

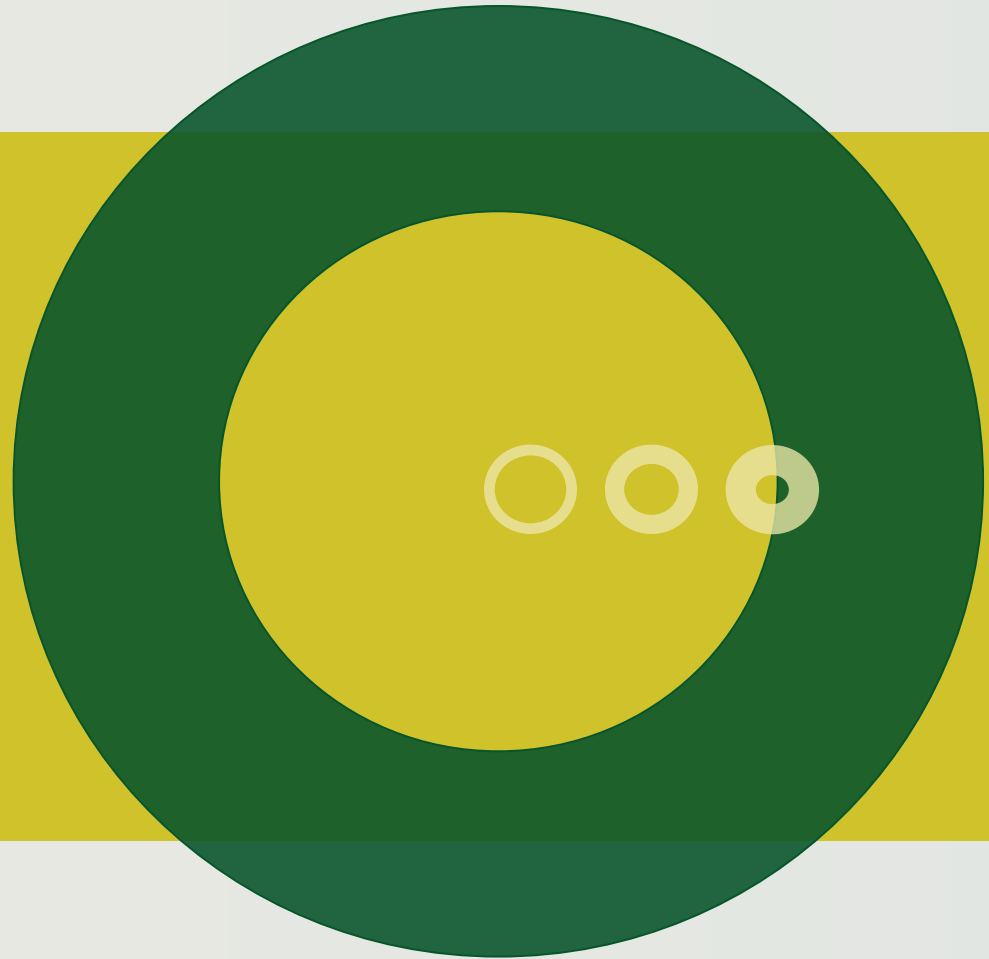


# Key Performance Indicators – A system to improve daily management

Manufactures  
showcase

Aarhus 2013

Johannes Frandsen



# Presentation of a new tool for daily management

- Developed as part of the total management system; DMS (Dairy Management System)
  - Feeding
  - Budget
  - Follow up, technical and economic
- Developed by Knowledge Center for Agriculture, Cattle Department
- Based on several research projects aiming at transferring raw data into relevant decision support
- Version 1 – more versions are expected to follow

## Do we need a new KPI tool?

Arguments against - cons

- There are already lots of different management tools
- There are already (to) many data, information and recommendation around the dairy farmer

Arguments for - pros

- Bigger herds demands an easy overview
- The Danish Central Cattle Database contains data covering all business areas “around” the dairy production
- Nobody collects all data and calculate KPI's in one place



