



Recording claw disorders electronically

ICAR annual workshop
2011

Bourg-en-Bresse

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Danish Cattle federation



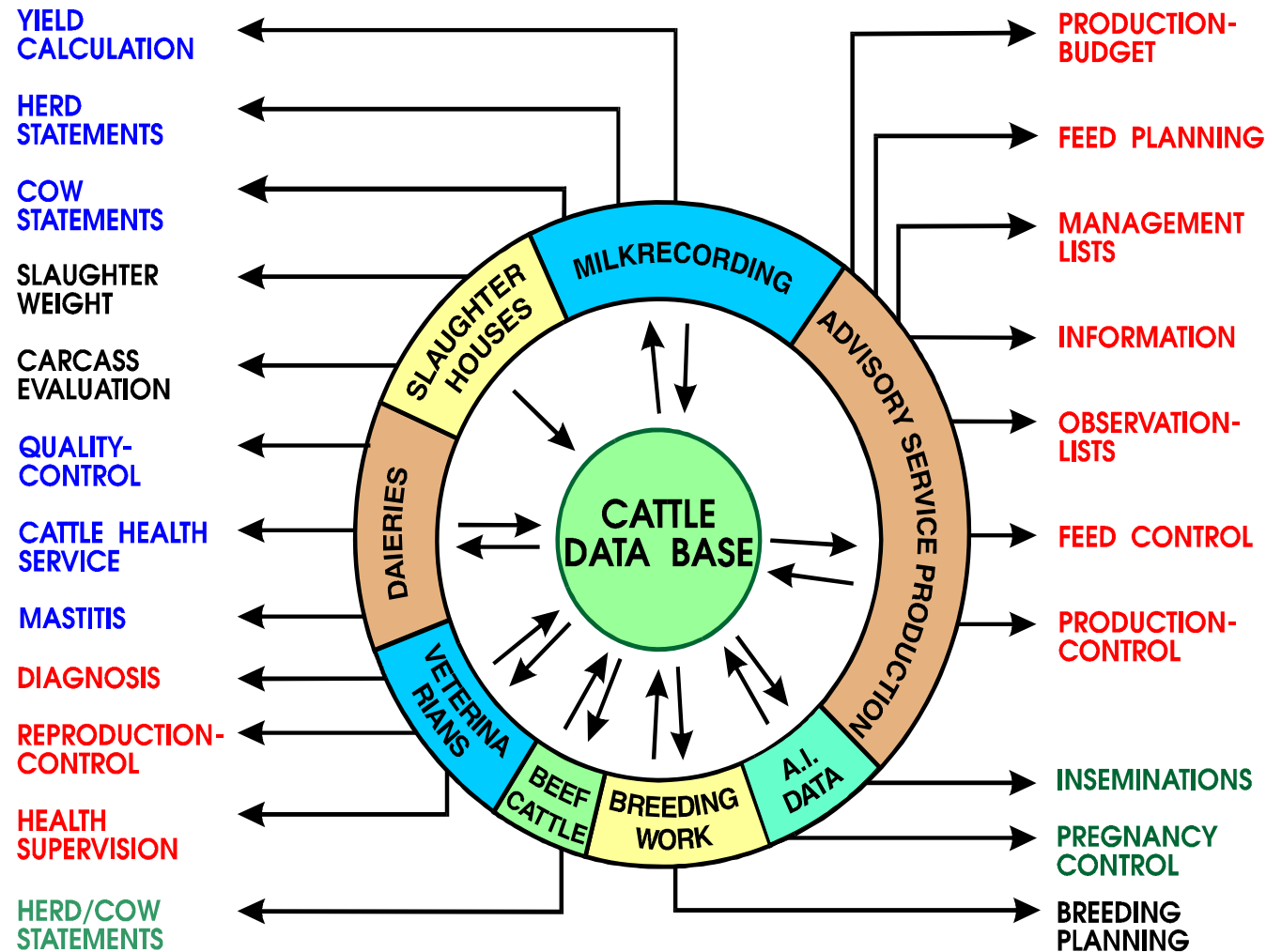




Background

- Increase in herd size
 - Change in cow environment
 - More cows pr. man hour
- =>Dramatic increase in Claw disorders
- Interest in possible breeding improvements
 - Increasing focus on management actions
- =>Action was necessary!!

