

# Broiler Production Management for profit

August, 2005



# What is management?

- What (wo)MAN can do to get good results in the END
- So, MAN-agem-END
- With emphasis on the word “do”!

# What is management?

Do:

- the right thing
- at the right moment
- at the right place
- resulting in the highest profit

# What is profit?

- Profit = revenues – costs
- 2 types of costs:
  1. Cash or paid costs
  2. Non-cash or calculated costs  
(depreciation, family labour, interest on family land and capital investments)
- Gross margin = revenues – paid costs

# Gross margin

- is not the same as “profit”
- but a very good MANAGEMENT tool to study the strengths and weaknesses of a broiler farm → helps farmer to decide what to DO
- requires structural recording and analysis

# Structural recording and analysis

1. Implement system for data collection (technical and financial)
2. Calculate technical and financial results
3. Compare actual results with achievable standards
4. Make and implement improvement plan
5. Assess success of improvement etc.

## A case study:

- At our farm we had the same feed mill and processing plant for many years.
- There was room for improvement, so time for a change.
- First flock with new feed mill and processing plant will be evaluated

# Case study continued

- 10/3/2005 10,060 Hubbard broilers on 448 m<sup>2</sup>
- 1<sup>st</sup> delivery 15/4/2005 1856 broilers at 3280 kg live weight
- 2<sup>nd</sup> delivery 22/4/2005 7870 broilers at 18260 kg live weight
- Next batch after 18 days

# Case study continued

item	amount	Price/unit	Total costs
d.o.c.	10,060	€ 0.23	
feed	37,330 kg		€ 8,421.35
vaccinations			€ 420.61
medication	10 liter	€ 9.20	
Monitoring			€ 92.50
Gas	2269 m <sup>3</sup>	€ 0.35	
Water	60 m <sup>3</sup>	€ 0.10	
Electricity	1090 kWh	€ 0.17	
delivery			€ 440
Misc. (incl. Manure)			€ 348

# Case study continued

- First calculate technical and financial results of this flock
- Then compare these results with history
- Conclusion?

# Analysis of low daily growth

- Poor feed quality
- Too much feed restriction
- Availability of water (quality and temp.)
- Diseases and health problems
- Temperature
- Hours of light
- A poor start (hatchery and brooding)
- Genetics
- Etc.

