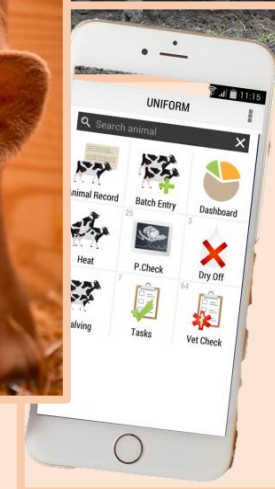


USE OF KEY PERFORMANCE INDICATORS (Level 3)

Topic	Training & information Content
5.1	Dairy Cattle Breeds and Breeding
5.2	Breeding program for a dairy farm (medium & large)
5.3	Conformation, Type classification and judging
5.4	Cow handling
5.5	Milk production recording
5.6	Heat Detection
5.7	Artificial Insemination
5.8	Pregnancy Diagnosis
5.9	Fertility Management
5.10	Cows with abnormal discharge
5.11	Fertility disease recording
5.12	Calving recording
5.13	Use of Key Performance Indicators



1. You will learn about (learning objectives):

- Key performance indicators (KPIs) and how to come up with smart KPIs.
- Importance of setting KPIs.
- Registration/recording KPIs.
- How to successfully implement KPIs.



2. Introduction

- A Key Performance Indicator (KPI) is a measurable value that demonstrates how effectively a company is achieving key business objectives.
- KPIs help you understand how your business is performing compared with other dairy farms and highlight areas for improvement. Hence, KPIs are a set of figures that help you manage your farm by showing, at a glance, which areas are performing well and those that need review.
- A Key Performance Indicator (KPI) is often farm-related and dependent on all kinds of management aspects.



2.1 Introduction Cont'd...

- The level of a Key Performance Indicator (KPI), means whether the KPI has reached the proposed level, depends on the available SOP's (Standard Operating Procedures).

What is an SOP?

- An SOP (standard operating procedure) is a set of super clear, written directions for how to complete complex routine tasks e.g.
 - Feeding.
 - Weighing.
 - Milking.
 - Harvesting.



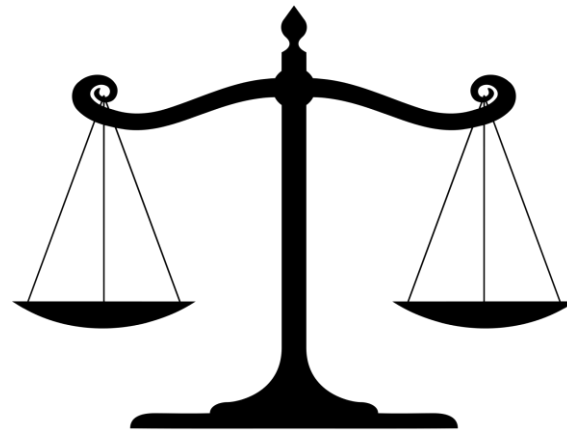
3. Key Performance Indicators

- Working with KPI's, is a matter of weighing and counting and comparing results with others.



