

# Longevity and culling rate: how to improve?



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LIVESTOCK RESEARCH  
WAGENINGEN UR

# Content

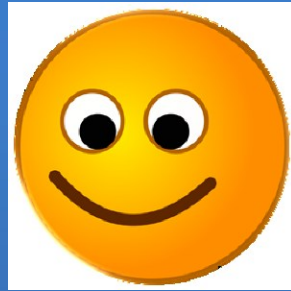
1. Summary improvement plan NL
2. Summary improvement plan CN
3. More detailed approach NL short term
4. More detailed approach NL long time
5. Discussion / questions raised



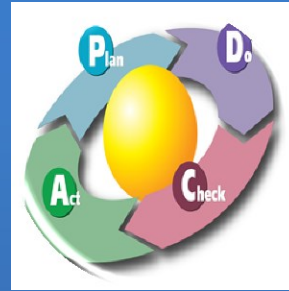
# How to improve longevity: NL approach



Create awareness  
on added value:  
demo farms and  
tool to show  
advantage



Create incentives  
to stimulate  
farmers: training,  
bonus on milk  
price, etc.



Plan-Do-Check-  
Adjust to work on  
culling reasons



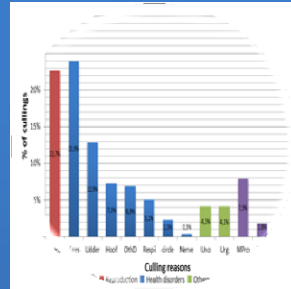
Training labour  
organization to  
avoid suboptimal  
cow care

Integrated approach

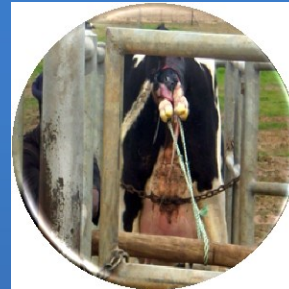
# How to improve longevity: CN approach



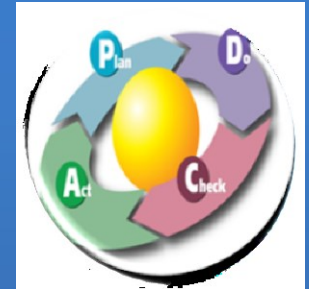
## Show current position by benchmarking



## Identify major reasons for culling and solutions



Investigate  
culled fresh  
cows (< 30  
DIM)



# Farm action plan and monitoring

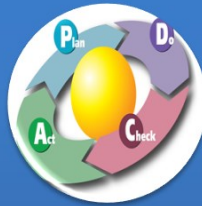
## Integrated approach



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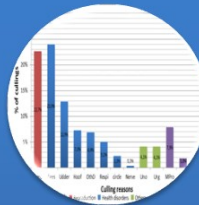
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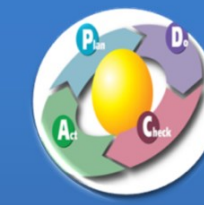
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Farm action  
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# Bottlenecks and solutions to increase longevity at farm level

## Bottlenecks

- Poor strategic and operational management
- Economic suboptimal decisions about culling and replacement/calf rearing
- Herd management: little insight into ratios and risk factors
- Feeding in particular in transition period
- Breeding
- Antibiotics policy
- Calf rearing
- Housing
- Consultants: quality advice and commercial interests

## Solutions

- Better strategic and operational management (PDCA-approach / targets + monitoring, insight into profitability of improvement)
- Awareness about and motivation for longevity: education and sense of urgency
- Externe stimuli: milk price incentive?
- Decreasing work load and better labour organization

Source: qualitative own research with veterinarians, feed advisors and other experts, 2013



# Long term agenda longevity

1. New housing systems: floor, laying bed, space, copy natural habitat
2. More tolerance of herd manager: continue longer with extra inseminations and extra treatments
3. Feeding and breeding: focus on a more flat lactation curve
4. Lower milk production: less physiologic stress
5. Higher energy-intake
6. Focus feeding on increasing longevity instead of high production
7. Adjust feeding to lactation stage
8. More insight into resistance and early-warning tools
9. More natural behaviour of cows



# Evaluation and monitoring by performance indexes

Performance indexes needed for integrated assesment:

1. Longevity
2. Production
3. Culling
4. Transition management
5. Udder health
6. Fertility
7. Claw health
8. Rearing of young stock
9. Use of antibiotics

