

Herd Navigator

- a tool for the future

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"KvægIT"

(Produktionsstyringsværktøjer)



dansk kvæg

FOSS

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Q u e s t i o n s o f i n t e r e s t

- Is it possible to tell me when my cows are in heat
- Can anybody help me detect mastitis in time to act "in time"
- Is it possible to "see" if the digestion is "on track"
- Can we secure animal welfare
- Can we even provide "farmer welfare"



dansk kvæg

FOSS

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YES !!

The answer is:

Herd Navigator

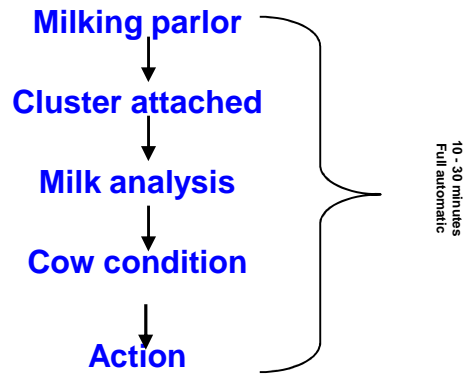
3

What is Herd Navigator?

- Herd Navigator is a herd management tool for the professional dairy farmer
- Online measurement of four important parameters in milk
- It will assist the dairy farmer in taking preventive actions within the area of reproduction, udder health and feeding

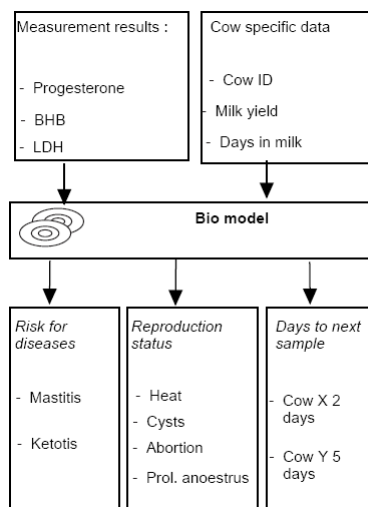


Milk sampling in-line



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The Biomodel



Perspectives for in-line progesterone

- High heat detection rate
- Find anoestrus cows early
- Find cysts early and get them treated
- Early check on pregnancy status
- Flexible heat detection time in front of PC

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Perspectives for in-line LDH

- Detect mastitis early
- Consequent treatment procedure
- Avoid most severe cases
- Keep healthy cows healthy and less chronic infected cows

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Perspectives for in-line BHB

- Follow up on cows starting up
- Use the alarm to find other health problems
- Help the cow early
- Avoid milk yield loss

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Attention list

Herd Navigator Central		Årmliste							
Gruppe	Antal	Ckr. nr.	Risiko	Ins. succes	Oprettet	Note	Framalkning	Redtger	Slet
☑ Sundhed	51								
☑ Ketose	2								
		55278-01962	0,34 →		16:02				
		55278-01937	0,33 →		04-10 16:58				
☑ Mastitis	1								
		55278-01937	1,00 →		04-10 16:58				
☑ Udeblivende brunst	1								
☑ Luteincyste	46								
☑ Føllikelcyste	1								
☑ Reproduktion	3								
☑ Brunst	3								
		55278-01578		0,0	17:17				
		55278-02112			05-10 15:53				
		55278-01996		0,4	05-10 06:02				

Cow card

Herd Navigator Central

- Startside
- Alarmliste
- Ko-kort
- Aktivitetstester
- Trænings- / behandling
 - Alle behandlinger
- Reproduktion
 - Rettidig inseminering
 - Ovulberere
 - Reproduktions-tester
 - Start ins. -kter
 - Klv. -alder, -kter
 - Reprorstus, -kter
 - Reprorngletal, -kter
 - Forventede kæbninger
- Tidlig foosterlab
- Fodring / Produktion
 - Ketosrisiko -grp.
 - Ketosrisiko
 - Ureaanlæger
 - Laktationskurser
 - Høghet, goldperiode
 - Opsætning
 - Helkeprøveudtagning
 - BHB, LDH og Prog.
 - Urea
 - Historik
 - Systemlog

