



# Milk recording in small herds

## Croatian case

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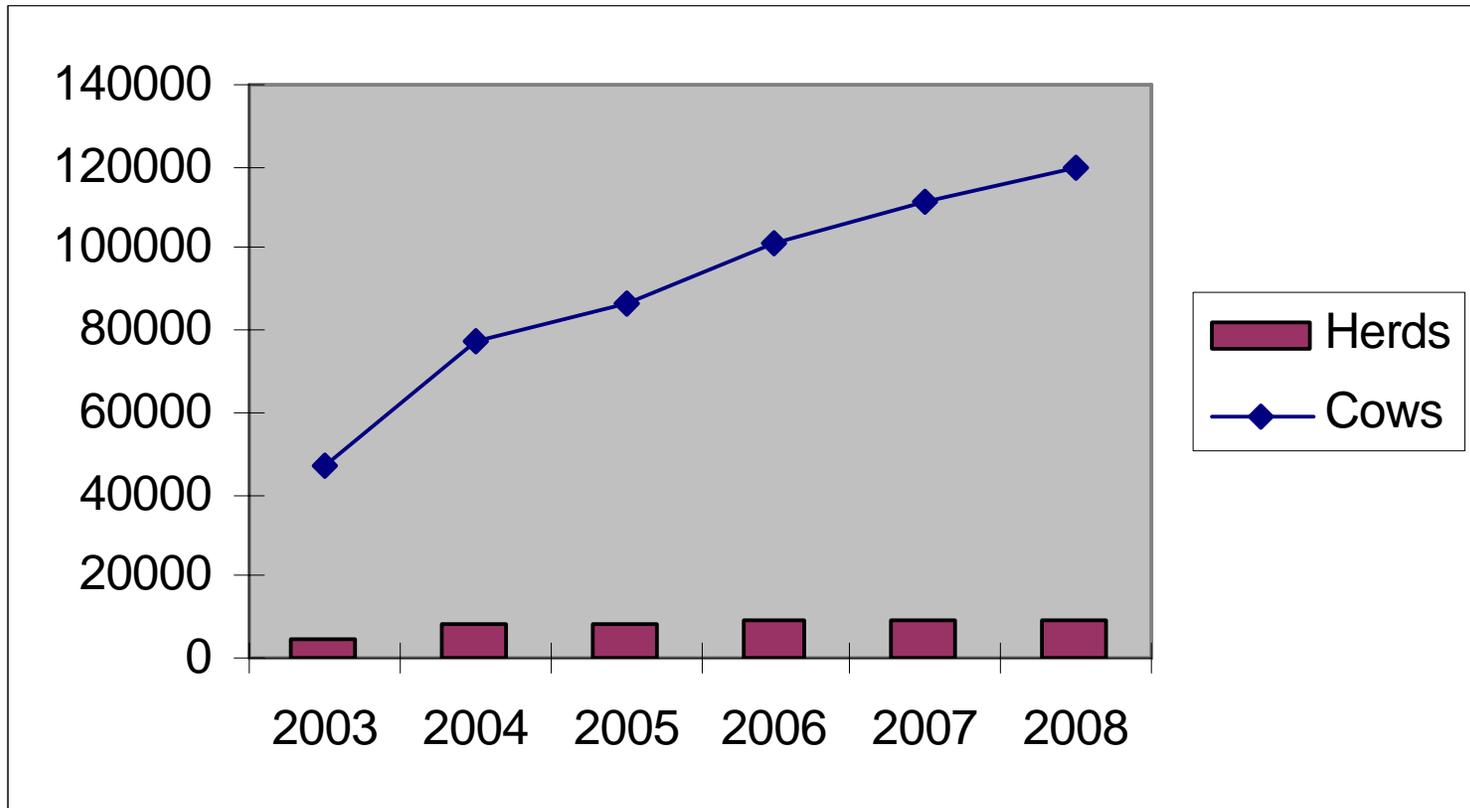


# General data

- Total 226.000 cows (2008)
- 120.001 recorded cows (53.1%)
- 9.122 recorded herds (Ø 13.3 cows per herd)
- Breed structure in recorded herds:
  - Simmental (62.6%)
  - Holstein (34.9%)
  - Brown (2.3%)
  - Others (0.2%)