## Background

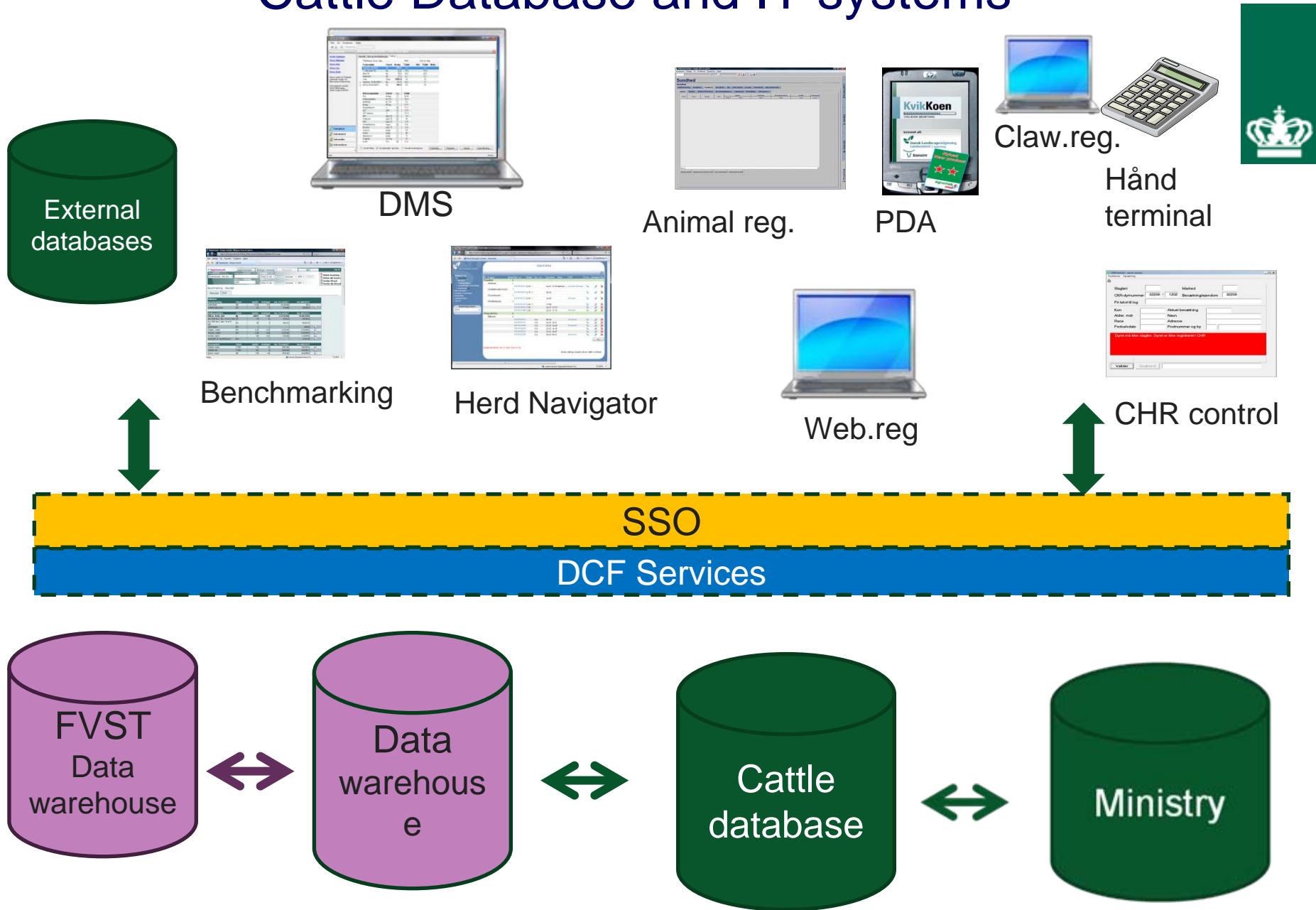
Data – lots of data..

- Milk production
- Reproduction
- Health
- Feeding

Data ware house

- Daily updated with newest raw data
- Daily calculation for KPI's

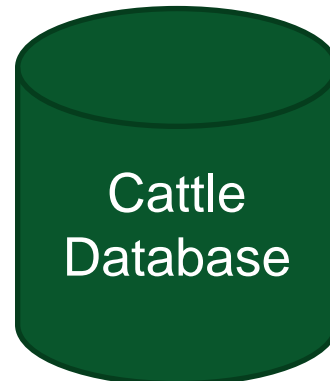
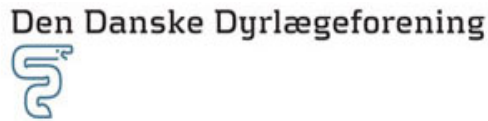
# Cattle Database and IT systems



# Communication with external databases



Destron Fearing™





Topic	Status	Key figure (unit)	Achieved	Alarm limit	Reporting period	Updated
Milk		Milk delivered (kg/day)	8.906	Min 7.835 \ Max 9.072	Latest delivery	13-05-13
		Milk quality (number of deductions)	0		Latest measurement	12-05-13
Reproduction		Inseminations of cows (Numbers)	8	Min 3	Last 7 days	14-05-13
		Inseminations of heifers (Numbers)	1	Min 2	Last 7 days	14-05-13
		Not pregnancy examined cows (Numbers)	4	Max 0	Last day	14-05-13
		Not pregnancy examined heifers (Numbers)	0	Max 0	Last day	14-05-13
Health		Disease treatment, cows (Numbers)	0	Max 4	Last 7 days	14-05-13
		New infection, lactation (%)	8	Max 15	Last milk recording	17-04-13
		New infection, dry period (%)	14	Max 35	Last milk recording	17-04-13
		Dead animals (Numbers)	0	Max 1	Last 7 days	14-05-13
Feeding		Energy efficiency (%)	97	Min 93	Last feed control	31-03-13
		Milk minus feed cost (kr/kg ECM)	1,38	Min 1,50	Last feed control	31-03-13



