LIVESTOCK DEVELOPMENT NOTES: NO 8

# PRACTICAL FINANCIAL AND RECORD KEEPING PROCEDURES IN MANAGING A CHICKEN PROJECT

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***ABSTRACT***

*A guide to projecting the cost and income and maintaining records of stock, feed and sales of produce for the benefit of cost benefit analysis of both broiler and layer chicken projects are outlined.*

***Key words:*** *poultry, budgets, cash flow, record keeping, cost benefit analysis*

## INTRODUCTION

Like any other business ventures, poultry projects also require careful planning in projecting what it will cost in establishing the project and how much income it will generate.

Sadly, this has not been the case for the majority of the chicken projects that have been established, particularly, those in the rural areas. These proejcts have been established just because someone nearby is making some monies from raising chickens, or simply, "I have money I will therefore raise some chickens". Ask how much it will cost to set-up the project and how much income will be generated, the most common answer is, "I don't know". The farmer can be excused for saying such, but it should be the last thing to hear from a Didimen/meri. Surely, the farmer deserves better and the Didimen/meri should assist as much as possible in the process of planning the project.

## FINANCIAL PLANNING

### Budgets

When considering the project costs and possible incomes one is actually drawing up a financial plan (budget) of the project over a period of time. There are two types of budget: a total and a partial budget. The total budget is drawn up when information is needed to oeprate a number of businesses or a farm producing a number of products. While a partial budget is used to assess the success of part of the business. Some of the necessary information required in drawing up budgets for chicken projects are as follows:

- Determine the size and type of the projects,
- Possible source of funds or finance,
- The market situation for the product(s),
- Type of management of the project,
- Setting of the infrastructure or buildings, etc.,
- Source of supply of materials, feeds, chickens etc.

Thus, the whole exercise attempts to put into picture three important components, namely:

- Cost of production or expenses,
- Receipts or income,
- Cash-flow.

### Expenses

This part of the budget attempts to show the cost of establishing and running the project. It details the cost of capital assets such as build-

*Table 1:* **An example cash flow for a 200 layer chicken project**

| | Year | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| **Receipts** | | | | | |
| Sale of eggs | 1200 | 3300 | 3500 | 3800 | 4000 |
| Sale of culls | 50 | 600 | 700 | 750 | 850 |
| *Total cash receipts* | *1250* | *3900* | *4200* | *4550* | *4850* |
| **Capital expenses** | | | | | |
| Housing | 1000 | 800 | - | - | - |
| Poultry equipment | 200 | 100 | - | - | - |
| Water supply | 100 | 100 | - | - | - |
| *Total capital expenses* | *1300* | *1100* | - | - | - |
| **Variable expenses** | | | | | |
| Day old pullets | 80 | 80 | 85 | 85 | 90 |
| Deep litter | 10 | 10 | 12 | 12 | 13 |
| Feed | 1200 | 2500 | 2700 | 2800 | 2950 |
| Freight | 50 | 50 | 55 | 55 | 60 |
| Medication | 20 | - | 30 | - | - |
| Egg filler cartons | 200 | - | 200 | 100 | - |
| Transport of produce | 30 | 50 | 60 | 70 | 70 |
| Miscellaneous | 100 | 120 | 130 | 150 | 150 |
| *Total variable expenses* | *1690* | *2810* | *3272* | *3272* | *3333* |
| *Total cash payments, excluding interest on loans* | *2990* | *3920* | *3272* | *3272* | *3333* |
| *Annual cash surplus or (Deficit)* | *(1740)* | *(20)* | *928* | *1278* | *1517* |
| *Cumulative cash surplus or (Deficit)* | *(1740)* | *(1590)* | *(662)* | *616* | *2133* |

