- Discharge from reproductive tract
 - It may be from vagina- Do not worry – Disinfectant vaginal paste
- Milk Fever - Sub-clinical- Administer calcium borogluconate
- Mastitis – Floor dry – teat dip 15 days prior to calving

Problems at the time of parturition

- Retention of placenta – common related to energy status
 - Do not remove manually
 - Unless related to infection (fever, septic)
 - Mastitis
 - Milk Fever
 - Primary Ketosis
- Administer antibiotic Ceftifur sodium x 3 days / Terramycin
- **Injection Ergotamine- in case the animal has been handled also helps in controlling bleeding and early involution**
- **Prolapse- Usually due to high protein feed – Blood urea**

Promoting Feeding is Important after Calving



Energy Requirements in Cows for Maintenance

| Weight (Kg) | Energy Requirement MJ / day | Remarks |
|-------------|-----------------------------|------------------------------------|
| 100 | 17 | Calf between 6-9 months |
| 150 | 22 | Heifer Phase |
| 200 | 27 | |
| 250 | 31 | |
| 300 | 36 | Pregnant heifer phase |
| 350 | 40 | |
| 400 | 45 | Typical Jersey Cows and crossbreds |
| 450 | 49 | |
| 500 | 54 | Typical HF Cows and crossbred |
| 550 | 59 | |
| 600 | 63 | |

Average Daily Energy Requirements in the Last Four Months of Pregnancy in Cows and Buffaloes

| Month of pregnancy | Additional energy MJ/day |
|--------------------|--------------------------|
| Sixth | 8 |
| Seventh | 10 |
| Eighth | 15 |
| Ninth | 20 |

| Fat % | Protein % | | | |
|-------|----------------|-----|-----|-----|
| | 3.0 | 3.2 | 3.4 | 3.6 |
| | MJ / L of Milk | | | |
| 3.4 | 4.9 | 4.9 | 5.0 | 5.1 |
| 3.6 | 5.1 | 5.1 | 5.1 | 5.2 |
| 3.8 | 5.2 | 5.3 | 5.3 | 5.4 |
| 4.0 | 5.3 | 5.3 | 5.4 | 5.5 |
| 4.2 | 5.5 | 5.6 | 5.6 | 5.7 |
| 4.6 | 5.7 | 5.7 | 5.8 | 5.9 |
| 4.8 | 5.8 | 5.9 | 5.9 | 6.0 |
| 5.0 | 5.9 | 6.0 | 6.1 | 6.2 |
| 5.2 | 6.0 | 6.1 | 6.2 | 6.3 |
| 5.4 | 6.2 | 6.3 | 6.3 | 6.4 |
| 5.6 | 6.3 | 6.4 | 6.5 | 6.5 |
| 5.8 | 6.4 | 6.5 | 6.6 | 6.7 |
| 6.0 | 6.6 | 6.6 | 6.7 | 6.7 |
| 6.4 | 6.8 | 6.8 | 7.0 | 7.0 |
| 6.8 | 7.1 | 7.2 | 7.2 | 7.3 |
| 7.2 | 7.3 | 7.4 | 7.6 | 7.6 |

| Feed | DM | Protein | Energy |
|------------------|-------|------------|--------|
| Maize silage | 23-28 | 8.00-12.00 | 10.4 |
| Wheat bran | 87.0 | 17.3-18.5 | 11.0 |
| Cottonseed whole | 92-94 | 21.8-24 | 11.00 |
| Wheat bran | 91-92 | 4.2-4.5 | 5.0 |
| Sorghum forage | 28-30 | 8.2-8.6 | 8.8 |
| Sorghum straw | 93 | 3.7 | 7.3 |

- ***Example of calculating energy requirements in dairy cow***

- Weight 500 kg; Milk Yield- 15 L, fat 3.4%, Protein 3.2%, Loose House activity One Km in a day
- Maintenance – 54 MJ
- Milk – $4.9 \times 15 = 73.5$ MJ
- Activity- 1 MJ
- Total = $54 + 73.5 + 1 = 128.5$ MJ per Day
- Suppose this cow was losing weight and there is need to build up one BCS which will require putting on 44 kg weight in say one month. So MJ required = $44 \times 44 / 30 = 65$ MJ per day in addition to above
- $128.5 + 65 = 193.5$ MJ
-

Post calving metabolic problems

- Commonly asked questions:
- Can sugar / jaggary be fed to cows after parturition? – yes 350 to 700 g maximum mixed in feed- add 1 kg barley
- Can oil be fed to cows after calving – Yes up to 250 – 500 ml , but better option is bypass fat or give whole cottonseed
- Should this cocktail be cooked? No
- Should this cocktail be mixed with water overnight? No
- Give additional magnesium sulphate and Zinc sulphate 50 -100 g daily for 30 days
- Vitamin B. complex – Especially yeast culture medium
- Yeast culture 5 billion in feed
-

Treating endometritis

- Observe the cow uterine discharge in first week after parturition
- First heat should normally be within 21-30 days of calving
- If discharge is normal- uterus is healthy
- Should differentiate between vaginal discharge and uterine discharge
- Never use Lugol's iodine intrauterine / avoid intrauterine drugs
- Important to treat uterine infections thoroughly – else respiratory and mastitis

Post Milking Teat Dipping to prevent mastitis

- Loose housing – earth floor- post milking teat dip
- Problem mastitis would be minimum- milk production up by 20-25%
- Teat dip should be used continuously.
- Avoid using germicidal teat dip – barrier type
- Avoid intramammary
- Repeated milking and emptying of udder more effective than antibiotic

Minimum laboratory testing

- Milk / blood urea – at least once every six months
- Minimum metabolic profile- Hb, PCV, serum calcium, urea , phosphorus
- Milk fat / protein of individual cows – every month
- Faeces examination for parasite twice in year
- Record Body condition score three times in the lactation period

Common Myths

- Giving bath to cows and buffalo is important - No, it is contraindicated
- Washing of the barn (Gotha)- Avoid leads to humidity and disease
- Inseminate early after calving – No, wait for at least 62-70 days
- Cows and buffaloes should be tied else they fight – No they don't
- Cows should be taken to milk calmly- don't hit
- Tactile stimulation and feeding is important for optimum milk let down
- Oxytocin is secreted in milk and causes problems to consumers- No
- Don't use oxytocin in animals as it is addictive

Record keeping is important

- Now there are Apps available – even in Marathi
- Participate in the Government program on tagging – identification is good
- Herdman- Mobivet is available very cost effective for one year subscription Rs. 150 – All notifications free, for your doctors it is free
- Action lists and alarm every day
- Proper breeding, high producing breed cows and buffaloes