

## First Setup of the guidelines

1. Rationale
  - 1.1. Guidelines need to be a type of standard operating procedure (SOP)
  - 1.2. What are basic needs; purpose of recording.. for management, for breeding....  
Different needs for accuracy of recording
  - 1.3. What are the basic data to be known: birth date, calving date...
2. Reading Animal id and connection to the sample vial
  - 2.1. Animal id, farmers id, cow number in farms..
    - 2.1.1. Electronic eartags (talk to id WG)
  - 2.2. Identification of the sample vial
  - 2.3. Connection of sample to cow milking/ cow 24 h yield
3. The recording
  - 3.1. Recording systems to be applied (A, B, C, T etc), frequency of recording
  - 3.2. Which cows need to be recorded in herd
  - 3.3. Preparation of sample vial....
  - 3.4. How to take the sample (proportional, fixed amount....)
  - 3.5. Handling of cows??
  - 3.6. What data need to be recorded (milk yield, time, type of sample.., reliability of the record)
  - 3.7. Transportation of samples
    - 3.7.1. Cooling? ...
    - 3.7.2. ....
4. Storage of data in database
  - 4.1. Store the raw data (animal id, date- time start milking, date time end milking, sample id, type of sample, % fat, .....
  - 4.2. Match milking cow to sample id
  - 4.3. Match 24 h yield to sample (in case of accumulated sample)
  - 4.4. Plausibility checks
  - 4.5. Time that data are kept in database???
5. Derivations/ calculations
  - 5.1. 24 h yield milk, fat, protein, SCC, ... Maybe procedures to derive country specific factors to calculate 24 h yields...

- 5.2. 305 day/ lactation records. I do not favor to describe all methods. My proposal would be to refer to appendices, scientific papers (presented at ICAR meetings or peer reviewed and published articles)
6. Information to farmers
  - 6.1. List of basic items to be presented to farmers. On herd test level and on animal level. Further up to the recording organization to decide what to report back
7. Interval between recording and information back to farmer
8. Procedures to maintain level of quality of recording
  - 8.1. Bulk tank data and comparison with this
  - 8.2. Bulk tank sample
  - 8.3. Repeated sampling: when, how, ...
  - 8.4. Certification of the herd technicians??
9. Full automatic recording systems
  - 9.1. AMS systems
  - 9.2. Automatic sampler. Interference.... Can you change data, can you see that data are changed
10. Use of data collected by milk meters
  - 10.1. What type of data....
  - 10.2. ....
11. Type of traits to be recorded
  - 11.1. Milk traits: yield, fat, protein, lactose, MUN, SCC...
  - 11.2. pH of sample, to identify quality of sample....
  - 11.3. Optional: Other than milk traits....
12. Calibration of meters?? (talk to recording devices group)
  - 12.1. Evaluate milk meters??.. Statistically analysis to calibrate meters???