ICAR General Assembly and Management Workshop
Poreč (Croatia) 11 – 14 May 2009

Recording and sampling in large herds. Experiences from practice.

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Germany Federal States

Eastern Germany

Land Brandenburg

Tasks of the LKV Brandenburg e.V.

- ☐ **Milk Recording**

- ☐ **Milk quality testing**

- ☐ **Marking and registration of the cattle**

- ☐ **Management of the pig, sheep and goat data bank**

- ☐ **Dairy farmer consultation**

- ☐ **Feed analysis, water analysis**

- ☐ **Soil analysis**

- ☐ **Organic fertilizer analysis**

- ☐ **Input, fermenter content and output digester gas**

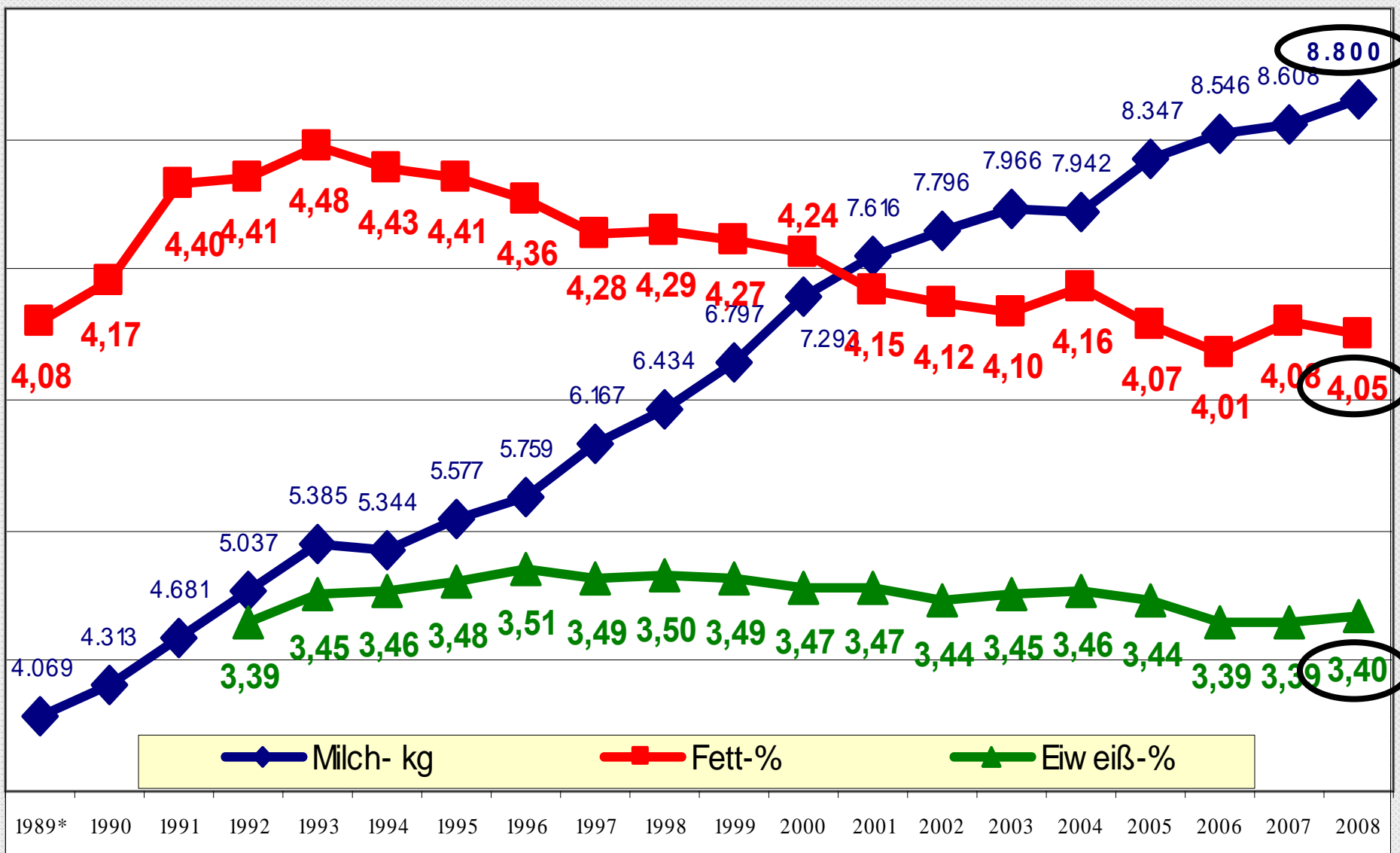- ☐ **Mastitis analysis**

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Milk Recording

Technician Mrs Heidelore Dehnert, during Milk Recording in Agrofarm GmbH Hammer/Liebenthal
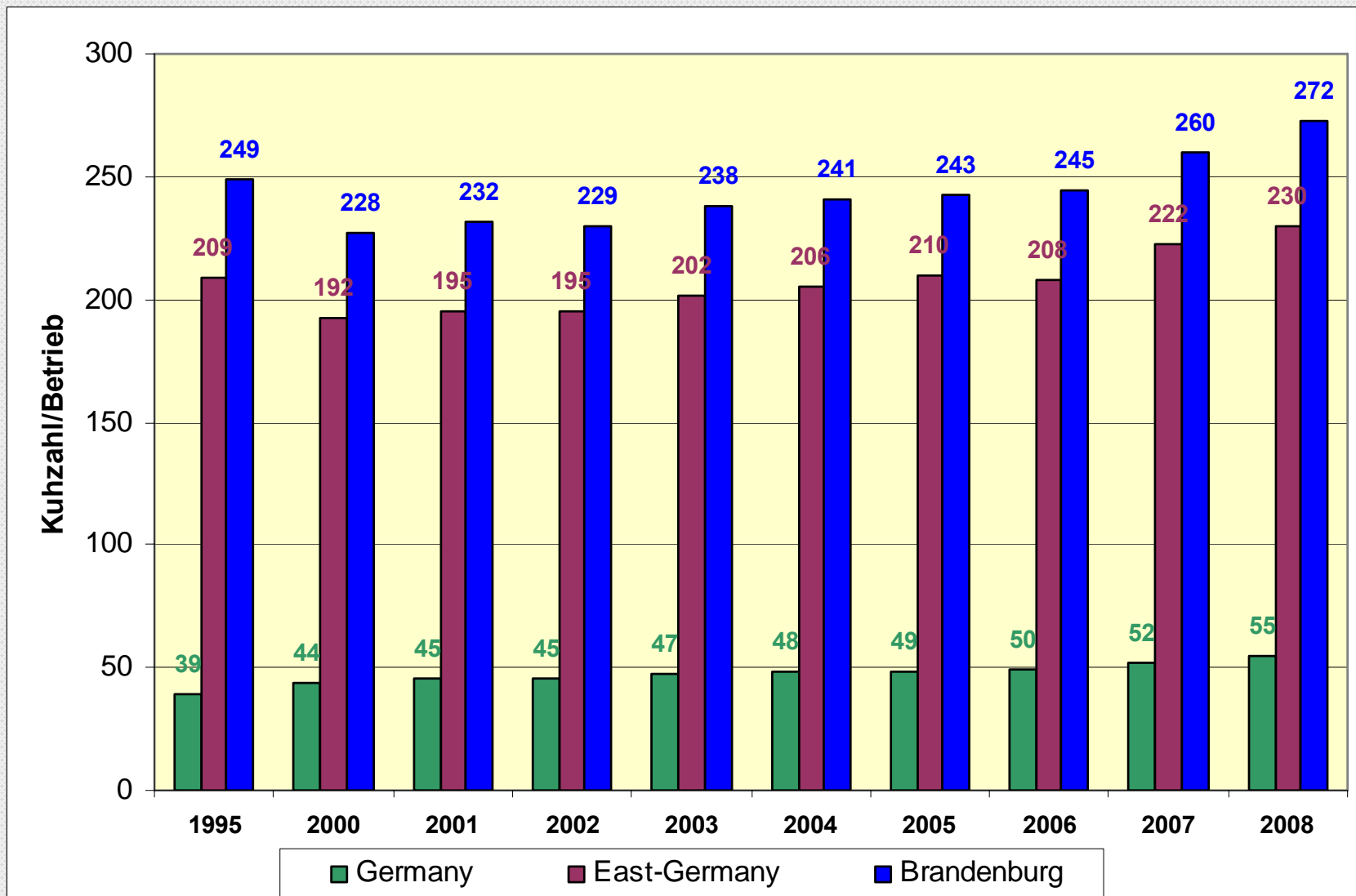
Milk Recording 2008 - Land Brandenburg