# The KPI Tool

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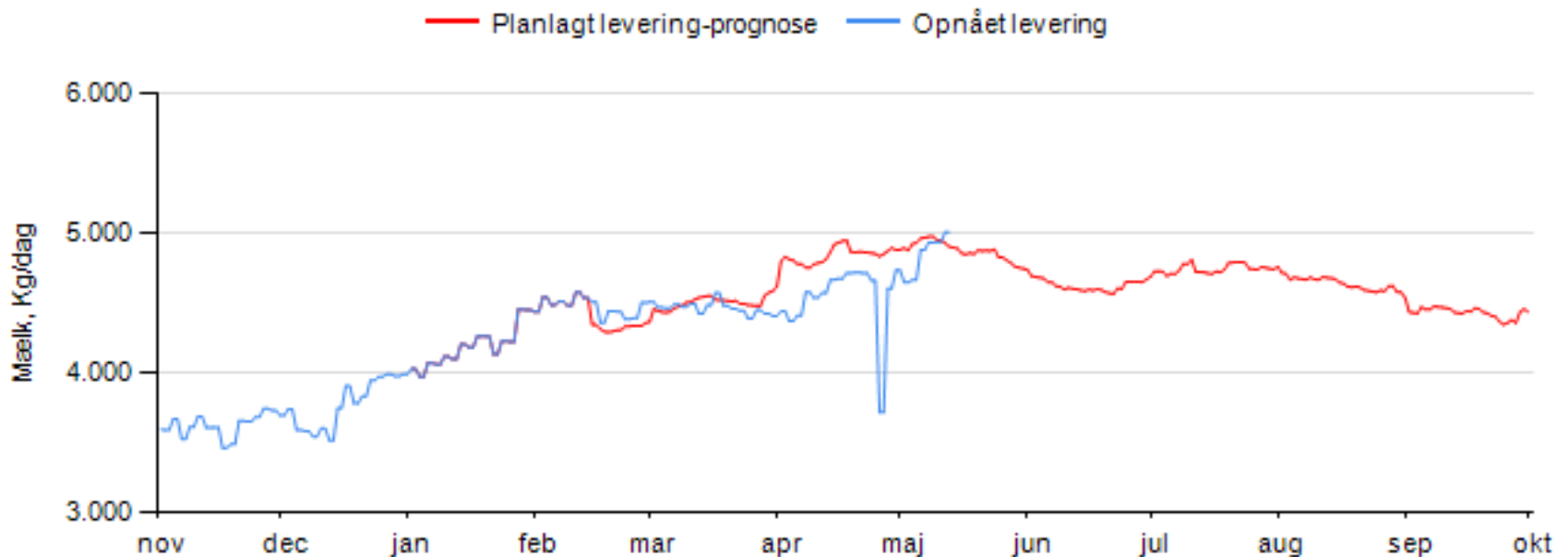


# Milk production

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		Milk quality (number of deductions)	0		Latest measurement	12-05-13
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# Planned and delivered milk

## Mælk leveret til mejeri



### Opnået levering:

**Indtil seneste mælkeafregning:** Er midlertidigt beregnet som en simpel fordeling af leverancer pr. dag.

**De seneste dage:** Er beregnet ud fra grundoplysninger om Malkesystem (AMS, konventionel) og Døgnskæring.

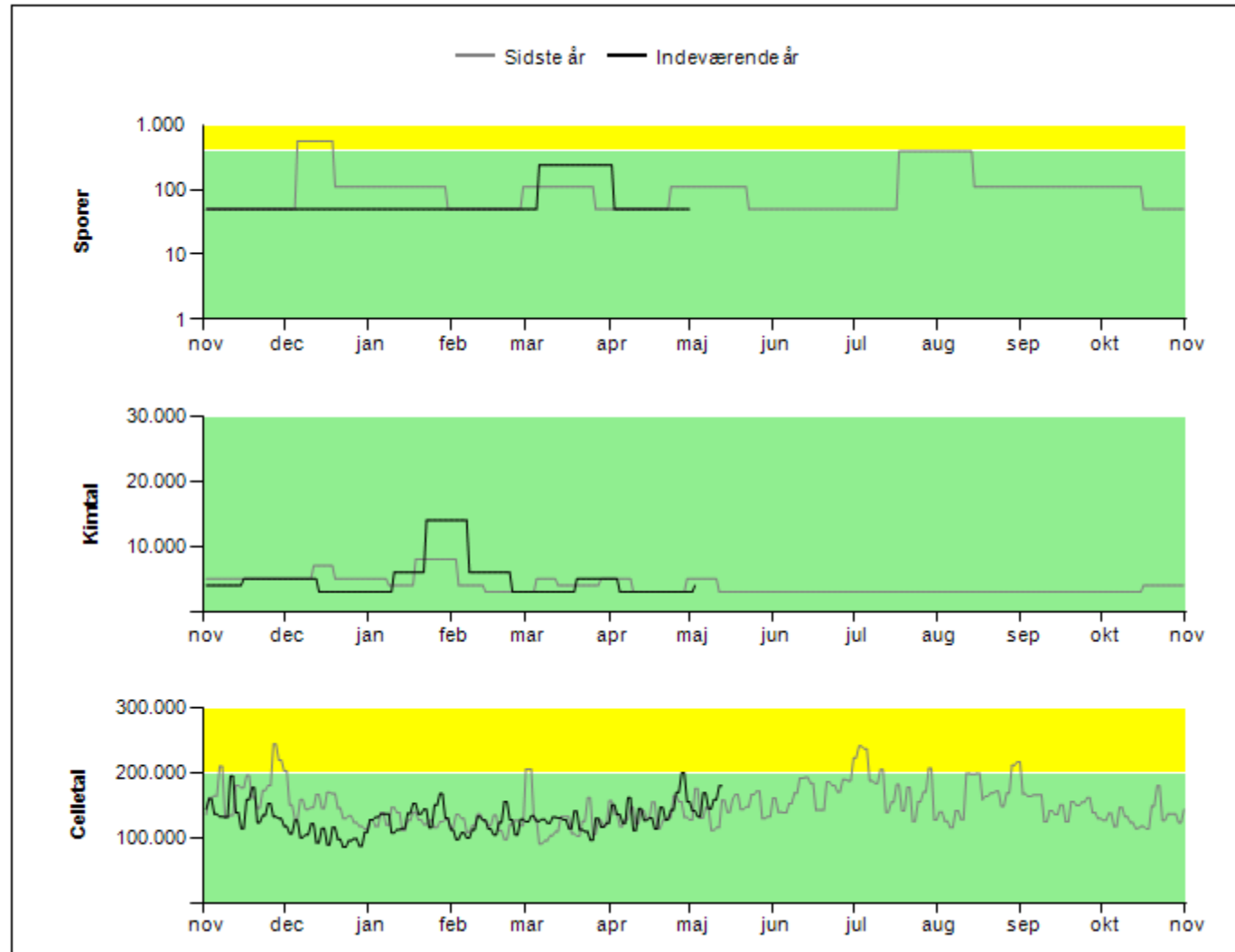
Angivelse af mulig delleverance bruges ikke.