CATTLE DATABASE - THE BASIS OF ADVICE AND SERVICE TO THE CATTLE FARMERS





Recording Claw diseases

Until 2009:

- Claw health not recorded on a regularly basis in Denmark
- Central Danish Cattle Database: Cow numbers, data on milk yield, reproduction ect. but
- Very few central data on claw diseases

Jan 2008

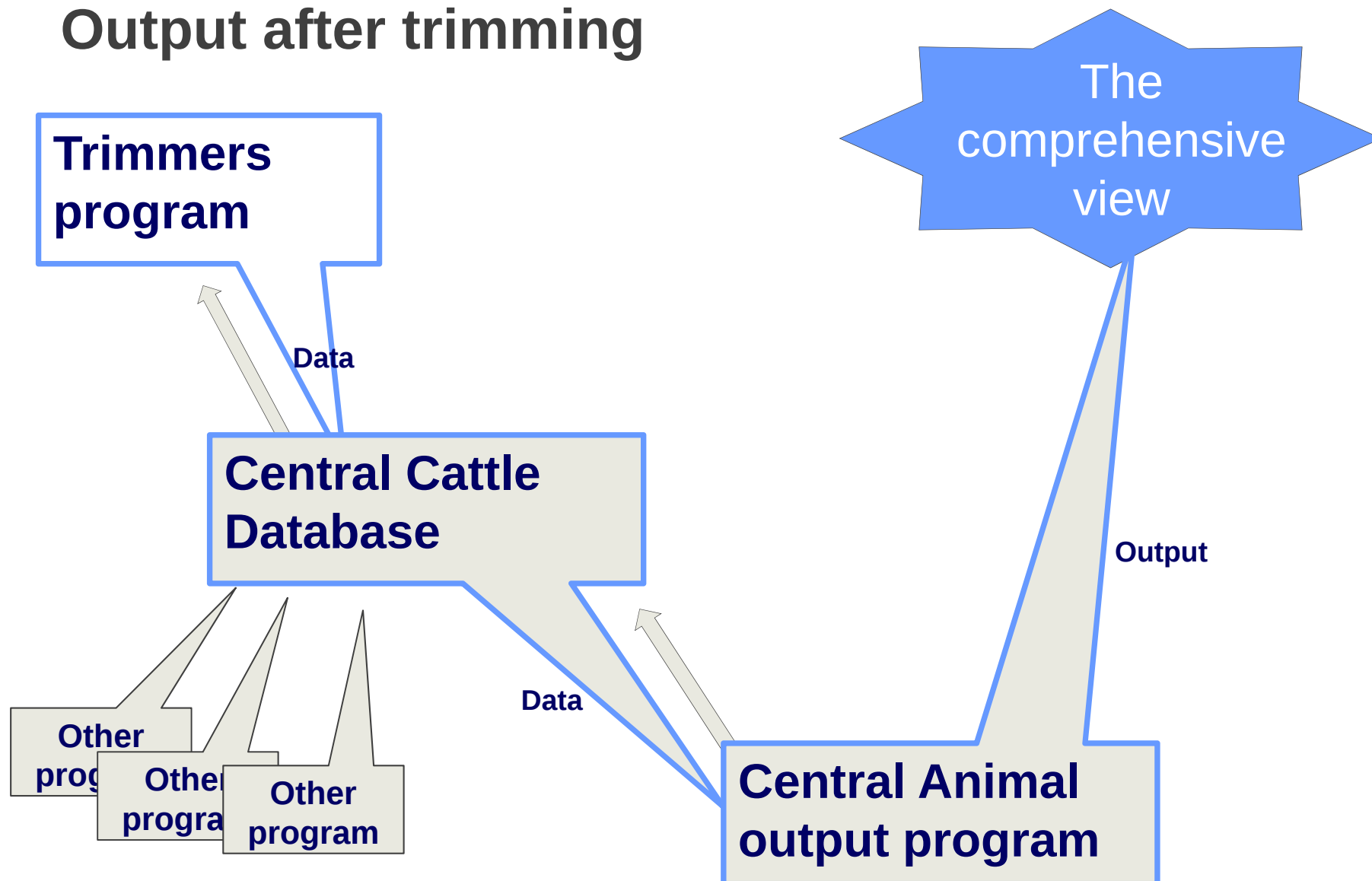
- NAV working group: Joint Nordic Claw record scheme (DK, S, Finland)
(NAV = Nordic Cattle Genetic Evaluation)
- Hoof trimming traits to be recorded including a short description of the trait

2008 – 2010

- Software program for recording claw disorders during trimming
- Program communicating on-line with the central Danish Cattle Database
- Touch screen solution ready spring 2010



Output after trimming





Recording Claw diseases

2010 - 2011

- About 112 trimmers in Denmark
- 52 trimmers have bought the touch screen we recommended

Blue Line Panel PC 67 12 “

- 12 inch screen
- Wireless internet connection
- Cost: About 2.000 euro



- a few trimmers have chosen a cheaper solution (paper or cheaper screen)



Select Herd

Username

lcjhf

Advisor

Advisor

Date

6/21/2011

Herd Number

...