category	

recorded cows (Ø year)	**162,764**
recorded herds (Ø year)	**601**
average cows in recorded herds	**272**

cows in recorded herds min / max	**1 / 2,884**
3x milking herds / cows	**85 / 30,446**
%	14 / 19

milk recording density in %	**97.5**
milk recording method A_4 / B_4 in %	**50.5 / 49.5**

processing times in days	**3.5**
recorded herds und cows / technician	**8 / 2,050**

Development of milk yield
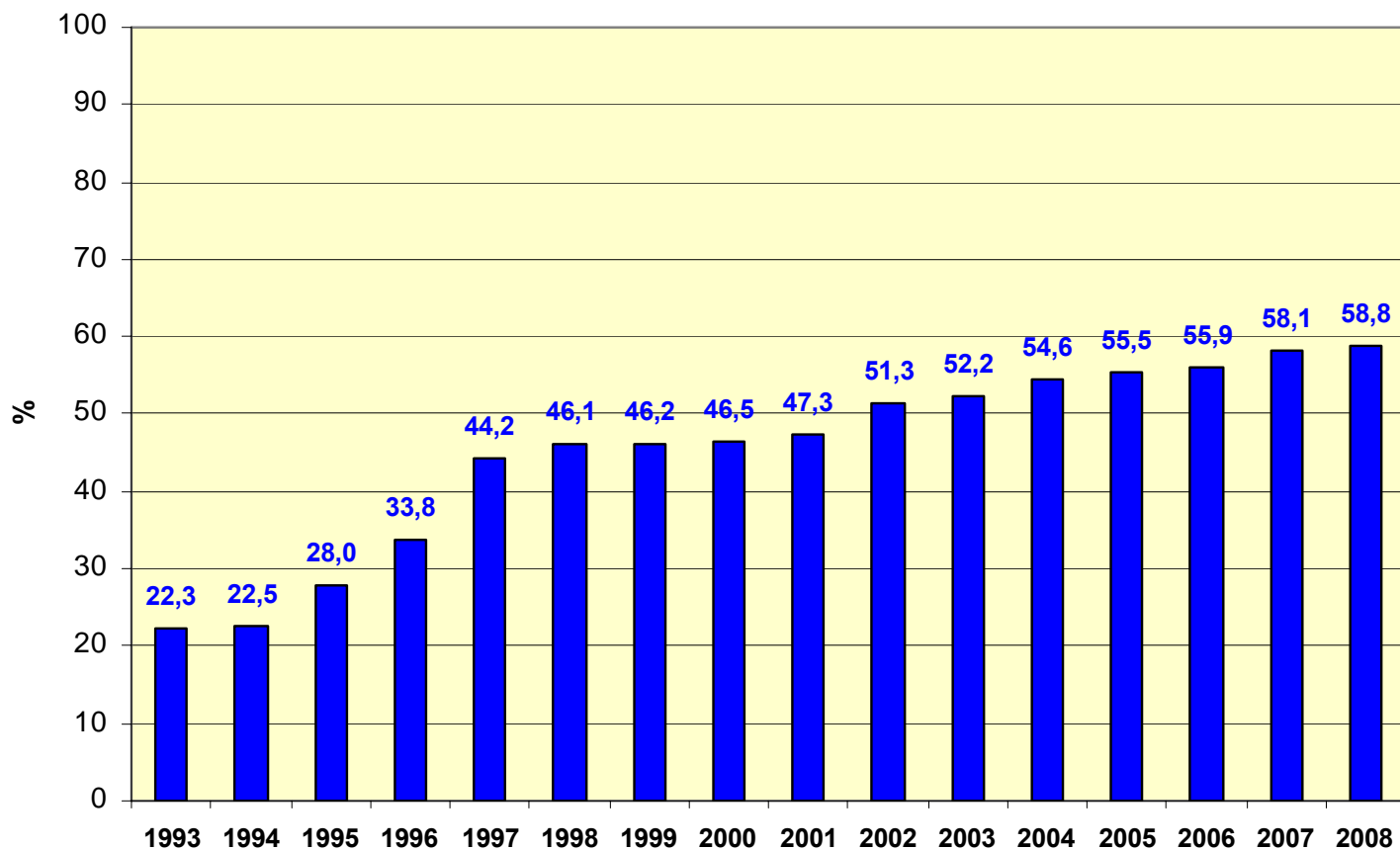# Land Brandenburg 1989 to 2008

