



## **Fattening Management of Independent Broiler Chicken Business (case study in a ranch owned by Mr. Andi Mukri in Anaiwoi Neighborhoods of Tanggetada District)**

### AUTHORS INFO

#### **Ayu Wulandari**

Universitas Sembilanbelas November Kolaka  
[nurhidayah4727@gmail.com](mailto:nurhidayah4727@gmail.com)  
+6282188726193

#### **Junaedi**

Universitas Sembilanbelas November Kolaka  
[junaedi.peternakan@gmail.com](mailto:junaedi.peternakan@gmail.com)  
+6285240078133

#### **Suparman**

Universitas Sembilanbelas November Kolaka  
[suparman77ptk@gmail.com](mailto:suparman77ptk@gmail.com)  
+6282345330077

### ARTICLE INFO

e-ISSN: 2548-3803

p-ISSN: 2548-5504

Vol. 3, No.1, June 2018

URL: <http://dx.doi.org/10.31327/chalaza.v4i1.935>

© 2019 CJAH All rights reserved

### **Abstract**

The research was conducted to find out maintenance management at the farms of Mr. Andi Mukri. The research was conducted in July 2018. Data were analyzed quantitatively and descriptively. The parameters observed included feed consumption, harvest age, body weight gain, feed conversion ratio, and mortality. The results showed that the broiler chicken farm business of Andi Mukri was an individual household business which kept as many as 500 birds with a cage size of 15 meters x 8 meters. The average body weight on the 22<sup>nd</sup> days is 956,5 grams, and on the 42<sup>nd</sup> day, it reaches 4231,4 grams whereas, on the 35<sup>th</sup> day it is 175,4 grams/week and the 42<sup>nd</sup> day is 1115,8 grams/week. FCR of 0,7 %, mortality 0,8 %, age of harvest begins on day 24 to day 42.

**Keywords:** Broiler chicken, FCR, mortality, United Nations

### **A. Introduction**

Broiler chicken was one of the commodities of poultry that contributes significantly to the needs of the protein of animal origin for the people of Indonesia. The needs of chicken meat annually increase, because the price is affordable by all people. The advantages of animal proteins make the industry or livestock business a great potential to thrive. The role of Broiler chickens is significant in fulfilling the needs of the people of meat as nutritious food; this is given that the chicken population is large enough and its maintenance is almost all corners of the homeland (Amrullah, 2004).

Broiler chicken is a type of poultry that has a fast growth rate because it can be harvested at the age of 3 to 5 weeks. Chicken Farm Business is the most appropriate choice because Broiler chickens have efficient feed conversion that and cut at a relatively young age so that the circulation of maintenance is faster and efficient and produce good quality meat (Sulfanita, Roisu, Utami, 2011).

Business Broiler Poultry in Indonesia consists of two types of business that is a pattern of partnership that cooperates with the poultry companies in Indonesia, with the system of business contracts between the company and the farmers. The second pattern of Broiler chickens is an independent business pattern whose management and marketing are self-managed by Broiler chicken farmers. The business of Broiler Poultry self-reliant pattern typical by people in Kolaka District, South East Sulawesi, Indonesia consists of two business management namely maintenance business from DOC to harvest and business fattening Broiler chickens (Maintenance From age three weeks to harvest). Mr. Andi Mukri is one of the Broiler chicken farmers who applied the pattern of fattening Broiler chickens with the maintenance of Broiler chickens from the age of three weeks until harvest. Based on the background, researched case studies in a farm owned by Mr. Andi Mukri, who aims to know the management of chicken feeders Broiler.

## B. Methodology

### 1. *The Material*

Mr. Andi Mukri's Broiler chicken farm in the village of Anaiwoi district of Tanggetada district of Kolaka.

### 2. *Research Procedures*

Observe general observation about the prevailing situation in the farm is the condition of the farm Mr. Andi Mukri. Views examine explicitly the procedure of feedlot management Broiler chickens on the farm, Mr. Andi Mukri.