Owner:

Latest Retrieval:

Retrieve Herd

1

2

3

4

5

6

7

8

9

Clear

0

Clear All

Menu

Close Application

Select Animal

DA 15:59 21-06-2011



Select Animal

CKR Number
100000 -

Select

- 19220-01656
- 19220-01657
- 19220-01669
- 19220-01671
- 19903-03940
- 19903-03947

Finish Herd

1 2 3

4 5 6

7 8 9

Clear 0 Clear All

Close Application

Show Previous Hoof Cut



Register Hoof Cut

Number of Hoof Cuts: 0 CKR Number 19220-01656 A

Heel horn erosion Let	Sole bleeding Let	Sole ulcer Let RF	ID Let	Granuloma Let	DD Let
Heel horn erosion Svær	Sole bleeding Svær	Sole ulcer Svær	ID Svær	Granuloma Svær	DD Svær

Select Disease

Left Front	Right Front	Shoe (0)
Left Back	Right Back	Bandage (0)

Bandage: 0 Shoe:0

Follow Up

Delete Disease

Next Hoof Cut



Register Hoof Cut

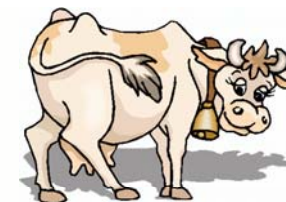
Number of Hoof Cuts: 0 CKR Number 19220-01656 A

Heel horn erosion Let	Sole bleeding Let	Sole ulcer Let RF	ID Let	Granuloma Let	DD Let
Heel horn erosion Svær	Sole bleeding Svær	Sole ulcer Svær LF LB	ID Svær	Granuloma Svær	DD Svær RB

Heel horn erosion - Svær

Left Front	Right Front	Shoe (0)	Bandage: 0 Shoe:0
Left Back	Right Back	Bandage (0)	Follow Up
			Delete Disease

Navigation buttons: Left arrow, Right arrow, Next Hoof Cut



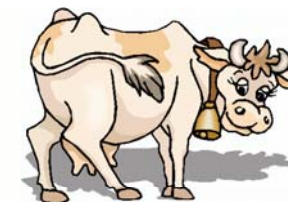
Former recordings on actual cow...

Tidligere klovbeskæringer

6 registreringer for 12345-6789

Dato	Sygdom	Grad	Ben	Sko	Forb.	Behandler
29-03-2009	Såleblødning	Svær	VF	☐	☐	User2
29-03-2009	Anden lidelse	Svær		☐	☒	User2
30-04-2008	Klovbrand byld	Svær	HB	☐	☒	User1
30-04-2008	Sålesår	Svær	HF	☐	☐	User1
30-04-2008	Balleråd	Mild	VF	☐	☒	User1
30-04-2008	Balleråd	Svær	VB	☐	☐	User1