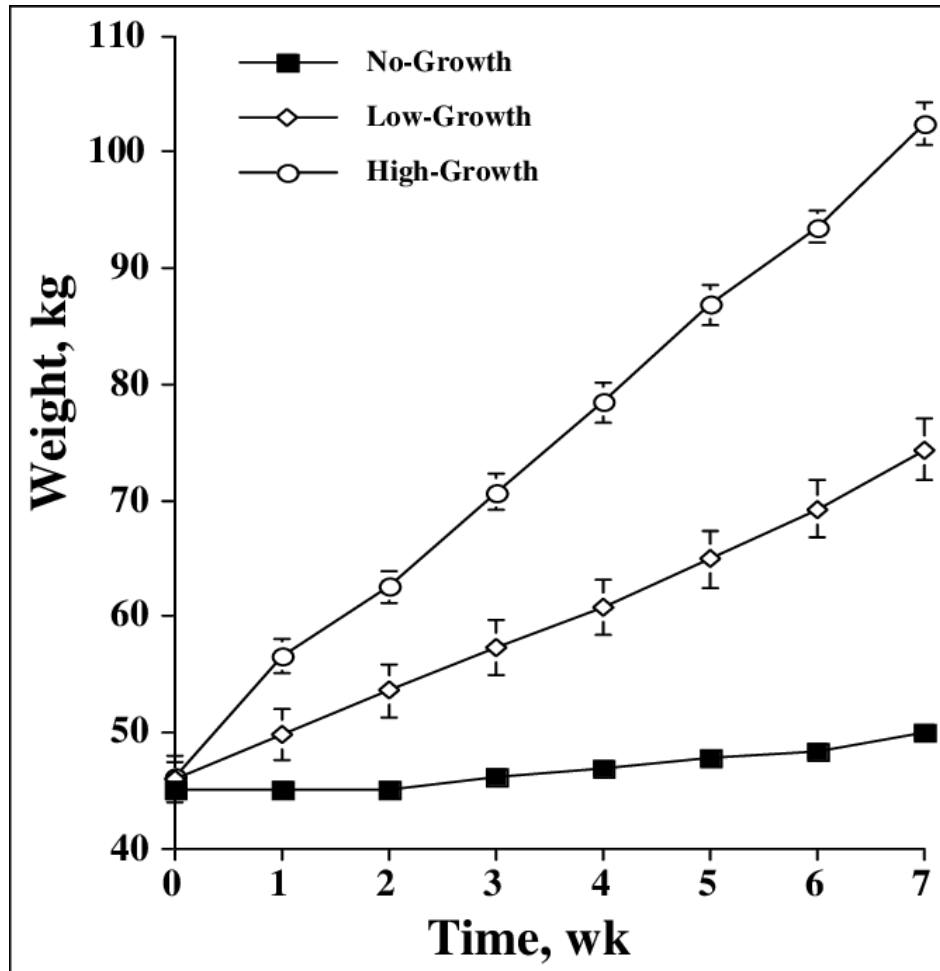
4. KPI: Body weight

- Body weights at any moment during a cow's life can easily be transmitted into a very useful KPI.



KPI.

4.1 KPI: Body weight Cont'd...



Tip: With a little bit of guidance the animal's body weight can be summarized into a graph where farmers can see how animals are growing/doing.

4.2 KPI Cont'd...

- Developing/implementing KPI's in your daily management routines means you want to either improve or optimize your results.

To simplify

Satisfied at the end of the week/month/year.

Disappointed at the end of the week/month/year.

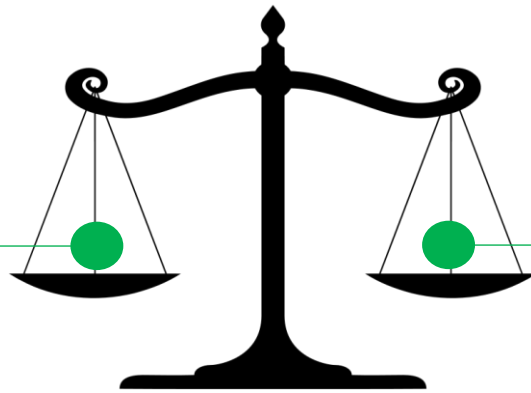


4.3 KPI Cont'd...

- Simply means finding the right balance between what you spend and what you earn.



What you SPEND



What you EARN

5. Setting smart KPIs



- All the KPI's mentioned on the next slide are “SMART”.
- One can use these KPI's as a starting point and immediately decide where you want to be/go within a given period (2 years).

	<u>Actual KPI.</u>	<u>Future KPI.</u>
12. The number of parturitions with dystocia.	= 12 %	2 years < 5 %
13. The number of cows with retained placenta.	= 25 %	2 years < 10 %
14. The number of inseminations per pregnancy.	= 3.1	2 years 2.5
15. The milk production per day.	= 165	2 years 300
16. The milk production per cow per day.	= 11kg/cow	2 years 20 kg/cow.

5.1 Setting smart KPIs Cont'd...

1. The number of cows in the farm.
2. The number of milking cows.
3. The number of dry cows.
4. The number of cows that have calved last 12 months
5. The number of cows that have been culled.
6. The number of cows that have been died.
7. The number of cows confirmed pregnant.
8. The number of pregnant heifers.
9. The number of virgin heifers.
10. The number of female calves.
11. The number of parturitions without assistance.
12. The number of parturitions with dystocia.
13. The number of cows with retained placenta.
14. The number of inseminations per pregnancy.
15. The milk production per day.
16. The milk production per cow per day.
17. The milk production per cow per year.
18. The body weight of your cows.
19. The bodyweight of heifers at 1st insemination.
20. The weight of heifers at 12 months.
21. The weight of heifers at 6 months.
22. The weight of calves at weaning.
23. The weight of calves at birth.
24. The dry matter intake per cow/day.
25. The kg's concentrate per cow/day.
26. The veterinarian costs per month.
27. The breeding costs per month.
28. The milk cheque(money)/month.
29. The concentrate costs /month.
30. Amount of milk/calf till weaning.
31. Amount of roughage needed/month.
32. Number of acres needed to be self sufficient.
33. Fertilizer costs per acre.
34. Number of cows per full-time equivalence (FTE).
35. Kg's milk per FTE.
36. And many more