# Milk quality

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# The development of milk quality

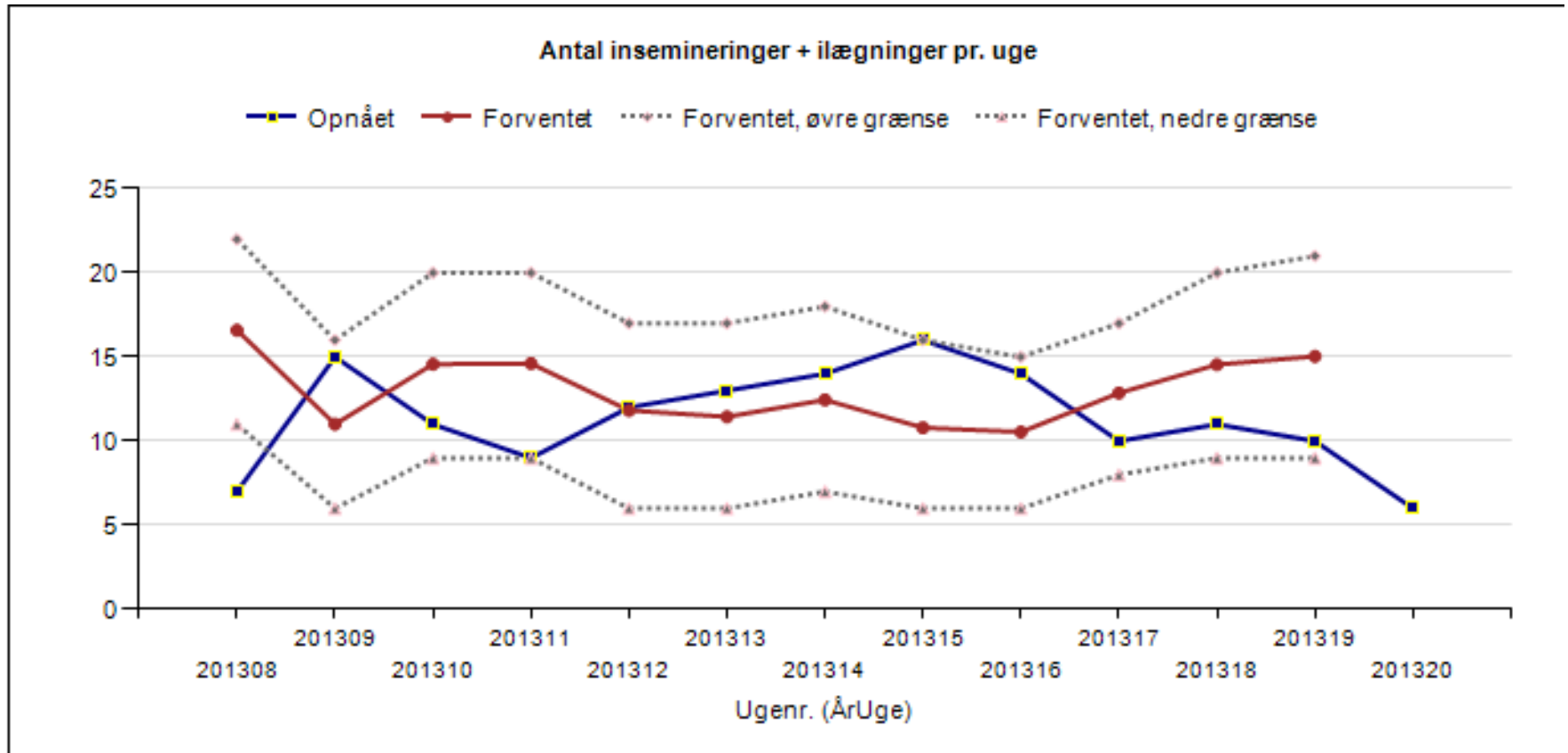




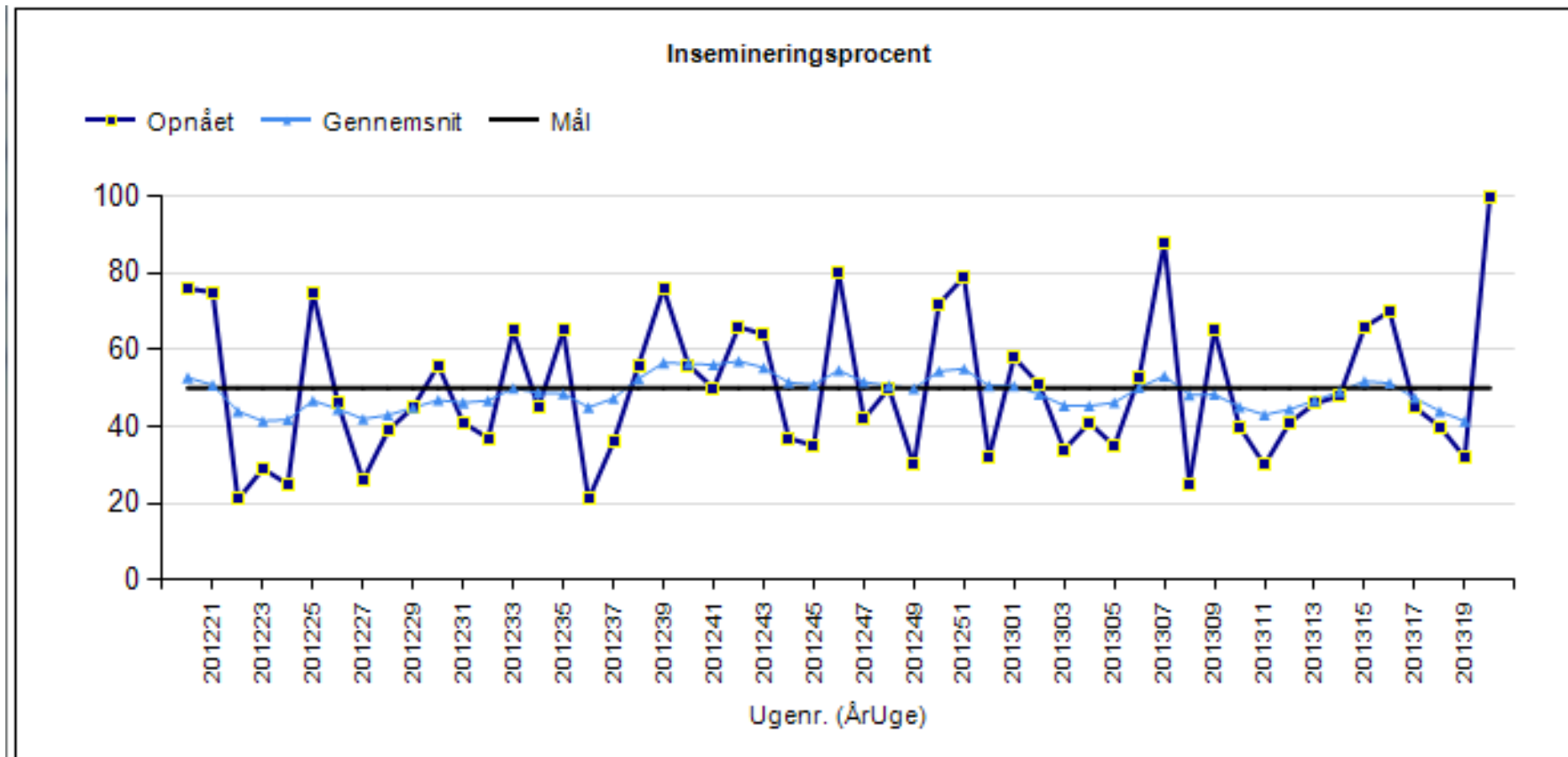
# Reproduction

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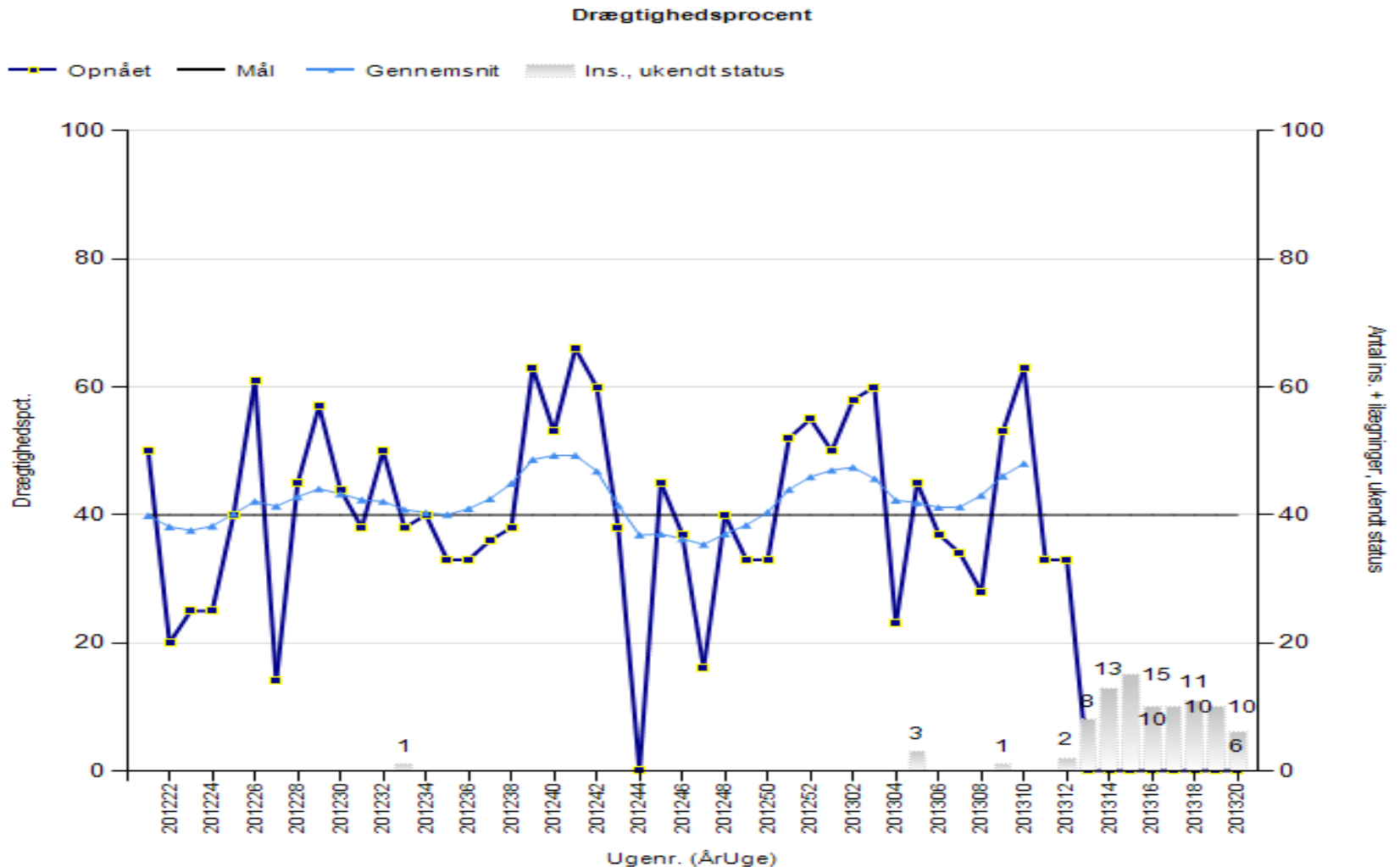
# Follow up on inseminations



# Follow up in insemination percent



# Follow up on pregnancy rates







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# Diseases pr week

Sygdomsgruppe	Seneste 7 dage	Tilfælde pr. uge sidste 14 uger																														
Yverbetændelse	0	<table border="1"><caption>Yverbetændelse - Tilfælde