<

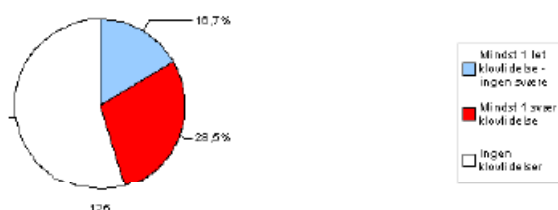


Output for diagnosing - graphs / Visual output

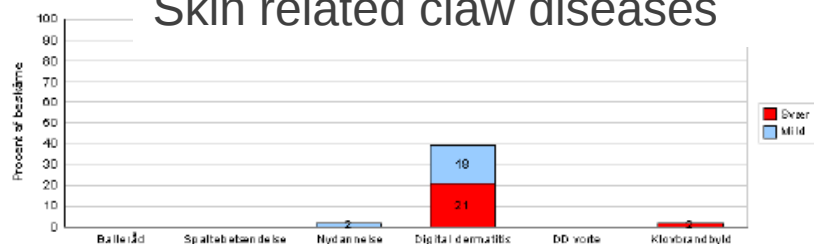
Se vejledning sidst i udskriften

I ovenstående periode er der foretaget 233 beskæringer på 228 dyr

Klovbeskæring oversigt



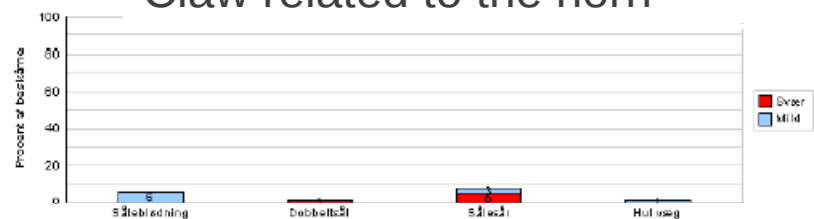
Skin related claw diseases



Hudrelaterede klovlidelser for 233 beskæringer på 228 dyr

Sværhedsgrad	Balleråd	Spaltebetændelse	Nydannelse	Digital Dermatitis	DD vorte	Klovbrandbyld
Ikke angivet	0	0	0	0	0	0
Mild	0	0	2	42	0	0
Svær	0	0	0	49	0	5

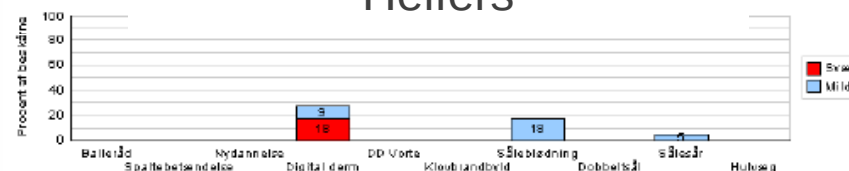
Claw related to the horn



Hornrelaterede klovlidelser for 233 beskæringer på 228 dyr

Sværhedsgrad	Såleblødninger	Dobbeltsål	Sålesår	Hul væg
Ikke angivet	0	0	0	0
Mild	15	0	8	3
Svær	1	2	11	0

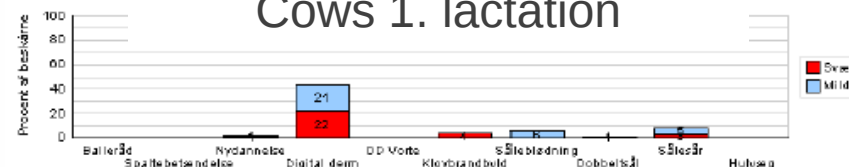
Heifers



Beskæringsresultater for kvier: 22 beskæringer på 22 kvier

Sværhedsgr.	Balleråd	Spaltebet.	Nydannelse	Dig. dermat	DD Vorte	Klovbr.b	Såleblødn	Dobbeltsål	Sålesår	Hul væg
Ikke angivet	0	0	0	0	0	0	0	0	0	0
Mild	0	0	0	2	0	0	4	0	1	0
Svær	0	0	0	4	0	0	0	0	0	0

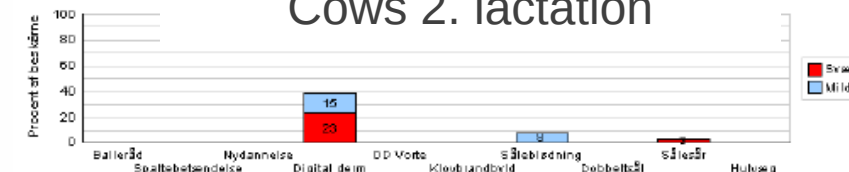
Cows 1. lactation



Beskæringsresultater for 1.kalvs køer: 98 beskæringer på 98 dyr

Sværhedsgr.	Balleråd	Spaltebet.	Nydannelse	Dig. dermat	DD Vorte	Klovbr.b	Såleblødn	Dobbeltsål	Sålesår	Hul væg
Ikke angivet	0	0	0	0	0	0	0	0	0	0
Mild	0	0	1	21	0	0	6	0	5	0
Svær	0	0	1	22	0	4	0	1	3	0

Cows 2. lactation



Beskæringsresultater for 2.kalvs køer: 40 beskæringer på 40 dyr

Sværhedsgr.	Balleråd	Spaltebet.	Nydannelse	Dig. dermat	DD Vorte	Klovbr.b	Såleblødn	Dobbeltsål	Sålesår	Hul væg
Ikke angivet	0	0	0	0	0	0	0	0	0	0
Mild	0	0	0	6	0	0	3	0	0	0
Svær	0	0	0	9	0	0	0	0	1	0



Why we designed the program as we did

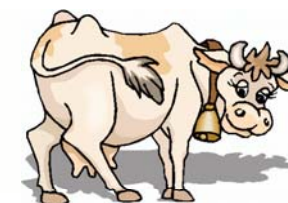
- The program design - easy to use
- See recordings from last trimming on actual cow
- Mild >< Severe (does the farmer take action in time?)
- Status on screen while trimming

Output for diagnosing

- List of all animals recorded
- List of diseases in %
- List of animals needing care after trimming
- Graphs / Visual output