### 3. *Parameters of Research*

The parameters observed in this study include:

- a) Feed consumption. The amount of feed consumed by broiler chickens during maintenance to the harvest.

$$\text{Feed consumption} = \frac{\text{feed given}}{\text{Rest of the Feed}}$$

- b) Harvest Age. The harvest age is obtained during maintenance until the harvest.  
c) Weight gain (UN)

$$\text{Weight gain} = \frac{\text{Final weight} - \text{Initial weight}}{\text{Maintenance time}}$$

- d) Feed Conversion Ratio (FCR)

FCR is a number that indicates the amount of feed spent to produce 1 kg of body weight.

$$\text{FCR} = \frac{\text{Feed consumption}}{\text{Increase body weight}}$$

- e) Mortality. Mortality is a mortality rate in maintenance for a single product that is usually calculated in percentages.  
f) Average Harvest Age

### 4. *Data Analysis*

Data is analyzed quantitatively with measurements and calculates the average value of each research variable. Also, data is analyzed descriptively.

## C. Result and Discussion

### 1. *Business Overview of Fattening Broiler Chickens*

Broiler Farms located in the village of Anaiwoi district of Tanggetada District of Kolaka which is located near the market complex Anaiwoi. The owner of the farm is Mr. Andi Mukri, who started raising it in 2008. The business is a personal household business, no human resources

working on the farm. Location of Broiler chicken cage is very close to the house owner of the farm business precisely located in front of the owner's house farmer. The front of the cage faces the Rising sun, for the rear side of the enclosure facing the sundown. The cage area is 15 x 8 meters, the cage length is 15 meters, and the cage width is 8 meters. Type of cage that used a kind of stage cage model made of wood. Mr. Andi Mukri's ranch belongs to People's farms. The business pattern of Broiler chickens applied by Mr. Andi Mukri is a standalone pattern with a feedlot system. Mr. Andi Mukri fattens Broiler chickens at the age of 22 days. On the 22nd day the Broiler chickens are kept until it is harvested (sold out).

### 2. Feeding and drinking water

The method of feeding on the farm is Mr. Andi Mukri performed two times a day IE morning hours 09.00 WITA and afternoon at 15.00 WITA. Type of feed given in the form of granules, for additional feed usually Mr. Andi Mukri give feed mixture of various types of feed such as tofu pulp and other food remnants. For daily feed adjusted to the age of chickens and the number of chickens available. The feed acts as such a growth, described by Suprijatna, Atmomarsono, & Ruhyat (2005).

Drinking water intake is done in full feed (*adlibitum*) because water is an essential compound in life. Two-thirds of the animal's body is water with various roles for life. The amount of water had consumed by chickens who associated with the temperature in the cage, the more heat the temperature in the enclosure, the more water consumption. The amount of water consumed by chickens will affect the reduction of feed consumption. Water consumed must be free of toxic materials and heavy metals, clean, non-gross and odorless, do not contain chemicals and bacteria on a set threshold, and meet the standard standards for drinking water, both physically, chemically, and biology (Fadillah, 2005).

Chicken that is kept at low-temperature consumption of water is less than the broiler that is maintained at high temperatures. It was due to the high temperature of the chickens having hot heat that causes heat-filling in the body. To reduce heart-filling, chickens try to reduce feed consumption and increase consumption of drinking water (Wijayanti, Busono, & Indrati, 2011).



**Figure 1. Feeding**

### 3. A primer system

The home ground of Mr. Andi Mukri is facing the front of the sun to the back of the cage facing the sun setting. The inside of the pen consists of 4 partitions, the enclosure is 15 x 8 meters, while the cage length is 15 meters and the cage width is 8 meters. The type of cage used is the stage enclosure model.