pr. uge</caption><thead><tr><th>Uge</th><th>Tilfælde</th></tr></thead><tbody><tr><td>07</td><td>0</td></tr><tr><td>08</td><td>0</td></tr><tr><td>09</td><td>0</td></tr><tr><td>10</td><td>0</td></tr><tr><td>11</td><td>0</td></tr><tr><td>12</td><td>0</td></tr><tr><td>13</td><td>0</td></tr><tr><td>14</td><td>1</td></tr><tr><td>15</td><td>0</td></tr><tr><td>16</td><td>0</td></tr><tr><td>17</td><td>0</td></tr><tr><td>18</td><td>0</td></tr><tr><td>19</td><td>0</td></tr><tr><td>20</td><td>0</td></tr></tbody></table>	Uge	Tilfælde	07	0	08	0	09	0	10	0	11	0	12	0	13	0	14	1	15	0	16	0	17	0	18	0	19	0	20	0
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Fordøjelses- og stofskiftelidelser	3	<table border="1"><caption>Fordøjelses- og stofskiftelidelser - Tilfælde pr. uge</caption><thead><tr><th>Uge</th><th>Tilfælde</th></tr></thead><tbody><tr><td>07</td><td>0</td></tr><tr><td>08</td><td>4</td></tr><tr><td>09</td><td>1</td></tr><tr><td>10</td><td>3</td></tr><tr><td>11</td><td>3</td></tr><tr><td>12</td><td>0</td></tr><tr><td>13</td><td>1</td></tr><tr><td>14</td><td>1</td></tr><tr><td>15</td><td>3</td></tr><tr><td>16</td><td>0</td></tr><tr><td>17</td><td>2</td></tr><tr><td>18</td><td>0</td></tr><tr><td>19</td><td>3</td></tr><tr><td>20</td><td>0</td></tr></tbody></table>	Uge	Tilfælde	07	0	08	4	09	1	10	3	11	3	12	0	13	1	14	1	15	3	16	0	17	2	18	0	19	3	20	0
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# Mortality pr week

