Somatic Cell Count – added value due to new benchmarks and differentiation

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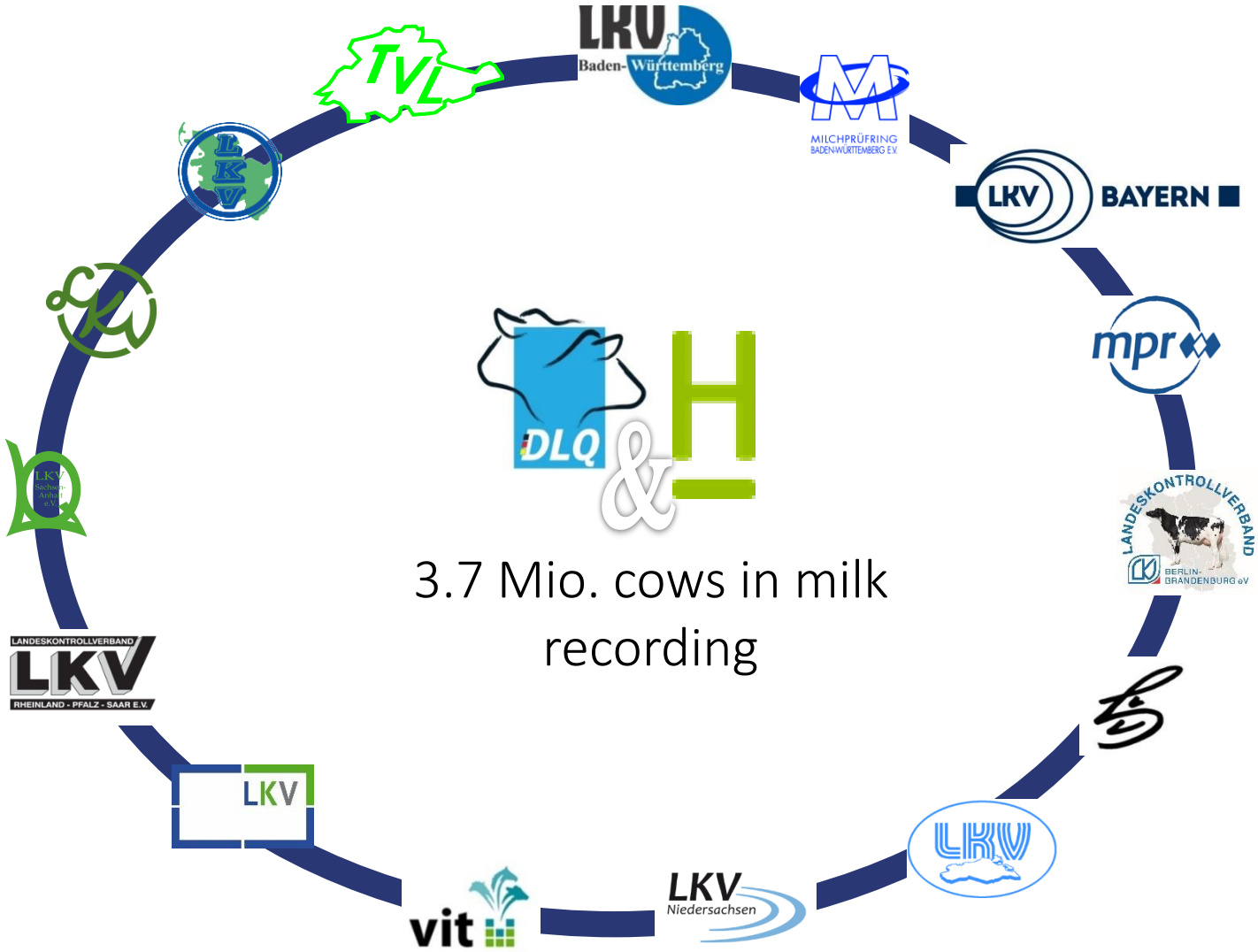
ICAR Udder health meeting I June 13th 2017 I Edinburgh