# Milk recording development





# Milking systems

- Milking in milking buckets (small herds)
  - 93.5 % recorded herds
  - 66.6 % recorded cows
- Milking pipeline (small herds)
  - 2.2 % recorded herds
  - 4.3 % recorded cows
- Milking parlour (large herds)
  - 4.3 % recorded herds
  - 29.1 % recorded cows

# Measurement devices in small herds



- Electronic scale
  - 93.5 % recorded herds
  - 66.6 % recorded cows
  
- Waikato Milk Meter
  - 2.2 % recorded herds
  - 4.3 % recorded cows



# Electronic scale & Waikato



- Arrival of control assistant to farm
- Preparation of control assistant for work



# Electronic scala



## ■ Preparation of measure equipment

- setting of a mobile rack for stability and precision of scale measuring
- weighing of empty jar
- Tare weight taking of empty jar
- scale is ready for work

# Waikato



- Mk V Milk Meter
- Regularly appliance control (two times per year - control assistant)
- Annual appliance control (ones a year)
- The test procedure – approved by ICAR

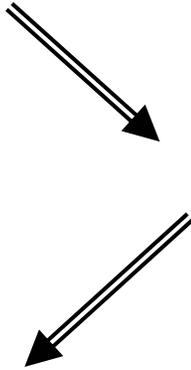
# Electronic scale & Waikato



- Identification of cows by number of ear tags through PDA
- Check identification in Central database
- Check the status of cow before the implementation of recording



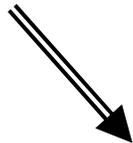
# Electronic scale & Waikato



## ■ Preparing of bottle for sampling

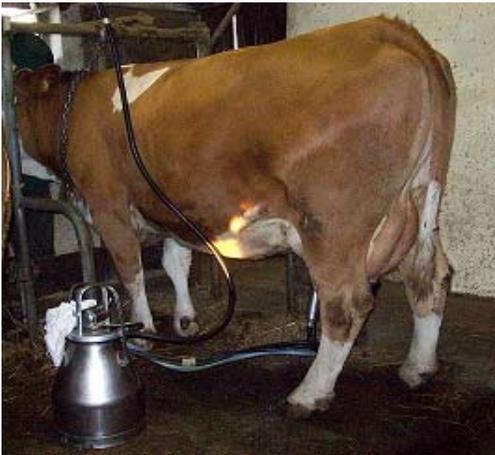
- preparation of bar code label
- paste of bar code label on the bottle
- verification of preservative (azidiol)
- bottle is ready for sampling

# Electronic scale & Waikato



## ■ Milk recording

- preparation for milking and placing the milking equipment
- checking the start time of milking
- milking



# Elektronska vaga



## ■ Milk recording

- checking the finish time of milking (duration of milking ↔ average flow of milk)
- preparation for weighing
- weighing and determining the produced quantity of milk

# Electronic scale



- Milk sample preparation

# Waikato Milk Meter



- Correct installation of measuring devices
- Placing of milking devices
- Measuring the quantity of milk
- Sampling of milk

# Electronic scale & Waikato



## ■ Enter data

- data entry on produced amount of milk and reading bar code
- data sending in Central database





# Electronic scale & Waikato



- Placing of milk recording samples in the case
- Transport of samples to the Central laboratory for the control of milk



# Heat stress



- Measuring air temperature in the stable
- Measuring relative humidity in stable
- Temperature – humid index (THI)



# Data recording (1)



- Handheld computer to enter data of milk recording



# Data recording (2)

Zivotni broj	Naziv grla
HR 0017023652	
HR 0017004790	
HR 0017074070	SVILKA
HR 0017034903	
HR 0017018899	
HR 0017027625	
HR 1100660354	
HR 0072035411	
HR 0017007199	

Buttons at the bottom: IZLAZ, OBRISI, ULAZ.

- Software for data recording

# Other dairy systems (1)



## ■ Milking Parlour Types

- Tandem
- Parallel
- Herringbone
- Rotary



# Other dairy systems (2)

- Robotic Milking

- 1 Farm, 6 Milking Robots





***THANK YOU FOR YOUR  
ATTENTION!***