Milk Recording
average cows in recorded herds 1995-2008
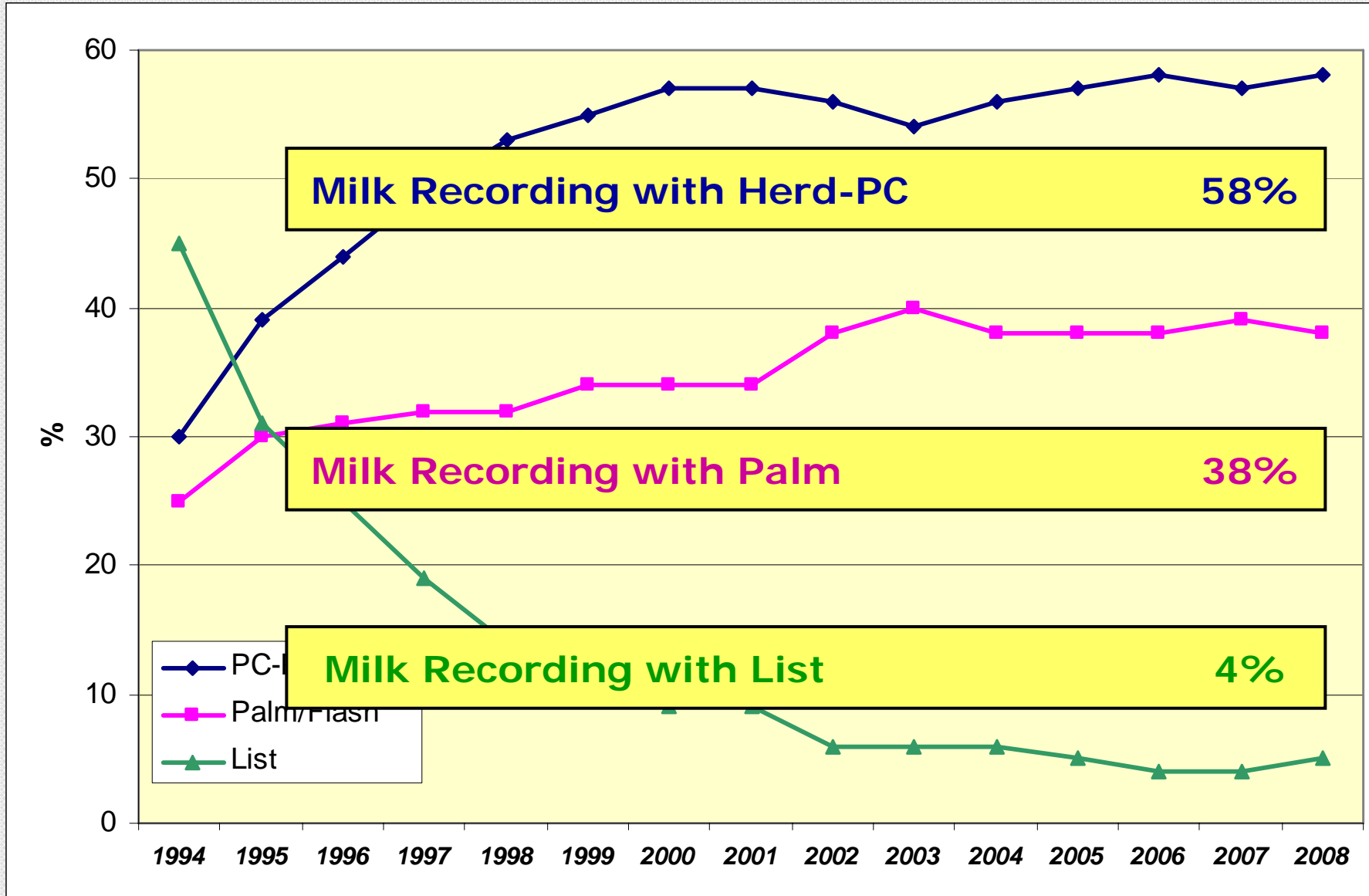## Germany, East Germany, Land Brandenburg