Udder Health Project



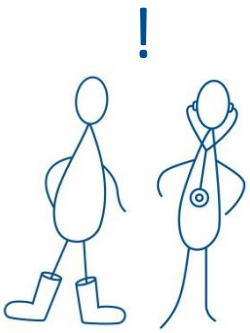
With support from

Federal Ministry of Food and Agriculture

by decision of the German Bundestag

Udder Health Program

Analysing facts instead of using gut instinct



Risc factors

calving

starter group

changes in management

last 1/3 of lactation

DP

calving

rate of heifer mastitis

new infection - & cure rate DP

New infection rate during lactation

animals with poor prognosis

percentage of udder healthy animals

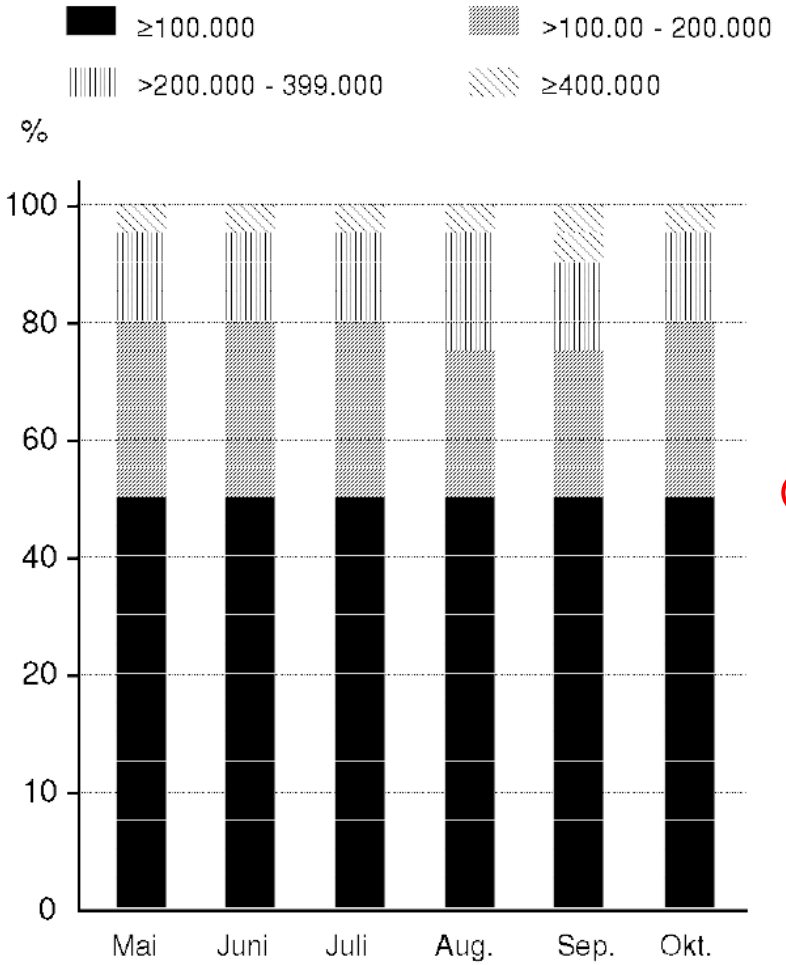
Key figures for udder health management

New Udder Health Report

- Key figures are calculated based on SSC in monthly milk yield recording
- Displayed in tables and charts either in a paper report or online
- For all 48.000 farms
- Benchmarking: regional reference values of the 25% best farms are reported for each key figure
- Nationwide standardised and automated calculation (DLQ, 2014)
  - Cell count threshold 100.000 cells: high sensitivity

1. Proportion of cows with healthy udders

Anteil Tiere in Zellzahlklassen (in %)