*Table 2:* **An example mortality record for a broiler chicken project**

Batch No: 1
No. purchased: 500
No. placed in brooder: 496

House No: 1
Date at day old: 01/01/95
Condition on arrival: Good

| Date | No. Dead | No. Remaining | Date | No. Dead | No. Remaining |
|---|---|---|---|---|---|
| Placement | 4 | 496 | 21.01.95 | 1 | 482 |
| 02.01.95 | 2 | 494 | 10.02.95 | 1 | 481 |
| 03.01.95 | 1 | 493 | 18.02.95 | 1 | 480 |
| 05.01.95 | 5 | 488 | Removed | 2 | 478 |
| 06.01.95 | 2 | 486 | | | |
| 08.01.95 | 1 | 485 | | | |
| 10.01.95 | 1 | 484 | Batch total | 22 (4.4%) | 478 |
| 13.01.95 | 1 | 483 | | | |
| 14.01.95 | - | 483 | | | |
| Brooding total | 17 (3.4%) | 483 | | | |

*Table 3:* **An example feed record for a broiler chicken project**

Batch No: 1 House No: 1
No. Purchased: 500 Date at day old: 01/01/95

| | Feed Given | | Feed Purchased | | Feed Remaining | |
|---|---|---|---|---|---|---|
| Date | Bags | Kg | Bags | Kg | Bags | Kg |
| Store | | | - | - | - | - |
| 28/12/94 | | | S10 | 500 | 10 | 500 |
| 29/12/94 | | | S 6 | 300 | 16 | 800 |
| 01/01/95 | 1 | 50 | - | - | 15 | 750 |
| 06/01/95 | 1 | 100 | - | - | 14 | 700 |
| 09/01/95 | 1 | 50 | - | - | 13 | 650 |
| 11/01/95 | 2 | 100 | - | - | 11 | 550 |
| 13/01/95 | 1 | 50 | - | - | 10 | 500 |
| 15/01/95 | 2 | 100 | - | - | 8 | 400 |
| 17/01/95 | 1 | 50 | - | - | 7 | 350 |
| 19/01/95 | 2 | 100 | - | - | 5 | 250 |
| 22/01/95 | 1 | 50 | - | - | 4 | 200 |
| 25/01/95 | 2 | 100 | - | - | 2 | 100 |
| 26/01/95 | - | - | F20 | 1000 | 22 | 1100 |
| 28/01/95 | - | - | F12 | 600 | 34 | 1700 |
| 28/01/95 | 2 | 100 | - | - | 32 | 1600 |
| 30/01/95 | 2 | 100 | - | - | 30 | 1500 |
| 10/02/95 | 3 | 150 | - | - | 27 | 1350 |
| Feed type | S | 800 | 16 | 800 | | - |
| | F | 1600 | 32 | 1600 | | - |
| **Total** | | **2400** | **48** | **2400** | **27** | **1350** |

**Feed types: S-broiler starter, F - broiler finisher**

ings, poultry equipment and water supply system, their life span and the cost of depreciation of these assets. The labour cost involved in establishing and running the project and of course, the cost of consumables and services such as feed, stock, transport and vaccination are also shown as part of expenses. Besides, if capital has been borrowed this will also be shown in terms of interest payment.

## Receipts

This part of the budget predicts the value of the product(s) produced. The selling price of the produce should be a calculated estimate, however, since selling price(s) depends on market demand and the competition between producers, using one price alone may give a false impression on the value of the produce. Therefore it would be best using different prices for a produce. For example, when determining the receipts from a broiler project, 3 to 4 selling prices (e.g. K3, K4, K5 and K6) of the product should be used. This will predict what is the lowest or highest level of receipts that can be expected from the project.

## Cash flow

This is a long term development plan designed to show how much money is available for the running and continuation of the project. It helps the owner to see when during the operation of the project there is cash available for new activities, for personal or family expenses and when changes need to be made to save money for

*Table 4:* **An example cost benefit record for a broiler chicken project**

Batch No: 1 House No: 1
No. purchased: 500 Date at day old: 02/02/95

| Expenses | | Receipts | |
|---|---|---|---|
| **Item** | **Kina** | **Item** | **Kina** |
| Litter | 10.00 | | |
| Day old | 200.00 | 20 live sale K3 each | 60.00 |
| Freight | 40.00 | 15 live sale K4 each | 60.00 |
| Vaccination | 5.00 | 200 abattoir K1.70 each | 340.00 |
| Beak Trimming | 5.00 | 40 live sale K4 each | 160.00 |
| Feed | 120.00 | 150 abattoir K1.80 each | 270.00 |
| Freight | 10.00 | 49 live sale K3.50 each | 171.50 |
| Feed | 60.00 | | |
| Freight | 5.00 | | |
| Kerosene | 2.00 | | |
| Feed | 220.00 | | |
| Freight | 10.00 | | |
| Feed | 132.00 | | |
| Freight | 10.00 | | |
| **Total** | **829.00** | | **1,061.50** |