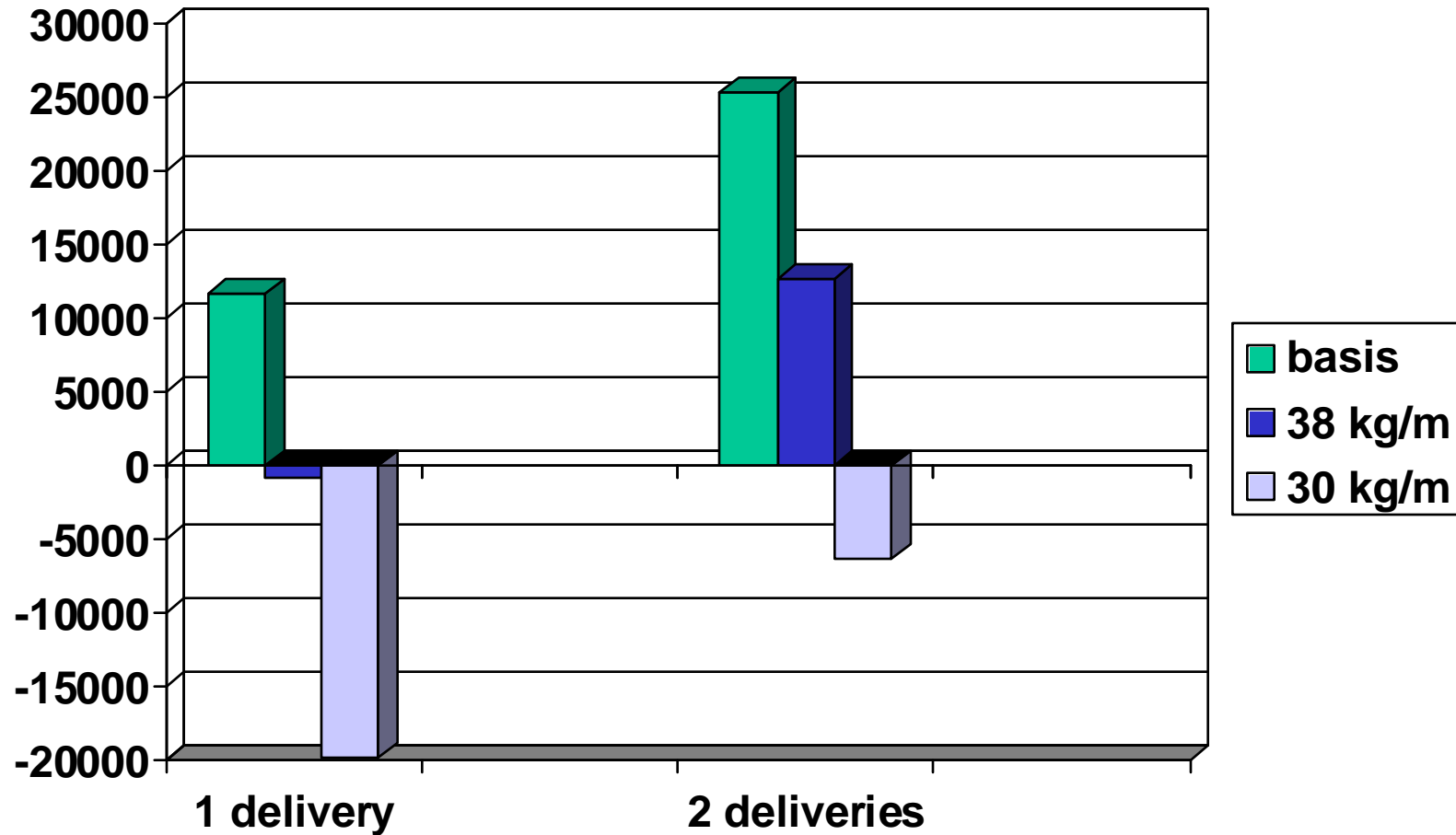
# Analysis of low FCR

- Feed wastage (equipment, vermin)
- Poor feed quality
- High mortality
- Feeding method (ad lib vs restricted)
- Availability of water
- Health and disease problems
- Poor quality chicks
- Ratio male/female
- High delivery weight (long fattening period)
- Low temperature
- Etc.

# Analysis of high mortality ( $> 0.1\%/day$ )

- Poor brooding management
- Poor quality doc
- Small doc
- Insufficient feeders and drinkers
- Health problems
- Poor hygiene
- Poorly implemented vaccination progr.
- Cannibalism (density)
- Too long fattening period
- Predators, accident, thieves
- Etc.

# Effect stocking density



# Effect day and night schedule

- In the Netherlands 23 hours light and 1 hour darkness (23L/1D) was very common
- Negative for welfare → now at least a period 6 hours darkness per day (a more “natural rhythm”)
- What are the effects? Research at “Spelderholt” with 20,800 Ross broilers; 1<sup>st</sup> 2 day continuous light, thereafter different schedules

# Effect day and night schedule (body weight)

Age	23L/1D	18L/6D	16L/8D	14L/10D
14	374 (100)	373 (100)	361 (97)	338 (90)
28	1240 (100)	1224 (99)	1209 (97)	1147 (93)
35	1835 (100)	1817 (99)	1802 (98)	1760 (96)
38	2045 (100)	2040 (100)	2046 (100)	1987 (97)
42	2285 (100)	2307 (102)	2316 (103)	2282 (101)

# Effect day and night schedule (technical results at 42 days)

	23L/1D	18L/6D	16L/8D	14L/10D
Weight	2258	2307	2316	2282
Mortality	6.2	4.7	3.8	3.8
• start	3.56	2.26	2.04	2.25
• circulation	1.94	1.62	1.09	0.91
FCR *)	1.69	1.66	1.64	1.63

\*) corrected for feed consumed by mortality

# Effect day and night schedule (external quality)

	23L/1D	18L/6D	16L/8D	14L/10D
Irr. Breast	81.0* (3.4)**	75.8 (0.9)	74.2 (0.4)	67.4 (0)
Hock burn	60.1 (0.9)	51.7 (0)	46.1 (0)	22.4 (0)
Irr. Feet	38.2 (3.9)	87.2 (4.1)	80.9 (2.2)	75.1 (0)
Dirty	99.1 (8.1)	99.6 (10.4)	98.8 (12.1)	96.2 (8.5)

Score 0 – 2; 0 = normal and 2 = bad; \*) % score 1 or 2; \*\*) % score 2

# Effect day and night schedule (gait score at 38 days)

	23L/1D	18L/6D	16L/8D	14L/10D
Gait score	1.4	1.1	0.6	0.5

Score 0 – 5; 0 = normal gait and 5 = abnormal gait (sit down after each step)

# Effect day and night schedule

## Conclusions

- Improved welfare
  - Less mortality
  - Less hock burn
  - Better gait
- Improved technical results
  - But, allow time for compensatory growth!!!

# Slow growing broilers?

- Alternative broiler (between modern fast growing strains and “organic birds”).
- Why:
- High mortality due to heart failure and circulatory problems
- Welfare
- Aim: 2.2 kg in 56 days

# 52 kg in 56 days

- Improved welfare:
  - Reduced mortality
  - No or less feed restriction in BPS
- Increased cost price:
  - Griller + 6 – 7 %
  - Parts + 6 – 9 %
    - Exported parts will probably not make better price → breast meat + 15% for consumer (welfare and product quality)

# Thank you for your attention

More information: [www.ptcplus.com](http://www.ptcplus.com)