6. Smart KPIs explained

1. The number of cows in the farm.

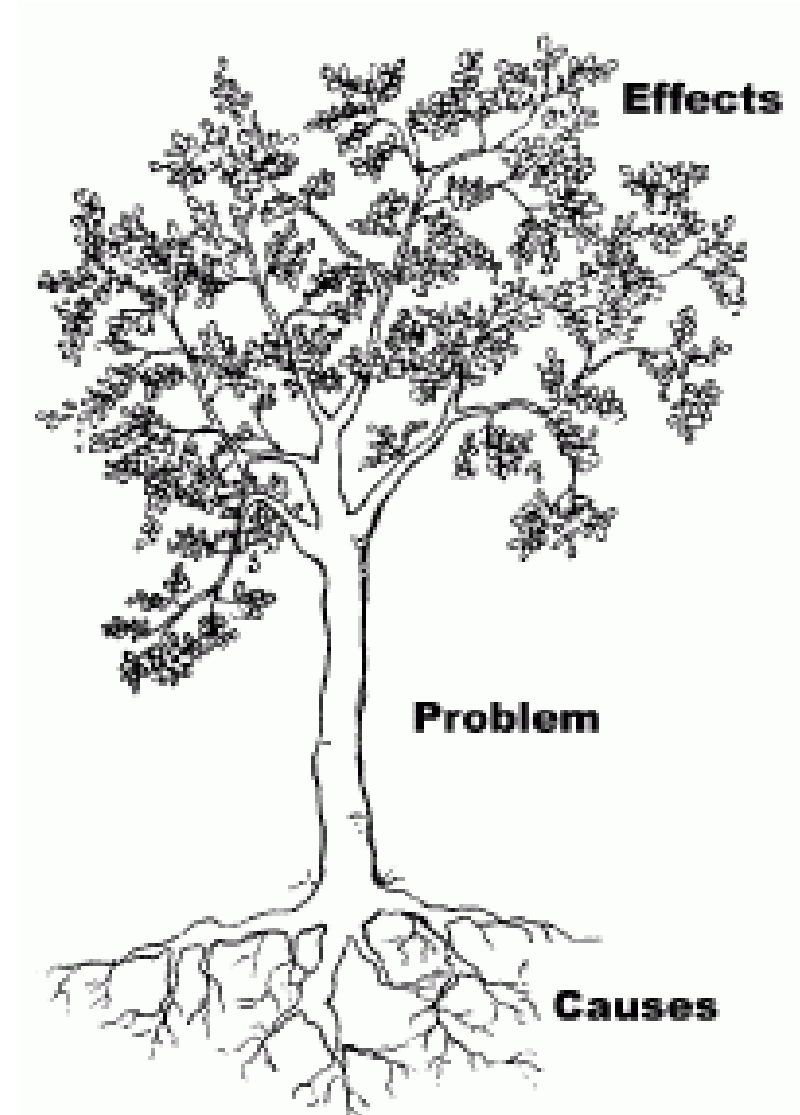
This must be attuned to;

- Acres/hectares available.
 - What can the available acres/hectares deliver (grasses/other products).
- Number of FTE's available in the farm.
- Genetic potential.

10. The number of female calves.

Must be attuned to;

- Number of cows.
- Actual replacement rate and age of the cows.



7. Importance of knowing KPIs

- Using KPI's can only take place with information/data from the past.
- Important that the farmers knows how different KPI's have been realized.

For example;

- A. What has been the influence of the weather on the level of the KPI?
 - B. What has been the impact that my farm manager did left the farm?
 - C. What was the reason there were so many cows with retained placenta last year?
-
- A. Always be prepared for the unexpected.(* enough silage, fertilized land, paddock management).
 - B. Make sure that not all the responsibilities, skills and tasks comes down to one person.
 - C. Always find out the reason of a particular problem that appeared into your farm.



7.1 Importance of knowing KPIs explained...

19. The weight of heifers at 12 months

Assumptions;

- At 12 months the calves are expected/supposed to weigh 250 kilogrammes.
- Several SOP's (see below) must be followed to achieve this result.