Besætningsnummer:

Ckr. nr. kort: 33088-01614

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Søg

Skift enhed på alle grafer

Stamdata	
Race:	KRY
Født den:	11-06-2001
Mor:	33088-01366
Far:	36653-00733
Dyr status:	Ko
Omsætning/udsætning:	
Omsætnings:	03-05-2007
Indgået:	
Udræt:	-
Årsag:	-
Seneste kæbning:	
Laktations nr.:	5
Kæbningsdato:	16-07-2007
Dage efter:	86
Reproduktion:	
I cyklus:	Ja
Sidste ins. dato:	21-09-2007
Sidste inc. nr.:	2
Drægtig:	-
Forv. kæbning:	-
Dg. til kæbning:	-
Huld score:	
- goldning:	-
- kæbning:	-
- laktation:	-

Mælk kvalitet, indeværende laktation

Dage efter kæbning

Stofskifte, indeværende laktation

Grafvisninger

Zoom ind

Skift X-akse

Risiko

Udgattet

Rå

Risiko

Daglig yde

Grænse

DeLaval dansk kvæg FOSS

Herd Navigator

Urea in lactation groups

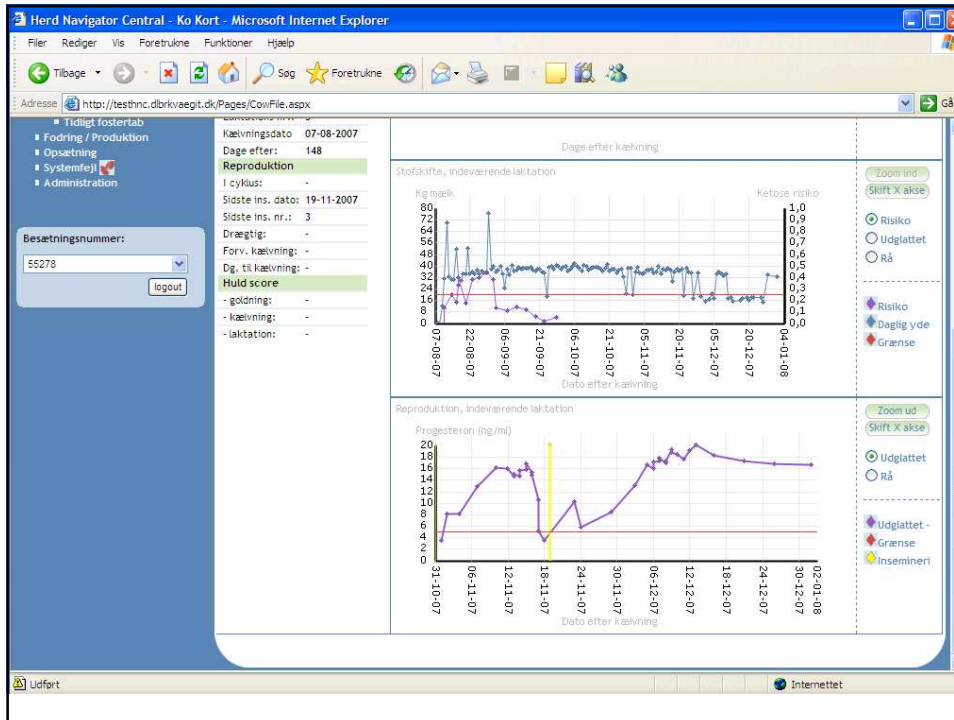
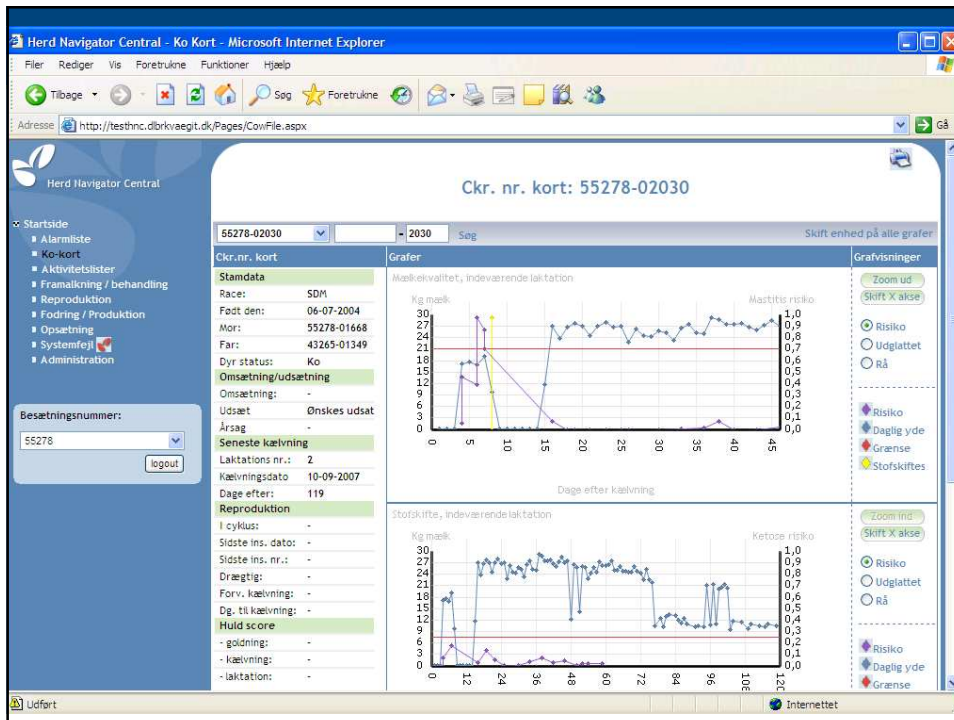
Ureamålinger