*Table 5:* **An example pullet mortality record for a layer chicken project**

Batch No: 1 House No: 1
Number purchased: 200 Date at day old: 01/01/95
No. placed in brooder: 208 Condition on arrival: Good

| Date | No. Dead | No. Cull | No. Remaining | Date | No. Dead | No. Cull | No. Remaining |
|---|---|---|---|---|---|---|---|
| Placement | - | - | 208 | | | | |
| 02.01.95 | 2 | - | 206 | 29.01.95 | 4 | - | 191 |
| 03.01.95 | 1 | - | 205 | 05.02.95 | 1 | - | 190 |
| 04.01.95 | 3 | - | 202 | 10.02.95 | 1 | 2 | 187 |
| 05.01.95 | 2 | - | 200 | 08.03.95 | 1 | 3 | 183 |
| 06.01.95 | 1 | - | 199 | | | | |
| 09.01.95 | 1 | - | 198 | | | | |
| 14.01.95 | 1 | - | 197 | | | | |
| 17.01.95 | 1 | - | 196 | | | | |
| 19.01.95 | 1 | - | 195 | 04.05.95 | 5 | | 178 |
| **Brooding period total** | **13 (6.3%)** | | | **Rearing period total** | **17 (8.2%)** | **5** | **178** **178** |

*Table 6:* **An example feed record for a layer chicken project**

Batch No: 1 House No: 1
No. of day old: 200 Date at day old: 01/01/95

| Date | Feed Given Bags | Kg | Feed Purchased Bags | Kg | Feed Remaining Bags | Kg |
|---|---|---|---|---|---|---|
| Store | - | - | - | - | - | - |
| 26.12.94 | - | - | S7 | 350 | 7 | 350 |
| 01.01.95 | 1 | 50 | - | - | 6 | 300 |
| 10.01.95 | 1 | 50 | - | - | 5 | 250 |
| 16.01.95 | 1 | 50 | - | - | 4 | 200 |
| 22.01.95 | 1 | 50 | - | - | 3 | 150 |
| 27.01.95 | 1 | 50 | - | - | 2 | 100 |
| 03.02.95 | 1 | 50 | - | - | 1 | 50 |
| 05.02.95 | - | - | D32 | 1600 | 33 | 1650 |
| 08.02.95 | 1 | 50 | - | - | 32 | 1600 |
| 12.02.95 | 2 | 100 | - | - | 30 | 1500 |
| 10.05.95 | - | - | L40 | 2000 | ? | ? |
| 03.08.95 | - | - | L40 | 2000 | ? | ? |
| | Starter | 350 | | 350 | | ? |
| Total feed | Developer | 1600 | | 1600 | | ? |
| | Layer | 4000 | | 4000 | | ? |
| | Tonnage | 5950 | | 5950 | | ? |

Feed types: S -pullet starter; D -pullet developer; L -layer crumbles/pellets

*Table 7:* **An example egg production cost benefit record for a layer chicken project**

Batch No: 1 House No: 1
Number purchased: 200 Date at day old: 01/01/95

| Expenses | | Receipts | |
|---|---|---|---|
| Item | Kina | Item | Kina |
| Saw dust | ? | Sale of eggs | ? |
| Kerosene | ? | Sale of eggs | ? |
| Days old | ? | Sale of eggs | ? |
| Freight | ? | Sale of eggs | ? |
| Vaccination | ? | Sale of eggs | ? |
| Debeaking | ? | Sale of eggs | ? |
| Starter feed | ? | Sale of culls | ? |
| Freight on feed | ? | Sale of culls | ? |
| Egg fillers | ? | Sale of culls | ? |
| Medication | ? | Sale of culls | ? |
| Egg cartons | ? | Sale of culls | ? |
| Layer feed | ? | Sale of culls | ? |
| Freight | ? | | |
| Transport of eggs | ? | | |
| Total | ? | | ? |

