

PART 1:

BROILER FARMING & PROFITABILITY

By Siphon Mvuyana



WHAT WE WILL BE COVERING TODAY:

- **Broiler Farming:**

- What to measure?
- Why to measure?
- How to measure?



INTRODUCTION

- Farming is a business.
- Every businesses aim is to be profitable.
- Every decision made in the business, impacts profitability.
- Make informed decisions



THE DECISION-MAKING PROCESS





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

IN OPERATIONS

- Number of chicks placed and date (If available: Source hatchery & Parent stock age)
- Feed
- Water
- Electricity
- Vaccinations
- Vet fees
- Labour
- Heating
- Transport
- Sample weights on day 7, 14, 21, 28
- Age and weight to market ratio vs Breed standard





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

IN PRODUCTION

- FCR – Feed conversion ratio
- ADG -Average Daily Gain
- ALM – Average Live Mass
- SD- Stocking Density
- Kg broiler weight/m²
- PEF - Performance efficiency factor
- Mortality rate – including culls
- Culls – throughout cycle
- Slaughter information





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

COSTS

- Input costs (e.g. feed, chicks, vaccinations, etc)
- Cost of Production
- Operational costs
- Overhead cost
- Transport Cost
- Budget Variances





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

SALES

- Sales – money coming in
 - Number of birds sold
 - @ what price
- Demand vs forecast
- Overall inventory turnaround – Average birds in stock
- Inventory aging analysis
- Average selling price /kg





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

RECORD KEEPING:





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

START DATE: _____

CYCLE #: _____

BIRDS PLACED: _____

MORTALITIES: _____

FEED INTAKE: _____ g

AVE END WEIGHT: _____ g

FCR: _____

REVENUE: _____

# BIRDS	x	SOLD @	=	REVENUE
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
_____	X	R	=	R
TOTAL REVENUE				R

COSTS:

ITEM	COSTS
Bedding	R
Day old chicks	R
Feed	R
Vaccinations	R
Additional medications	R
Water (estimate)	R
Electricity	R
Other (_____)	R
Other (_____)	R
TOTAL COST	R

PROFIT: (REVENUE - COSTS =)

R - R = R

BROILER MANAGEMENT CARD

CYCLE #: _____ # BIRDS PLACED: _____ DATE: _____

DAY	FEED USED <small>e.g. Epol SureGro</small>	MORTALITY <small># dead birds</small>	LIVE WEIGHT <small>Weigh at least every 7 days. Weigh a sample of birds and record average bird weight.</small>	FEED SUPPLIED <small>Record feed given to birds over 7 day interval</small>	FEED REMAINING <small>Record feed remaining at 7 day intervals</small>	FEED INTAKE (kg per bird) <small>(Feed supplied LESS feed remaining) / # live birds</small>	FCR <small>Weight of bird / feed intake</small>	VACCINATIONS <small>Vaccination schedule</small>	COMMENTS <small>Record vaccinations, diseases, observations and activities</small>
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									





WHAT TO MEASURE:



HOW TO MEASURE:



WHY TO MEASURE:

RECORD KEEPING:

- Cumulative feed intake
- Mortality rate – recording
- Birds weight vs Breed standard
- Costs (Overall costs) vs Previous production cycles
- Daily Feed Intake – vs breed standard vs Industry average





WHAT TO MEASURE:



HOW TO MEASURE:



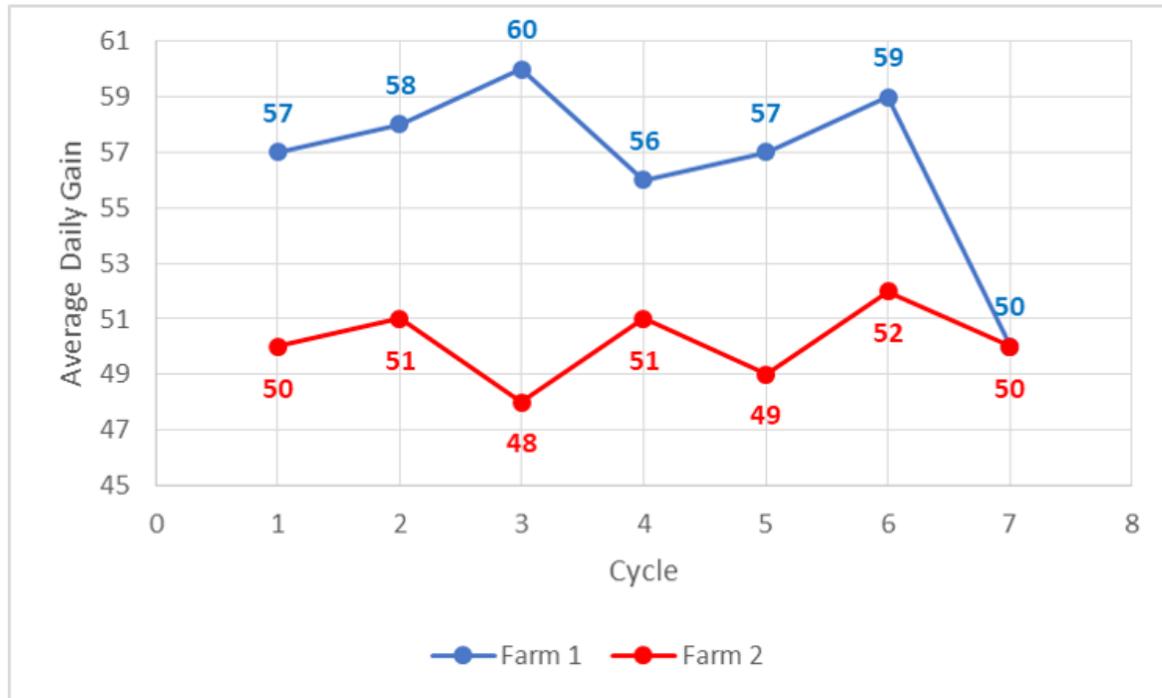
WHY MEASURE:

WHY

- To know what happened.
- To define expectations.
- To identify problems.
- To find solutions to problems.
- To enable feedback – did your solution work?
- To enable continuous improvement



WHY



An average daily gain of 50 grams per day is normal for farm 2 but a problem for farm 1!

PART 2:

IS MY BROILER BUSINESS PROFITABLE

By Danie Carstens



WHAT WE WILL BE COVERING TODAY:

1. What calculations should I be doing?
2. How will they help me:
Case Study



FEED CONVERSION RATIO (FCR) :

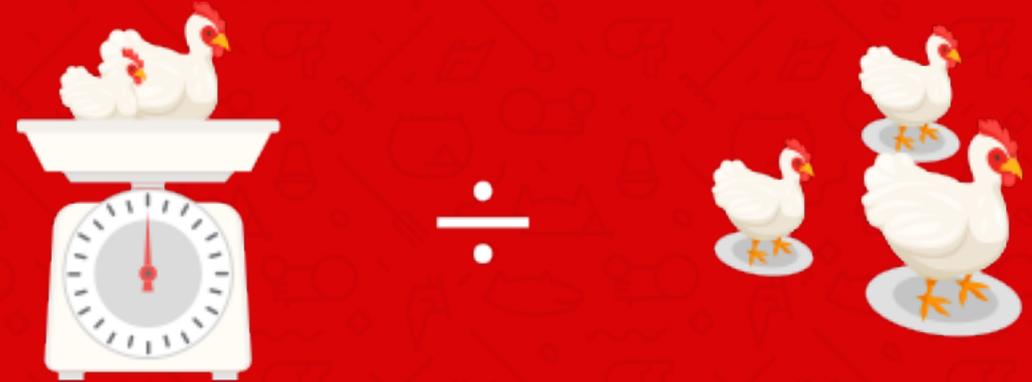
So for every kg of chicken
(live mass) 1.42 kg of feed
was consumed

Quantity of feed consumed ÷ total weight of broilers


$$100 \text{ kg} \div 70 \text{ kg} = 1.42$$

WHAT CALCULATIONS SHOULD I BE DOING?