1. kalvs - tidligt 3 måneder

Endringer i opsætning Ureaniveau

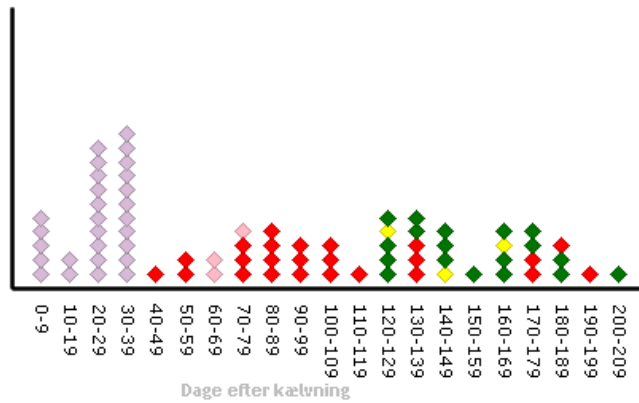
Dato

DeLaval dansk kvæg FOSS



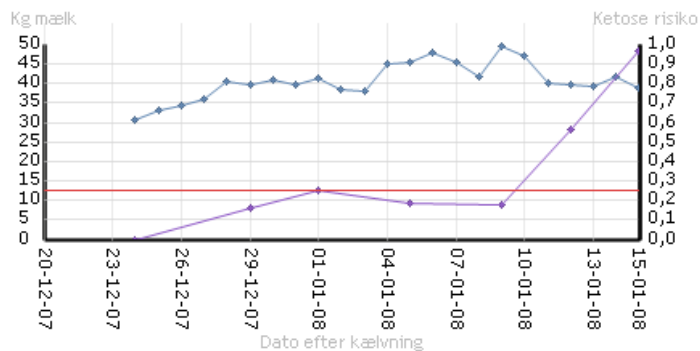
Reproduktionsstatus køer

◆ Ikke cyklisk
 ◆ Cyklisk
 ◆ Påbegyndt
 ◆ Drægtig
 ◆ Ingen måling



Eksempel på ketose ko

Stofskifte, indeværende laktation



Zoom ud
Skift X akse

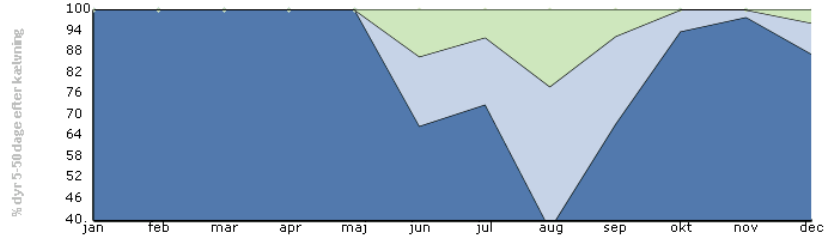
● Risiko
● Udglattet
● Rå

◆ Risiko
◆ Daglig yde
◆ Grænse

Ketoserisiko, grupperet

Alle køer

- Raske 0,0 - 0,3
- Subkliniske 0,3 - 0,8