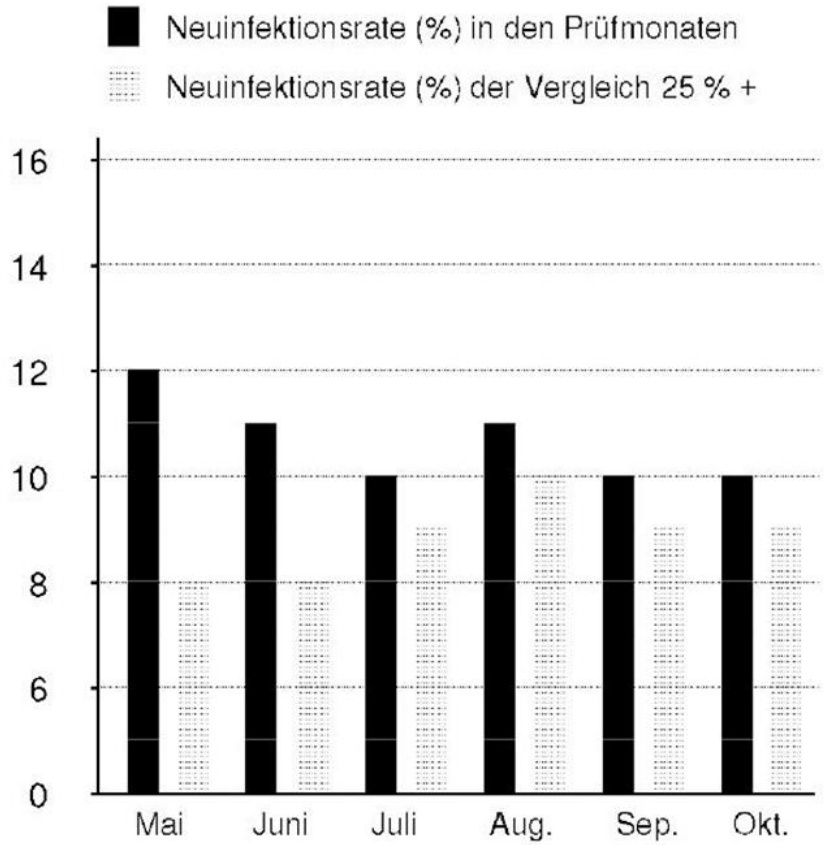
Eutergesunde Tiere

Anteil der Tiere mit ≤ 100.000 Zellen/ml an allen laktierenden Tieren in der aktuellen MLP

Zellzahlklassen	Anzahl	Anteil (%)	Vergleich 25 % +
ZZ ≤ 100.000	166	**55**	76
ZZ > 100.000 - 200.000	60	20	
ZZ > 200.000 - 399.000	52	17	
ZZ ≥ 400.000 - 200.000	22	7	

2. New infection rate during lactation

a) nach Prüfmonaten (in %)



b) nach Laktationstagen

Laktationstage	<100	101-200	201-300	>300	Total
Anzahl eutergesunde Tiere im Vormonat	80	40	20	20	160
Anzahl Neuinfektionen	10	2	0	4	16
Anteil Neuinfektionen (%)	13	5	0	20	**10**