Average live mass (ALM) per
bird



Total weight of live broilers ÷ total number of broilers

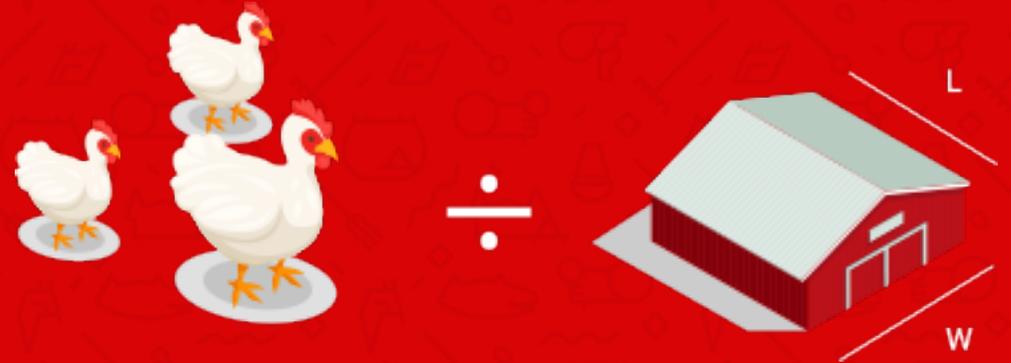
FOR EXAMPLE:

Total weight of broilers 2 000 kg ÷ 900 birds
= 2.2 kg/bird

WHAT CALCULATIONS SHOULD I BE DOING?

Stocking density

Number of broilers per square meter is a measure of stocking density



Total number of broilers placed ÷ square meters of house
(Length × width of the house)

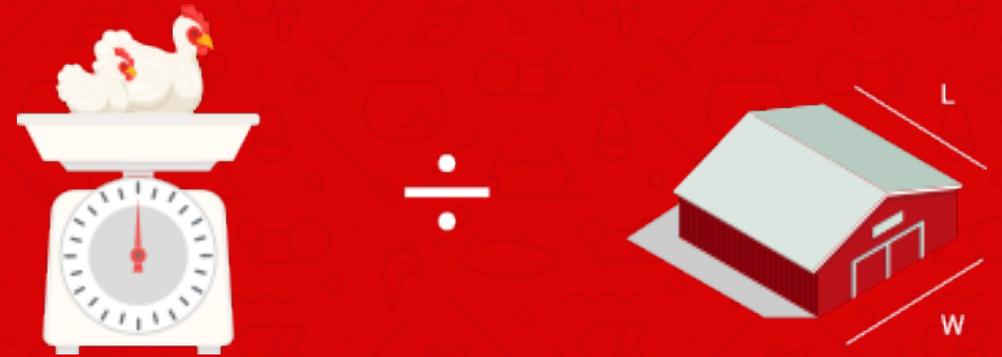
RECOMMENDATIONS:

- Medium size business 16 birds /m²
- Commercial up to 22 birds /m²

WHAT CALCULATIONS SHOULD I BE DOING?

Kg broiler weight/square meter

Number of kilograms (or live mass) of broilers per square meter is a measure of efficiency



Total weight of broilers ÷ number of square meters of house (Length × width of the house)

FOR EXAMPLE:

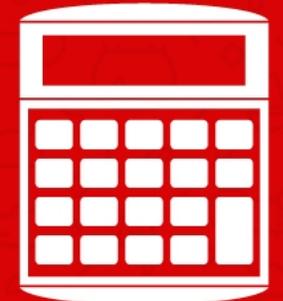
Total weight of broilers 9 000 kg ÷ (25m Long x 10m wide)

= Total weight of broilers 9 000 kg ÷ 250m²

WHAT CALCULATIONS SHOULD I BE DOING?

- **Performance efficiency factor (PEF)**
- $(\text{ALM (kg)} \times \% \text{ Survivors}) \div (\text{FCR} \times \text{Age of slaughter in days}) \times 100$

<250	275	300	325	350	375	400	425	450	>450
←Poor		←Average →		←Good→		Excellent→			



WHAT CALCULATIONS SHOULD I BE DOING?

Income



X R 17/kg

Total kg chicken delivered × price
per kg
OR in the LIVE CHICKEN MARKET:

Number of birds sold × price per bird
delivered

WHAT CALCULATIONS SHOULD I BE DOING?

Total feed cost

RANDS X



Add feed price per ton per phase x total amount of feed per phase consumed:

FOR EXAMPLE:

Starter phase: R5.00/kg x 40kg = R200
Grower phase: R4.90/kg x 80kg = R392
Finisher phase: R4.60/kg x 120kg = R552
TOTAL FEED COST: R1 144

WHAT CALCULATIONS SHOULD I BE DOING?