- Kliniske 0,8 - 1,0



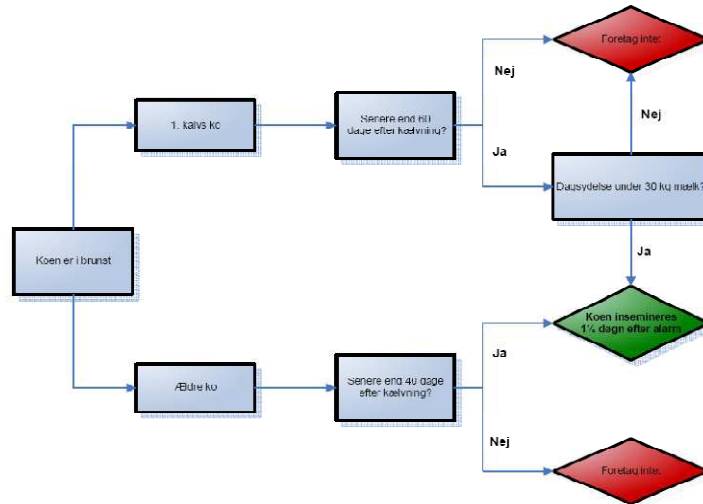
Måned	jan	feb	mar	apr	maj	jun	jul	aug	sep	okt	nov	dec
Antal dyr	47	34	23	11	15	15	26	32	40	48	45	55
Raske < 0,3; % dyr	100	100	100	100	100	67	73	38	68	94	98	87
Subkliniske 0,3 - 0,8; % dyr	0	0	0	0	0	20	19	41	25	6	2	9
Kliniske > 0,8; % dyr	0	0	0	0	0	13	8	22	8	0	0	4

Information from Herd Navigator attention list

Other observations

Standard Operation Procedure

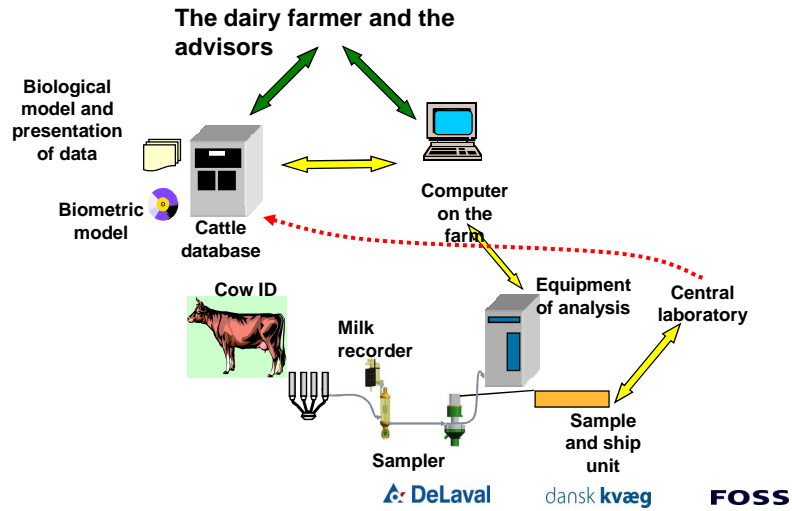
Special attention, insemination, treatment