### 4. Vitamin Feeding

Type of vitamin given in the Broiler chickens that belong to Mr. Andi Mukri is a type of vitamin Fortevit. Mr. Andi Mukri always gives the vitamin by mixing in livestock drinking water. The intake of vitamins combined in livestock drinking water is given 2 or 3 times in one week. Fortevit has three functions for poultry, including:

1. To accelerate the growth, reduce the mortality rate, overcome stress, improve the quality of ration, improve the conversion of quota and, increase production, the use rule given the 10 grams of forever for 60 liters of drinking water.
2. To Preventing disease due to vitamin deficiency, the rule of use for 10 grams forte it per 15 liters of drinking water.
3. To Maintaining high production, the rules of use for 10 grams of forever per 15 liters of drinking water.

Vitamin is an active substance and is indispensable for both humans and animals. Vitamin content is needed to achieve optimal health, as well as normal physiological functions such as growing, developing, sustaining life, and producing. Most vitamins cannot be formed naturally by poultry in adequate quantities for their physiologically needed so that this vitamin should be available in its packaging. The vitamins are contained in the feed ingredients in small amounts. If there is vitamin deficiency in the feed, due to not perfusion the absorption process, it can result in health and production becomes not optimal.

5. *Weight loss and weight increase*

The weight of chickens should be weighed every week. However, not all chickens have to be considered; quite a few samples are taken. Weighing is done to determine weekly weight gain

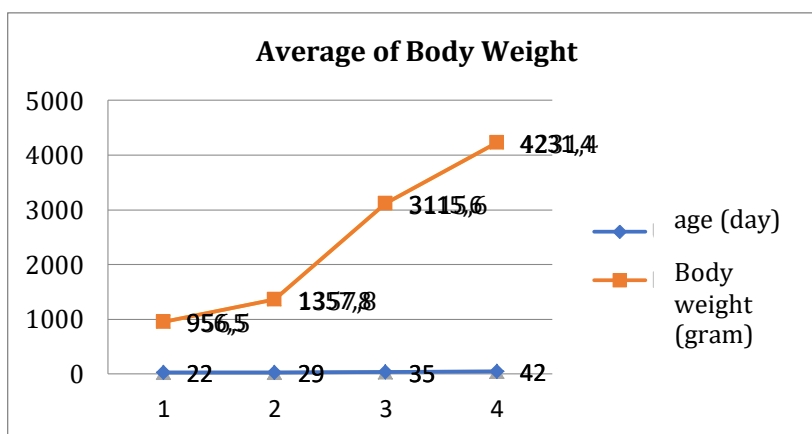


Figure 2. Body Weight of Broiler chickens during research

Graph 1 indicates that the rate of weight on the 22nd day is 956.5 grams and continues to increase until the 42 is 4231.4 grams. It can be seen in the picture that the importance of Broiler chickens during research is always expanding every week. It is according to the Lesson & Summers (2001) that the older the chicken age, the more feed consumed and used for basic living and growth.