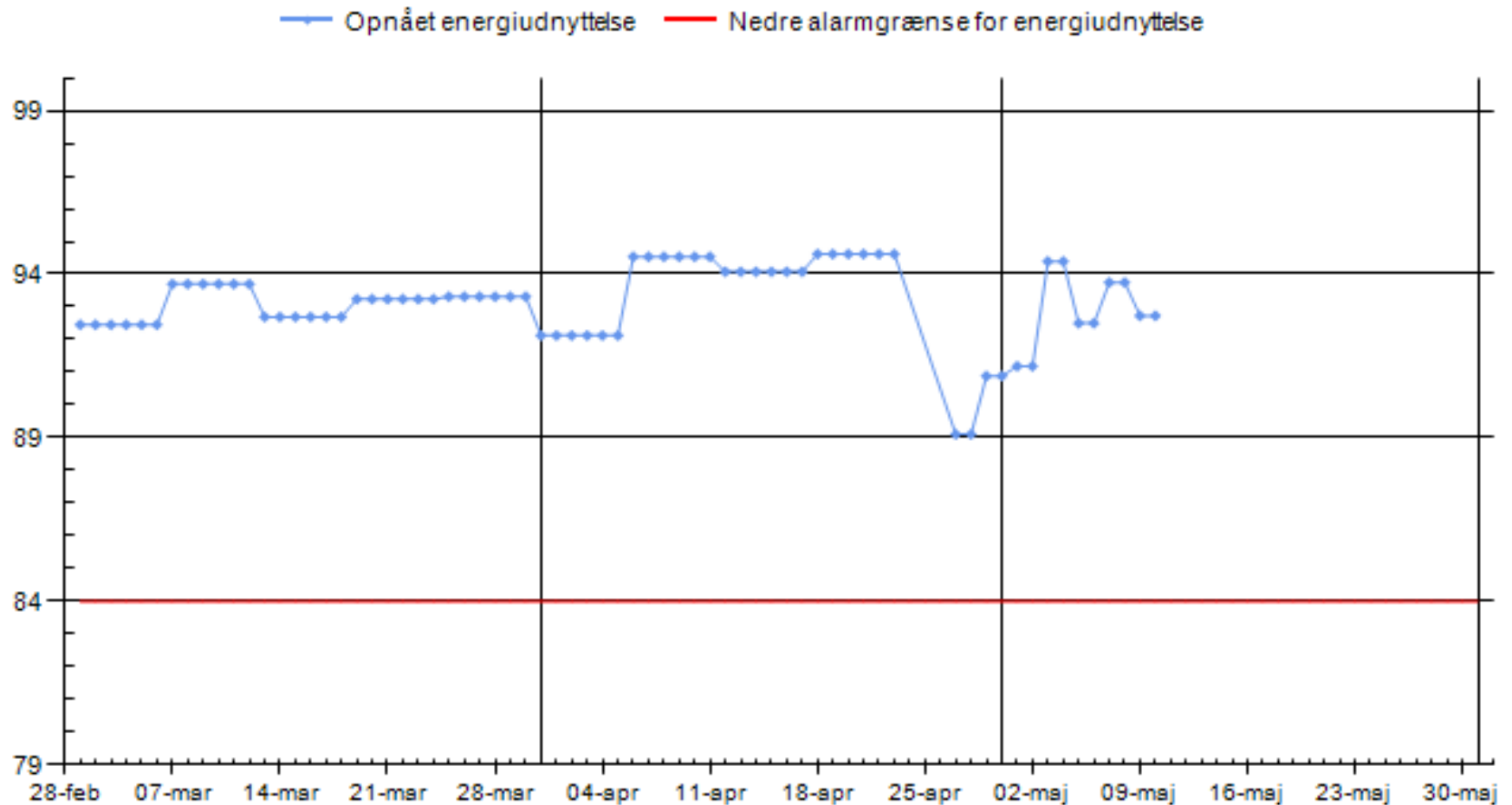
Type af Dødelighed	Seneste 7 dage	Tilfælde per. uge sidste 14 uger																														
Antal dødfødte kalve	1	<table border="1"> <caption>Weekly mortality of stillborn calves</caption> <thead> <tr><th>Uge</th><th>Tilfælde</th></tr> </thead> <tbody> <tr><td>07</td><td>1</td></tr> <tr><td>08</td><td>0</td></tr> <tr><td>09</td><td>1</td></tr> <tr><td>10</td><td>1</td></tr> <tr><td>11</td><td>0</td></tr> <tr><td>12</td><td>2</td></tr> <tr><td>13</td><td>1</td></tr> <tr><td>14</td><td>0</td></tr> <tr><td>15</td><td>2</td></tr> <tr><td>16</td><td>0</td></tr> <tr><td>17</td><td>1</td></tr> <tr><td>18</td><td>0</td></tr> <tr><td>19</td><td>1</td></tr> <tr><td>20</td><td>0</td></tr> </tbody> </table>	Uge	Tilfælde	07	1	08	0	09	1	10	1	11	0	12	2	13	1	14	0	15	2	16	0	17	1	18	0	19	1	20	0
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Antal døde 1 - 180 dage	0	<table border="1"> <caption>Weekly mortality of calves aged 1-180 days</caption> <thead> <tr><th>Uge</th><th>Tilfælde</th></tr> </thead> <tbody> <tr><td>07</td><td>0</td></tr> <tr><td>08</td><td>1</td></tr> <tr><td>09</td><td>0</td></tr> <tr><td>10</td><td>0</td></tr> <tr><td>11</td><td>0</td></tr> <tr><td>12</td><td>0</td></tr> <tr><td>13</td><td>0</td></tr> <tr><td>14</td><td>0</td></tr> <tr><td>15</td><td>0</td></tr> <tr><td>16</td><td>0</td></tr> <tr><td>17</td><td>0</td></tr> <tr><td>18</td><td>0</td></tr> <tr><td>19</td><td>0</td></tr> <tr><td>20</td><td>0</td></tr> </tbody> </table>	Uge	Tilfælde	07	0	08	1	09	0	10	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
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Antal døde køer	1	<table border="1"> <caption>Weekly mortality of cows</caption> <thead> <tr><th>Uge</th><th>Tilfælde</th></tr> </thead> <tbody> <tr><td>07</td><td>0</td></tr> <tr><td>08</td><td>0</td></tr> <tr><td>09</td><td>0</td></tr> <tr><td>10</td><td>0</td></tr> <tr><td>11</td><td>0</td></tr> <tr><td>12</td><td>0</td></tr> <tr><td>13</td><td>0</td></tr> <tr><td>14</td><td>1</td></tr> <tr><td>15</td><td>1</td></tr> <tr><td>16</td><td>0</td></tr> <tr><td>17</td><td>0</td></tr> <tr><td>18</td><td>0</td></tr> <tr><td>19</td><td>0</td></tr> <tr><td>20</td><td>1</td></tr> </tbody> </table>	Uge	Tilfælde	07	0	08	0	09	0	10	0	11	0	12	0	13	0	14	1	15	1	16	0	17	0	18	0	19	0	20	1
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Øvrige døde kreaturer	0	<table border="1"> <caption>Weekly mortality of other animals</caption> <thead> <tr><th>Uge</th><th>Tilfælde</th></tr> </thead> <tbody> <tr><td>07</td><td>0</td></tr> <tr><td>08</td><td>0</td></tr> <tr><td>09</td><td>0</td></tr> <tr><td>10</td><td>0</td></tr> <tr><td>11</td><td>0</td></tr> <tr><td>12</td><td>0</td></tr> <tr><td>13</td><td>0</td></tr> <tr><td>14</td><td>0</td></tr> <tr><td>15</td><td>0</td></tr> <tr><td>16</td><td>0</td></tr> <tr><td>17</td><td>0</td></tr> <tr><td>18</td><td>0</td></tr> <tr><td>19</td><td>0</td></tr> <tr><td>20</td><td>0</td></tr> </tbody> </table>	Uge	Tilfælde	07	0	08	0	09	0	10	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0	20	0
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# Feeding