AS
SOON
AS
POSSIBLE



Eartag
at day 2



Teach
Eating
At day 2



8. Registration/recording of KPIs

FERTILITY CHART; 202 / 202																				
Calving date	Calving details	Calf sex + number	Milkfever	Retained-placenta	Reproductive Disorder. 1.Endometritis 2.CysticOvaries 3.Others.	1st Heat	2nd Heat	Bull name	AI technician	1 st Service date	2 nd Service date	3 th Service date	4 th Service date	5 th Service date	6 th Service date	PD Date +/-	Exp Calv date	Dry off date	Remarks	



Registration.....to find out if several KPI's are accomplished.

- % dystocia < 5%.
- % retained placenta < 10%.
- First Heat within 40 days.
- First insemination 60-80 days.
- Conception rate 1st AI 50 %.
- PD between 35 -45 days.
- Calving Interval < 420 days.

8.1 Registration/recording of KPIs Cont'd...

- Only a fertile cow will be able to earn money!



KPI.



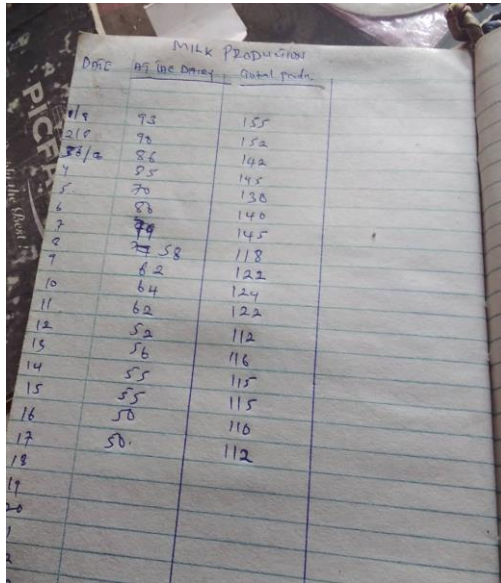
280 DAYS

Examples of KPIs to check for;

- % dystocia < 5%.
- % retained placenta < 10%.
- % dystocia < 5%.
- % retained placenta < 10%.
- Conception rate 1st AI 50 %.

8.3 Registration/recording of KPIs Cont'd...

- Records can be hand written or be done/transferred in a herd management software application (App).



Milk Production

Date	kg. Milk	kg. Milk
1/9	93	155
2/9	90	152
3/9	86	142
4	85	145
5	70	130
6	80	140
7	78	145
8	58	118
9	62	122
10	64	124
11	62	122
12	52	112
13	55	116
14	55	115
15	55	115
16	50	110
17	50	112
18		
19		
20		



9. How to implement KPIs successfully

- The way to successful implementation of the use of KPI's in your daily management is to have well-defined SOP's.
- KPI's from the zero setting (actual situation in the farm) are the bases to develop SOP's that will lead to improved KPI's.
 1. Actual SOP.....2 kg concentrate per cow per day.
 2. Improved SOP.....Concentrates according milk production.
 3. Resulting.....More milk out of same concentrate.

See illustration in the next slide.



9.1 How to implement KPIs successfully Cont'd...

- Adjustments are needed to increase profit.

Look at this practical example:



Result: Same input (10 kilo concentrate) with much higher output **64 kg** milk instead of **56 kg** milk.

cow 1	cow 2	cow 3	cow 4	cow 5	Totals.	Outcomes
2kg's concentrate	2kg's concentrate	2kg's concentrate	2kg's concentrate	2kg's concentrate	10 kg's concentrate	5.6 kg milk/kg concentrate
10 kg milk	6 kg milk	10 kg milk	22 kg milk	12 kg milk	56 kg milk	
1 kg concentrate	0.5 kg concentrate	1 kg concentrate	6 kg concentrate	1.5 kg concentrate	10 kg's concentrate	6.4 kg milk/kg concentrate
9 kg milk	6 kg milk	10 kg milk	28 kg milk	11 kg milk	64 kg milk	

10. Where there are no KPIs set

- Not everything is suitable to turn into KPI's. For example, growth/length of horns, skin colour might be interesting for farmers but cannot be measured and be processed into measurable figures (KPI).



NO KPI.

11. Take home messages/Summary

Dairy Key Performance Indicators

Key performance indicators (KPIs) help you understand how your business is performing compared with other dairy farms and highlight areas for improvement.



- END