Output for planning ahead

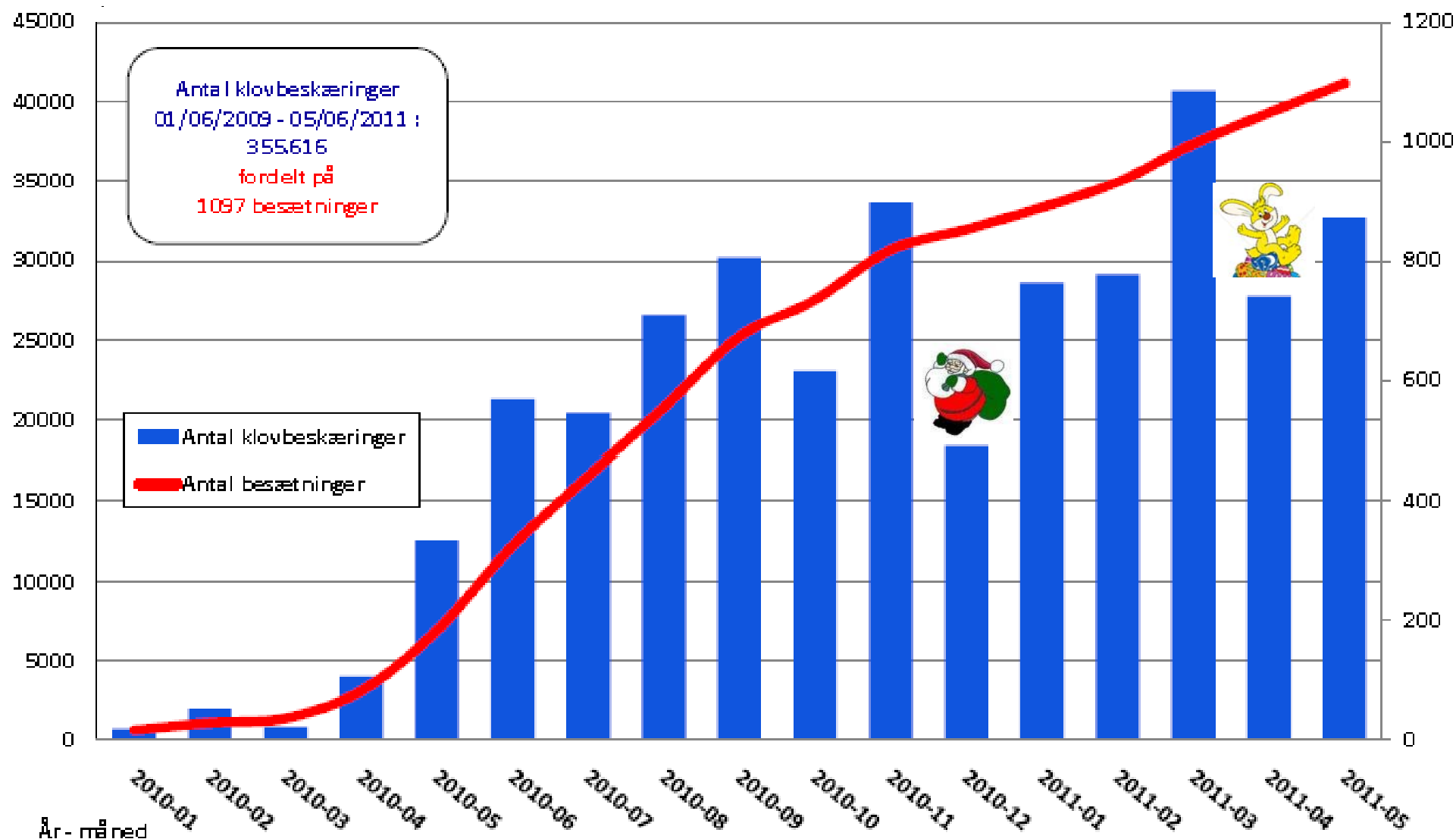
- Heifers
- Cows



Trimmings /
Month

Data from claw trimmers 2010 - 2011

Farms





What did de trimmers record until now?

(1st June 2011)

- No. of *trimmings*: 350.000
- Per month (average): 30.000 trimmings
- No. of *farms*: 1.100 (out of 4.000)



How valid are the registrations?

Claw disease	% - (trimmers)	%- (Scientist)
DD	22	22
Sole ulcers	7	6
WLD	6	8
Double sole	3	5
Sole bleeding	12	59
Heel horn erosion	5	55



Recording claw diseases in the future will get even quicker:



Electronic ear tags



Antenna







Any
questions
?