Milk Recording Devices (MRD)

	stationary MRD	mobile MRD
2008	7.404	1.610

Chart – MRD percentage by year (%):

- 1993: 22,3
- 1994: 22,5
- 1995: 28,0
- 1996: 33,8
- 1997: 44,2
- 1998: 46,1
- 1999: 46,2
- 2000: 46,5
- 2001: 47,3
- 2002: 51,3
- 2003: 52,2
- 2004: 54,6
- 2005: 55,5
- 2006: 55,9
- 2007: 58,1
- 2008: 58,8

Transaction of Milk Recording (MR)

Milk Recording with Herd-PC — **58%**

Milk Recording with Palm — **38%**

Milk Recording with List — **4%**

Legend:
- PC-
- Palm/Flash
- List

Equipment for Milk Recording

- ☐ Box with vials

- ☐ measuring beaker

- ☐ Scaled pipette

- ☐ Dispenser for conservation

- ☐ Accompanying document

- ☐ if necessary mobile RD

  (ICAR-approved)

- ☐ Palm, Aqua pack

- ☐ Printer, Modem

General Preparation of Milk Recording

- ☐ All cows of a stable are included in the MR

- ☐ All cows are flagged with eartag

- ☐ Changes of the Milking procedure, the Milking times and the feeding before Milk Recording are not valid

- ☐ Any insets of hormones or active agents to promote the milk performance are prohibited

- ☐ The MR is realized evenhanded, conscientious and punctual

- ☐ Farms with two times milking start MR in the evening

- ☐ Farms with three times milking start MR at noontime

Preparation of Milk Recording Herd-PC

- ☐ Boxes and if necessary RD (ICAR-approved) have to be ordered in necessary number

- ☐ Accesses and leaving as well as birth for the period after the last MR have to be listed

- ☐ Status **Dry** and ... have to be listed

- ☐ conservation ...

- ☐ Open "MR" in ... and box num ... milking frequ ...

- ☐ print PC-prep ...

- ☐ if necessary ... annually app ...

Milk Recording in large herds

Realizing

- Identifi... sual (on list...
- Write o... on display... automa...
- Mix the... measur...
- sampli... ing with s...
- fill the ...nd shake the bo...
- each c... ll the milking...
- empty

13

Data acquisition and data provision in stable   Herd-PC

- ☐ Milk yield has to be .... tion list for every cow
    - ■ (data record pe .... box number, vial n .... uency)
      (is omitted with .... yield to the herd-PC)
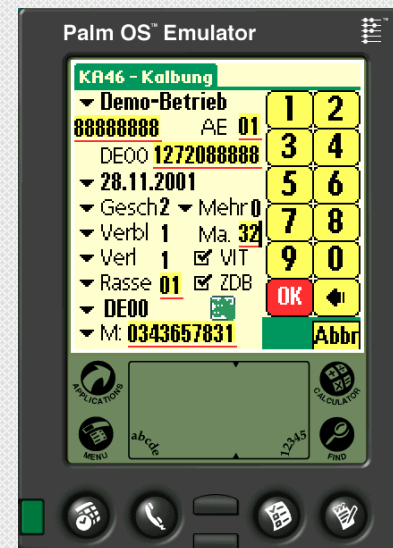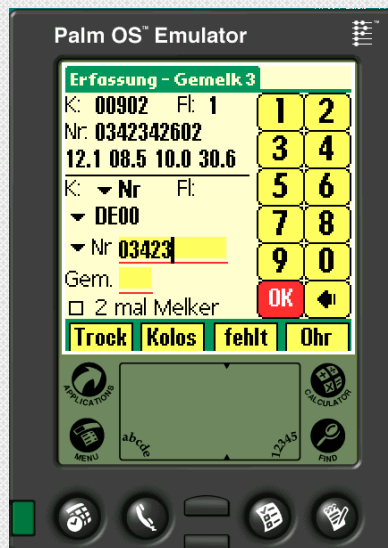
- ☐ Fill in accompanying documents (farm, date, check method, technician, box number, milking time)