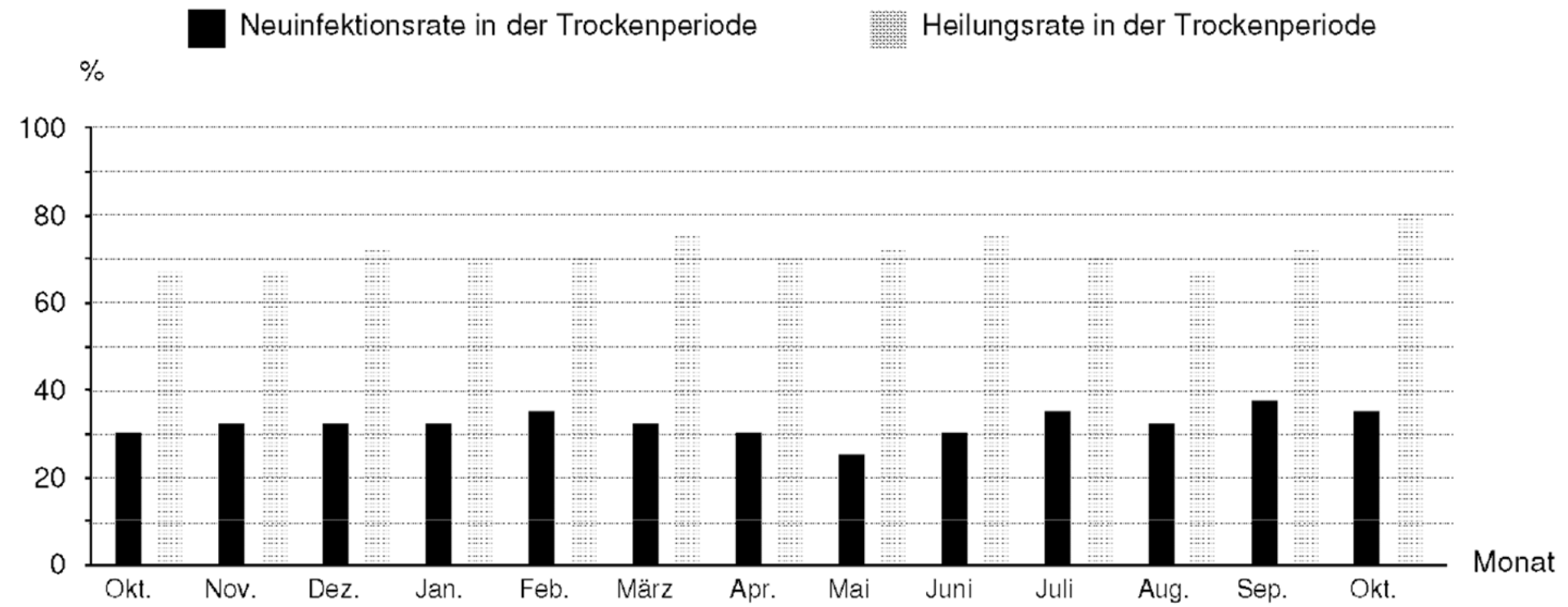
3. Cows with poor prognosis

Prüfmonat	Mai	Juni	Juli	Aug.	Sep.	Okt.
Anzahl geprüfter Tiere	280	280	300	300	290	300
Anzahl betroffener Tiere	6	6	18	18	6	6
Anteil betroffener Tiere (%)	2	2	6	6	2	**2**
Rate Vergleich 25 % + (%)	2	2	1	1	1	1

Auflistung der betroffenen Tiere

Ohrmarke	Name	Stall-Nr.	Zellzahlen (in 1.000 Zellen/ml)			Lakt.-Nr.	Lakt.-Tag
			Aug.	Juli	Aug.		
DE 03 999 12344		111	772	1.100	1.000	3	254
DE 03 999 12345		112	1.000	779	854	3	225
DE 03 999 12346		113	854	888	965	3	338
DE 03 999 12400		211	714	825	954	3	200