Feed cost/kg produced

TOTAL FEED COST



÷



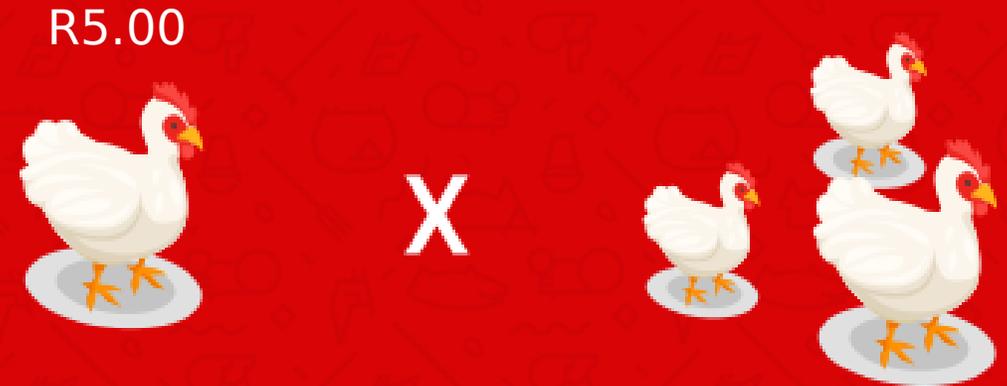
Total feed cost ÷ total kg of broilers delivered

OR in the LIVE CHICKEN MARKET:

Total feed cost ÷ price per bird delivered

WHAT CALCULATIONS SHOULD I BE DOING?

Chick cost



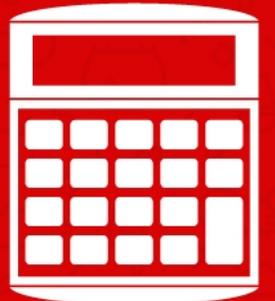
Chick price × number of chicks placed

FOR EXAMPLE:

R5.00 per chick x 300 chicks = R1 500

WHAT CALCULATIONS SHOULD I BE DOING?

- **Margin : Income ahead of feed cost**
Income – Feed expense
- **Margin/square meter :**
Margin ÷ square meters of house



WHAT CALCULATIONS SHOULD I BE DOING?

Profit

Income - all expenses (feed cost, chick cost, heating cost, vaccine cost, shavings cost, labour cost, costs to clean the houses, water treatment costs, maintenance costs)

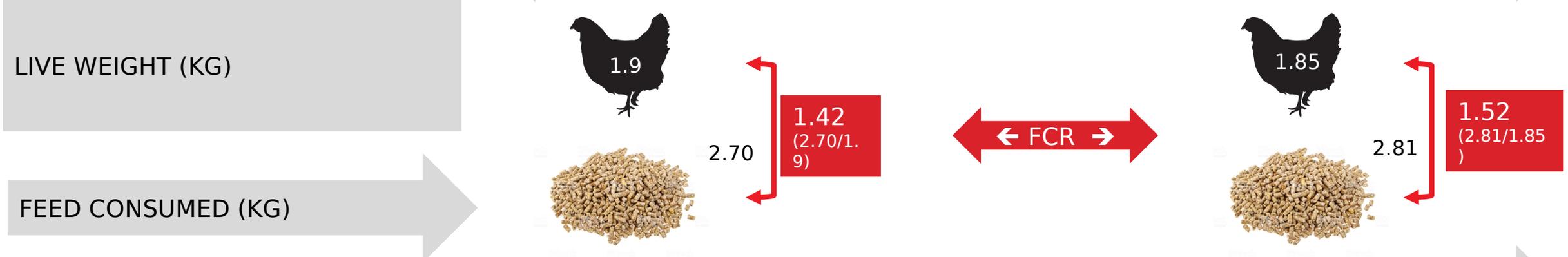




OTHER FEED COMPANY

FEED PRICE / KG ~~R5.60~~ **R6.04** R5.50

AGE SLAUGHTERED ← 32 days →



FEED COST / BIRD R15.11 (R5.60 x 2.70) **R16.30** R15.47 (R5.50 x 2.81)

REVENUE / KG ← R17 →

REVENUE / BIRD R32.30 (R17 x 1.9) R31.45 (R17 x 1.85)

MARGIN / BIRD (Revenue Less Feed Cost) R17.19 (R32.30 - R15.11) **R16.00** R15.98 (R31.45 - R15.47)

MARGIN / KG LIVE WEIGHT R9.05 (R17.19/1.9) R8.64 (R15.98/1.85)

At a margin difference per bird of R17.19 - R15.98 = R1.21/bird you would have made **R12 100 more on 10 000 broilers** using EPOL.

Thank you