- ☐ Validity check, whether all of the data are listed

- ☐ transfer the MR-Data, via dial-up, mail-box or electronic volume to the LKV

Milk Recording in large herds

Milk Recording with Palm

Preparation of Milk Recording   Palm

- ☐ Boxes and if necessary RD (ICAR-approved) have to be ordered in necessary number
- ☐ Data stock is located in the Palm-Program
- ☐ Accesses and leaving as ~~~~~~~~ period after the last MR have to be ~~~~~~
- ☐ conservation of needed ~~~~~~
- ☐ open "MR" with Palm-P~~~~~~~~~ umber
- ☐ allocation of the Milking~~~~~~~~~ spective cow via Palm-Program
- ☐ enter Status **Dry** and **C**~~~~~~ spective cows
- ☐ if necessary the mobile ~~~~~~~~ in (only annually approved RD)

Realizing Milk Recording   Palm

☐ Identification of the cows via automatic Systems or visual (on list)

☐ Type in the milk yield into the Palm-Program (read off on display or scale, when mobile RD)

☐ Mix the entire milk thoroughly and transfuse it into a

☐ empty measuring beaker after each milking

Data acquisition and data provision in stable   Palm

- Milk y .... w
  (data ....
  vial nu ...

- Fill in .... d,
  techn ...

- Validit .... s done
  autom ...

- transfer the MR-Data from Palm via blue-tooth Modem and
  e-Mail to the LKV

Sample Transport

- ☐ Provision of the samples and documents in the Farm or in collecting points and transport with reefer
- ☐ Collection of the samples through own courier service according to schedule

Sample accepting and analysis

☐ Incoming inspection

■ (farm, sample number, conservation, fill level, completeness of the documents)

☐ Analysis: fat, protein, lactose, somatic cell, urea

Milk Recording in large herds
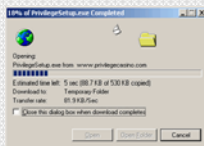
Processing Data and Inform the Farmer

- ☐ Merging: cow number and milk yield with ingredients of milk (milk composition)

- ☐ Performance Calculation (Day of MR, milking average, stable average, sliding annual performance, 100-days-performance, 305-days-performance, annual performance, 305-daily output, life-performance, and so on)

- ☐ Data storage

Inform the Farmer

- ☐ The LKV and the Data Processing Center inform the farmer via:

Internet	Fax	Mail

Processing time 3.5 days (from first day of MR to day of informing farmer)

Thank you for your attention!

Milk Recording with Herd-PC

- ☐ 1,501 cows
- ☐ 10,279 kg Milk yield
- ☐ 3.91% fat
- ☐ 3.25% protein
- ☐ 4 B-technician
- ☐ 3x Milking (Gesamtbestand)
- ☐ Milking parlor: Boumatic carrousel 60 places, outside
- ☐ MRD Perfection 3000

Milk Recording with Herd-PC

- 2,378 cows
- 9,359 kg Milk yield
- 3.99% fat
- 3.39% protein
- 4 A-technician
- 3x Milking
  (Teilbestand)
- Milking parlor:
  Gea Westfalia Surge
  carrousel
  60 Melkplätze, inside
- MRD Metatron

Milk Recording with Palm

- ☐ 206 cows
- ☐ 7,761 kg Milk yield
- ☐ 4.11% fat
- ☐ 3.52% protein
- ☐ 1 A-technician
- ☐ 2x Milking
- ☐ Milking parlor: Gea Westfalia Surge carrousel

  20 Melkplätze, inside
- ☐ MRD Metatron

Thank you for your attention!