4. Dry cow new infection and cure rate

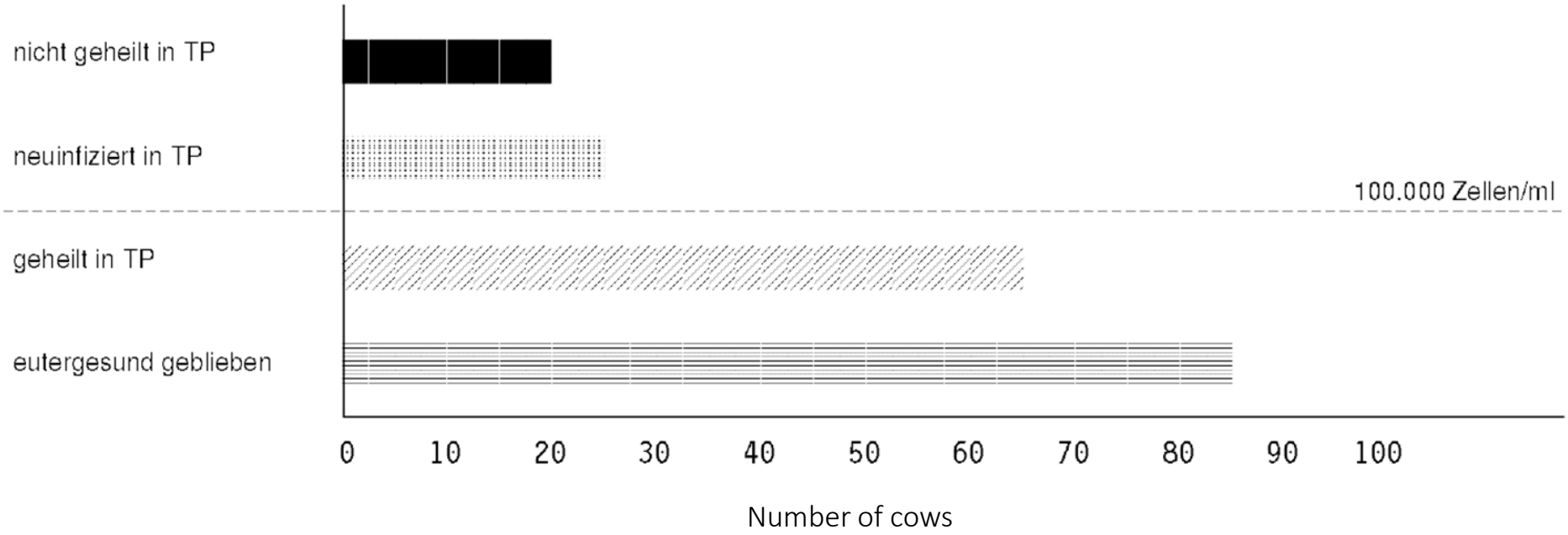


4. Dry cow new infection and cure rate

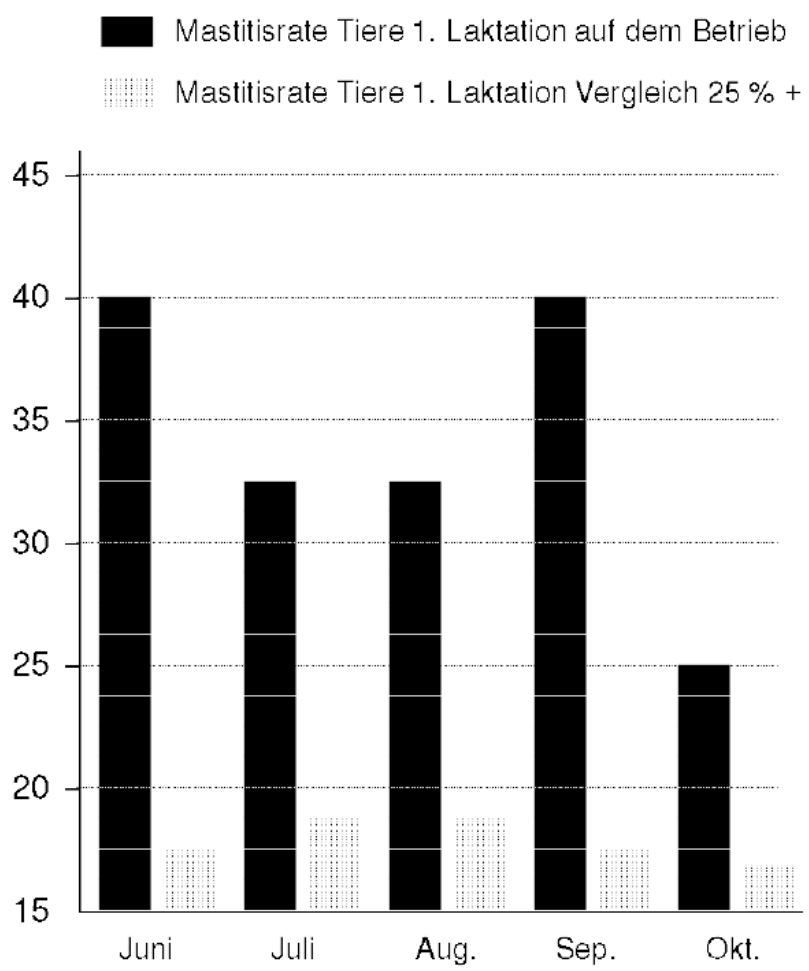
Prüfmonat	Nov.2013 - Okt. 2014	Sep. 2014	Okt. 2014
Anzahl geprüfter Kühe	205	25	20
Anzahl Kühe mit ≤ 100.000 vor der TP	115	11	10
Anzahl neuinfizierter Tiere in der TP	28	4	3
Neuinfektionsrate in der TP (%)	25	36	**30**
Ergebnis Vergleich 25 % + (%)	17	17	16