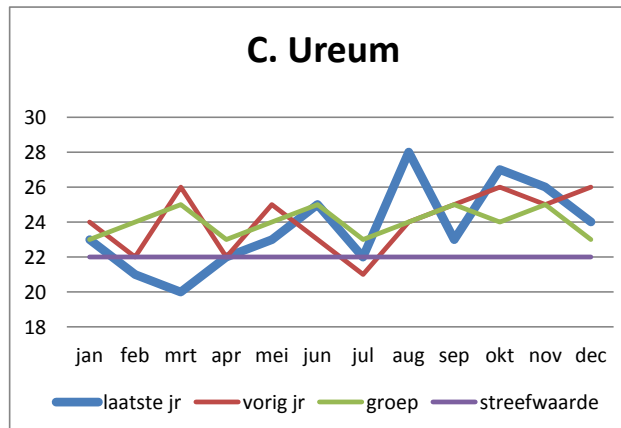
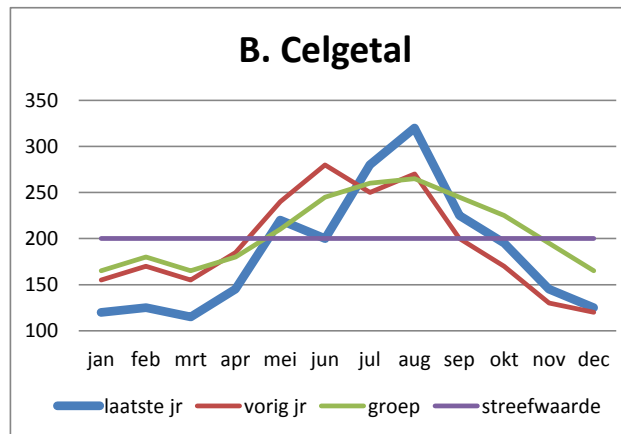
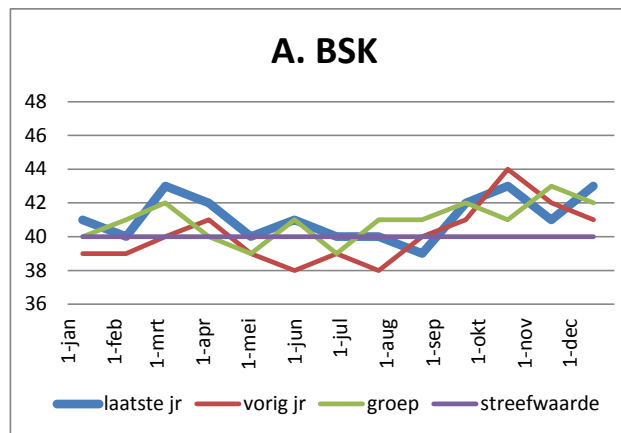
*New developments:*

- *Use of targets*
- *Record cow disease incidencies*
- *Benchmarking with other farms*
- *Use indexes in PDCA-approach*





# Appoint performance indexes and Key performance indexes



# Performance indexes monthly monitoring

Theme	Performance indexes (farm averages)
1 Production	<ul style="list-style-type: none"> <li>• Milk production per cow (in real kg and in age and calving season corrected kg)</li> <li>• Fat and protein content</li> <li>• Urea content milk</li> <li>• Milk production, fat and protein content, age and calving season corrected milk for 5 groups (categorized for days in milk)</li> <li>• Idem for 3 groups categorized by parity (first calf, second calf and third calf and higher)</li> </ul>
2 Transition management	<ul style="list-style-type: none"> <li>• % cows with %fat / %protein &gt; 1.25</li> <li>• % cows scoring positive for ketose based on milk sample</li> <li>• % cows with %fat / %protein &lt; 1</li> <li>• % transition disease incidences</li> </ul>
3 Udder health	<ul style="list-style-type: none"> <li>• Cell count bulk tank</li> <li>• % mastitis incidences</li> <li>• % successfully treated during lactation</li> <li>• % New cows with increased cell count during lactation</li> </ul>
4 Fertility	<ul style="list-style-type: none"> <li>• Days open</li> <li>• Inseminations per cow</li> </ul>
5 Claw health	<ul style="list-style-type: none"> <li>• % incidences of claw disorders</li> </ul>
6 Rearing of young stock	<ul style="list-style-type: none"> <li>• Age at first insemination</li> <li>• Inseminations per heifer</li> <li>• % diseases calves (during period 0-60 days)</li> </ul>
7 Treatment with antibiotics	<ul style="list-style-type: none"> <li>• Animal days-dosage-number</li> </ul>

# Continuous improvement plan by PDCA

Improve herd management by Plan-Do-Check-Adjust:

- Evaluation of herd KPI's
- Appoint weaknesses and targets
- Make action plan
- Implement plan
- Evaluate and adjust



Executed by: veterinarians and farmers

# Strategies at farm level

*Goals: health and longevity*

1. PDCA-approach
2. Improve decisions on culling and replacement, a.o. more tolerance before culling: accept longer calving interval, more treatments and production decrease
3. More preventative measures, a.o. optimize feeding and production on cow level
4. Improve labour organisation / use standard operating procedures
5. Breeding on longevity
6. Improve animal welfare in stables

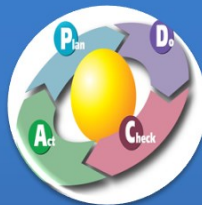




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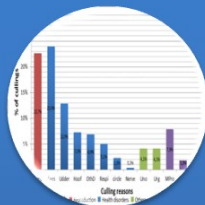
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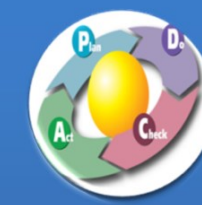
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# Discussion / questions raised

1. From emails CN-NL in April 2016:
  - Relationship between productive life and culling %
  - Calculation of culling rate
2. Influence of herd growth on culling rate
3. New CN results
4. Other topics