Topic	Status	Key figure (unit)	Achieved	Alarm limit	Reporting period	Updated
Milk		Milk delivered (kg/day)	8.906	Min 7.835 \ Max 9.072	Latest delivery	13-05-13
		Milk quality (number of deductions)	0		Latest measurement	12-05-13
Reproduction		Inseminations of cows (Numbers)	8	Min 3	Last 7 days	14-05-13
		Inseminations of heifers (Numbers)	1	Min 2	Last 7 days	14-05-13
		Not pregnancy examined cows (Numbers)	4	Max 0	Last day	14-05-13
		Not pregnancy examined heifers (Numbers)	0	Max 0	Last day	14-05-13
Health		Disease treatment, cows (Numbers)	0	Max 4	Last 7 days	14-05-13
		New infection, lactation (%)	8	Max 15	Last milk recording	17-04-13
		New infection, dry period (%)	14	Max 35	Last milk recording	17-04-13
		Dead animals (Numbers)	0	Max 1	Last 7 days	14-05-13
Feeding		Energy efficiency (%)	97	Min 93	Last feed control	31-03-13
		Milk minus feed cost (kr/kg ECM)	1,38	Min 1,50	Last feed control	31-03-13

# Feeding efficiency



## Status on the KPI Tool today

- Released January 2013
- Bought by 150 farmers so far
- Already high usage by advisors
- Increasing “counts” on the reports
  
- Challenges about real time update of data – especially milk
- Challenges about handling exceptions
- Lots of new wishes (demands) to the tool



# Thanks for your attention

More information?

Meet us in the **exhibition area** or contact us  
via **VFL.DK**

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