Prüfmonat	Nov.2013 - Okt. 2014	Sep. 2014	Okt. 2014
Anzahl geprüfter Kühe	205	25	20
Anzahl Kühe mit > 100.000 vor der TP	90	14	10
Anzahl geheilter Tiere in der TP	68	10	9
Heilungssrate in der TP (%)	75	71	**90**
Ergebnis Vergleich 25 % + (%)	75	75	74

5. Efficiency of dry period over last 12 months



6. Rate of heifer mastitis



Prüfmonat	Nov.2013 - Okt. 2014	Sep. 2014	Okt. 2014
Anzahl geprüfter Tiere 1. Laktation	60	5	8
Anzahl Tiere 1. Laktation > 100.000 Zellen/ml in der ersten MLP	20	2	2
Mastitisrate Tiere 1. Laktation (%)	33	40	**25**
Ergebnis Vergleich 25 % + (%)	17	17	16

Key figures as indicators

Low proportion of udder healthy animals?
- General indicator
- Do I have to focus on udder health?

Many animals with poor prognosis?
- Do I have a problem with cow-related pathogens?
- Are culling decisions reasonable?
- How effective is my concept of therapy?

How well do my heifers start into the lactation?
- Housing hygiene?
- Feeding and supply with vitamins, minerals and trace elements?
- optimally timed transit feeding?
- Calving management?
- Positive: Separate heifer group, Early mating (age at first calving < 27 months)?
- Negative: exceeding edema? Early opening of teat canal? Overcrowding? Juvenile suckling?

Strategic monitoring of herd status

- Early warning system
- Uncovering of weak points
- Control of success

Too many new infections during lactation?
- Bedding / housing hygiene?
- Teat condition?
- Milking quality and hygiene?
- Pasture?
- Use of new products?

How well does your dry cow management work?
- Bedding/ housing/ calving hygiene
- Body condition at drying off?
- No antibiotic treatment at drying off, no internal teat sealer?
- Efficiency of therapy at drying off?
- Are culling decisions reasonable?
- Negativ: Long re-bedding intervalls?, Overcrowding? High milk yield at drying off? Too many animals with poor prognosis?

Fact sheets and checklists

www.milchQplus.de

The end ist just the beginning

- Key figures are calculated for each farm since 2015
- Training institutions included the work with the key figures and factsheets in their program
- Despite extensive information, key figures are not yet used on a really broad base by farmers

www.milchQplus.de

Thank you very much for your attention!

Quelle: Swissmilk

ZellDiX

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für Landwirtschaft und Ernährung

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