New concept Herd Navigator

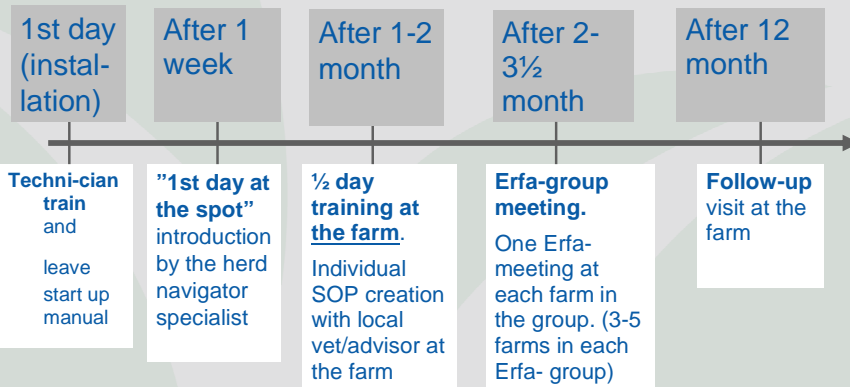
- Development project including several partners
 - Danish Cattle Federation
 - FOSS
 - DeLaval
 - Lattec
- Research made at
 - The Faculty of Agricultural Science, Aarhus University
 - KFC
- Prototype is in test in ordinary herds (test farms)

On-farm analysis and proactive herd management



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Time axis for education



Other tings:

- Telephone counselling
- Extra visits (follow-up visit after 1/2 year, SOPs)
- Advanced training

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Status

- Test on 6 test farms 3-5 year
 - Different breeds
 - High and low management
 - Different sizes
 - One ecological farm
- Ready for DeLaval Parlors 2*14
- Sales release June 2008

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PIP calculations

DKR. pr. cow pr. year

Testfarm	Ketosis benefit	Mastitis benefit	Other deseases	Reproduction	Urea	Intangibles	Total benefit
1	256	1397	0	295	+?	+?	1948 + ?
2	104	439	66	294	+?	+?	903 +?
3	115	779	62	824	+?	+?	1780+?
4	232	633	69	506	+?	+?	1438+?
5	284	974	251	437	+?	+?	1944+?
6	206	350	0	313	+?	+?	867+?

Reproduction

Expected goals are:

- Insemination rate (detected heats inseminated on), 85%
- Pregnancy rate (10% higher than now situation) except testfarm 5 raising (17 % in absolute value)
- Benefit (more heifers sold and higher milk yield)

K e t o s i s

- Treatment of mild cases of ketosis early gaining app. 500-700 DKR/case, because milk yield loss is avoided.
- Avoidance of 70 to 100% of clinical ketosis cases changing them to mild gaining app. 2,275 DKR/case

M a s t i t i s

- Severe cases are reduced to mild mastitis cases
30-50% reduction. Gaining app. 3,300 DKR/case
- Mild cases are reduced to 50% cost price , since
early treatment eliminate other cost than treatment
cost. Gaining app. 1,500 DKR/case
- Two farms did not expect any reduction in severe
cases

Perspectives for Herd Navigator

- **Surveillance of more cows with less labour**
- **Act proactive to diseases**
- **Improve reproductive efficiency**
- **Keep healthy cows healthy**

- **Reference farms in Sweden**

- **Ready for 2*28**
- **A generic solution – others than DeLaval**
- **Ready for VMS and AMS**

If you want to know more...

www.herdnavigator.com

Thank you for your attention