*Table 8:* **An example egg production record for a layer chicken project**

| | | | |
|---|---|---|---|
| Batch No: | 1 | House No: | 1 |
| No. of day old: | 200 | Date at day old: | 01/01/95 |
| No. at point of lay: | 180 | Date at point of lay: | 03/06/95 |

| Date | No. Eggs/Sizes | | | | H.H% per day |
|---|---|---|---|---|---|
| | S | M | L | Tot. | |
| 03.06.95 | 2 | - | - | 2 | |
| 04.06.95 | 2 | 1 | - | 3 | Wk 1 |
| 05.06.95 | 3 | 1 | - | 4 | 180 Hens |
| 06.06.95 | 6 | 2 | - | 8 | |
| 07.06.95 | 6 | 3 | 1 | 10 | |
| 08.06.95 | 10 | 4 | 3 | 17 | |
| 09.06.95 | 16 | 5 | 2 | 23 | |
| **Total/wk** | **45** | **16** | **6** | **67** | **5.3** |
| 10.06.95 | 20 | 4 | 3 | 27 | |
| 11.06.95 | 18 | 6 | 5 | 29 | Wk 2 |
| 12.06.95 | 21 | 10 | 4 | 35 | 179 Hens |
| 13.06.95 | 15 | 12 | 6 | 33 | |
| 14.06.95 | 14 | 18 | 3 | 35 | |
| 15.06.95 | 18 | 17 | 5 | 40 | |
| 16.06.95 | 20 | 10 | 15 | 45 | |
| **Total/wk** | **126** | **77** | **41** | **244** | **19.4** |
| 17.06.95 | 25 | 10 | 13 | 48 | |
| 18.06.95 | 22 | 15 | 10 | 47 | Wk 3 |
| 19.06.95 | 18 | 16 | 15 | 49 | 179 Hens |
| 20.06.95 | 17 | 20 | 15 | 52 | |
| 21.06.95 | 15 | 22 | 14 | 51 | |
| 22.06.95 | 16 | 21 | 17 | 54 | |
| 23.06.95 | 13 | 28 | 17 | 58 | |
| **Total/wk** | **126** | **132** | **101** | **359** | **287** |
| 24.06.95 | 15 | 30 | 21 | 66 | |
| 25.06.95 | 16 | 35 | 18 | 69 | Wk 4 |
| 26.06.95 | 10 | 41 | 19 | 70 | 179 Hens |
| 27.06.95 | 11 | 52 | 16 | 79 | |
| 28.06.95 | 9 | 55 | 17 | 81 | |
| 29.06.95 | 10 | 58 | 22 | 90 | |
| 30.06.95 | 13 | 62 | 25 | 100 | |
| **Total/wk** | **84** | **333** | **138** | **555** | **44.0** |

**Egg sizes: S - small; M - medium; L - large H.H - Hen housed egg production**

$$\text{H.H\%} = \frac{\text{Number of eggs produced} \times 100}{\text{No. of hens housed} \times \text{No. of days}}$$

other important purchases. An example of a cash flow of a 200 layer project over a 5 year period is shown in *Table 1*.

**Note:** example budgets for both broiler and layer chicken projects are also shown in sections dealing with practical management systems of peri-urban broiler and small scale layer chicken projects.

## RECORDS

There are many good reasons why records should be kept. For instance, records provide accurate expenses such as feed, stock, medication and labour costs. When proper records are kept it is easy to work-out the financial standing or worthiness of the project and most of all, help in the future planning and budgeting.

Records must be planned according to the type and size of the project. Large projects dealing with more than one product will require more complicated records than a small single product project. The frequency or recording will depend on the type of data and information one requires in making decisions about the project. Some records such as those of mortality, egg production and feed consumption must be kept daily. Other records can be kept on a less frequent basis. In most instances, daily records should be summarised at the end of each week. Certain calculations are necessary at this time too. These include the amount of feed eaten to produce a dozen eggs, feed consumed per 100 birds and kilogram feed consumed per kilogram body weight gain. Some examples of recording sheets one should maintain for broiler and layer chicken projects are shown in *Tables 2, 3, 4, 5, 6, 7* and *8*.