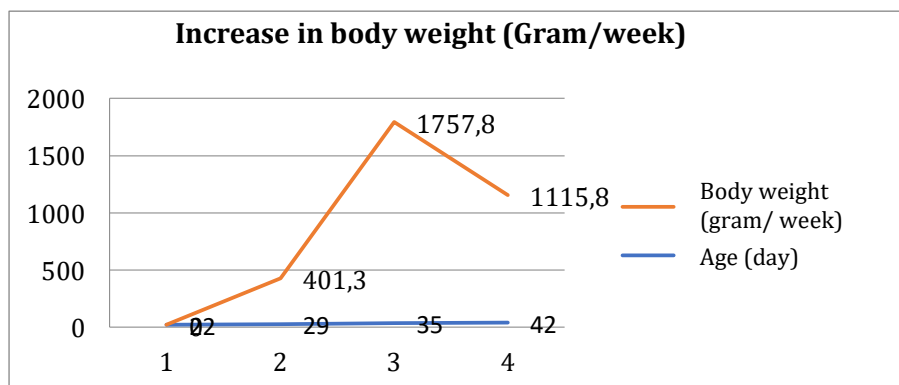


Figure 3. Broiler Chicken weight Increase during research

Graph 2 shows that the body weight of Broiler chickens on the 29th day amounted to 401.3 grams/week and on the 35 days of 1757.8 grams/week and on the day of 42 which stood to 1115.8 grams/week. Based on Graph 2, it can be known that the maintenance efficiency of Broiler chickens is ideal only up to the age of 35 days. After 35 days of raising maintenance, the UN will experience a decrease from 1757.8 grams/week to 1115.8 grams/week. Chicken weight gain is influenced by many factors, one of which is the rate of chicken consumption. Increase in body weight is influenced by feed consumption; if the feed consumption is good, then the increase in body weight will also be useful. It is by the opinion of Abidin (2002) stating that the factors that affect the weight gain are feed consumption. This opinion is also supported by Ichwan (2003) saying that, generally, weight gain will be influenced by the amount of feed consumed and nutrient content contained in the feed.

### 6. Conversion Feed

The feed conversion of the research results is 0.7. The value of FCR is a comparison of feed consumption with the increase in body weight gained within a certain period; FCR can be used to measure livestock productivity. Allama, Sofyan, Widodo, & Prayogi (2012) that low feed conversion value indicates that the efficiency of the use of functional feed because the more efficient the chickens consume feed to produce meat.

Conversion of feed or feed conversion ratio (FCR) is a comparison between the amount of feed (Kg) consumed with the weight of life (Kg) until the chicken is sold. Ideally, one kilogram of feed can produce a weight of 1 kg or even more. In Broiler chickens usually, target FCR = 1 maximum can be achieved before the chicken is two weeks old (FCR two weeks  $\pm$  1,047-1,071). After that, FCR will increase according to the age of chickens. FCR values are equal or smaller than standard, signifying the occurrence of feed efficiency supported by good maintenance governance. But if the value of the FCR is higher than the norm, then it indicates that there is a waste of feed as a result of the maximum feed benefits to the weight increase chickens

### 7. Mortality

Recording of activity reports every day has to be done since the DOC came. The report contains the number of dead chickens, the number of feeding, medicines, vaccines, and weekly weight.

**Table 1. Number of chicken mortality for maintenance of 500 tails**

| No              | age (days) | Total (tail) |
|-----------------|------------|--------------|
| 1               | 22         | 1            |
| 2               | 29         | 1            |
| 3               | 35         | 2            |
| 4               | 42         | -            |
| Total           |            | 4 ekor       |
| Mortalitas 0,8% |            |              |

Source: Chicken Farm Mr. Andi Mukri

Table 1 shows that at the age of 22 to 29 days the number of chickens that die is two tails, while at the age of 35 chickens die as much as two tails, the total number of chickens that died during the maintenance amounted to 4 tails — mortality percentage (mortality) of 0.8%. Mortality or mortality is a number that indicates the name of chickens that die during maintenance. Dying is an essential factor and should be considered in chicken farming development.

### 8. Harvest Age

The harvest of the Broiler chickens belonging to the Pak Andi Mukri starts from day 24 until day 42. The harvest is faster than the results obtained by (Kartasudjana & Suprijatna, 2010) stating that Broiler chickens are young male or female chickens that are generally harvested at the age of 5-6 weeks to be Producing meat. Broiler chickens are usually marketed at a live weight of 1.3-1.6 kg per tail with a 5-6 Week Harvest Age (Rasyaf,2012).

From table 2 shows the sale of chickens on the farm, Mr. Andi Mukri as much as 500 tails. Harvesting process on farms Mr. Andi Mukri is done every day when the buyer comes and at the time of booking. Chicken is harvested at the age of 24 days up or around the period of 3 weeks with a body weight of 956.5 grams/tail – 4231.4 grams/tail. The harvesting that belongs to this parameter is harvesting healthy chicken at certain body weight. So, the rejects chickens do not enter into this calculation.

The harvest period is the final stage of maintenance of Broiler chickens. Successor absence of commercial Broiler chickens can be known after all the chickens are harvested. The first schedule of the harvest is usually determined when the chickens will be preserved. However, it can change due to certain conditions such as sick chicken or because of the selling price factor. The post-harvest activity is collecting all cage equipment and cleaning it. Next, weigh the residual feed and record it and calculate the total chicken and the total weight of the chickens sold. Last evaluated the calculation of chicken production achievement (Fadillah, 2005).

**Table 2. Harvest Age**

| No | Umur (Hari) | Panen (Ekor) |
|----|-------------|--------------|
| 1  | 22          | 0            |
| 2  | 23          | 0            |
| 3  | 24          | 2            |
| 4  | 25          | 5            |
| 5  | 26          | 0            |
| 6  | 27          | 15           |
| 7  | 28          | 0            |
| 8  | 29          | 20           |
| 9  | 30          | 200          |
| 10 | 31          | 50           |
| 11 | 32          | 100          |
| 12 | 33          | 50           |
| 13 | 34          | 35           |
| 14 | 35          | 2            |
| 15 | 36          | 3            |
| 16 | 37          | 6            |
| 17 | 38          | 1            |
| 18 | 39          | 0            |
| 19 | 40          | 4            |
| 20 | 41          | 0            |
| 21 | 42          | 3            |

Source: Broiler Poultry, Mr. Andi Mukri

#### D. Conclusion

The conclusion this research were broiler Chicken Farms was a personal household effort maintained as many as 500 tails with a cage size of 15 meters x 8 meters; business Pattern Broiler Chicken Mr. Andi Mukri is a pattern of self-catering system funder; the weight rate on the 22nd day is 956.5 grams and on the day of the 42 is reaching 4231.4 grams. While on the day to 35 ie 1754 grams/week and day 42 of 1115.8 grams/week; FCR of 0.7, mortality of 0.8%, Harvest age starts on day 24 to day 42; and Feed done 2 times daily that morning and evening, while the drinking water is done by ad libitum so that the chicken will not lack drinking.

#### E. References

- Abidin, Z. (2002). *Penggemukan Ayam Pedaging*. Jakarta, Indonesia: PT. Agromedia Pustaka.
- Allama, H., Sofyan, O., Widodo, E., & Prayogi, H. S. (2012). Pengaruh penggunaan tepung ulat kandang (*Alphitobius diaperinus*) dalam pakan terhadap penampilan produksi ayam pedaging. *J. Ilmu - Ilmu Peternakan*. 22(3), hal: 1-8.
- Amrullah, I. K. (2004). *Nutrisi Ayam Broiler*. Bogor, Indonesia: Lembaga Satu Gunung Budi.
- Fadillah, R. (2005). *Kunci Sukses Beternak Ayam Broiler di Daerah Tropis*. Jakarta, Indonesia: Agro Media Pustaka.
- Ichwan, W. M. (2003). *Membuat Pakan Ayam Ras Pedaging*. Jakarta, Indonesia: Agromedia Pustaka.
- Kartasudjana, R. & E. Suprijatna. (2010). *Manajemen Ternak Unggas*. Jakarta, Indonesia: Penebar Swadaya.
- Lesson, S. & Summers, J. D. (2001). *Nutrision of the chickens*. 4th edision. , Gueld, Contario: University books.
- Rasyaf, M. (2012). *Beternak Ayam Pedaging*. Cetakan XXVII. Jakarta, Indonesia: Penebar Swadaya.
- Sulfanita, Roisu, E. M., Utami, D. P. (2011). Pembatasan ransum berpengaruh terhadap pertambahan bobot badan ayam broiler pada periode pertumbuhan. *Mediagro*. 7(1), hal. :59-67.
- Suprijatna, Atmomarsono, E. U., & Ruhyat, K.. (2005). *Ilmu Dasar Teknik Unggas*. Cetakan I. Jakarta, Indonesia: Penebar Swadaya.
- Wijayanti, R. P., Busono, W., & Indrati, R., (2011). *Pengaruh Suhu Kandang Yang Berbeda Terhadap Performans Ayam Pedaging Periode Starter*. Malang, Indonesia: Fakultas Peternakan, Universitas Brawijaya.