

# Technical Guidance on Broiler Chicken Maintenance Management in Livestock Businesses in Puosu Jaya Village, Konda District

*Harapin Hafid<sup>1</sup>, Siti Hadrayanti Ananda<sup>2</sup>, Anita Mustika Ibrahim<sup>3</sup>*

<sup>1</sup>Faculty of Animal Science, Halu Oleo University, Jl. H.E.A Mokodompit Kampus Anduonohu, Kendari, Southeast Sulawesi, Indonesia

<sup>2</sup>Department of Nutrition and Health, STIKES Karya Kesehatan, Kendari Southeast Sulawesi, Indonesia

<sup>3</sup>Animal Husbandry Study Program, Faculty of Agriculture and Animal Husbandry, Muslim University of Buton, Baubau, Southeast Sulawesi, Indonesia

**Abstract.** The activity aims to provide Technical Guidance on Broiler Chicken Maintenance Management for Breeders in Puosu Jaya Village, Konda District. The problem experienced was the low knowledge of the farming community about how to manage chickens so that they can increase their productivity. Community service activities are carried out by implementing a chicken intensification technology package so that it was more profitable and develops in the community, especially the breeder community. The method of activity was carried out in preliminary activities, counseling and demonstrations as well as evaluation design. It can be concluded that the community really needs guidance in developing the potential of broiler farms that they have been working on, which has an impact on increasing income and developing chicken population.

**Keywords:** Technical guidance, broiler, maintenance management, business

**Abstrak.** Kegiatan bertujuan untuk memberikan Bimbingan Teknis Manajemen Pemeliharaan Ayam Broiler Pada Peternak di Desa Puosu Jaya Kecamatan Konda. Masalah yang dialami adalah rendahnya pengetahuan masyarakat peternak tentang cara pengelolaan ternak ayam sehingga dapat meningkatkan produktivitasnya. Kegiatan pengabdian kepada masyarakat dilakukan dengan menerapkan paket teknologi intensifikasi ayam sehingga lebih menguntungkan dan berkembang di masyarakat khususnya masyarakat peternak. Metode kegiatan dilakukan dalam kegiatan pendahuluan, penyuluhan dan demonstrasi serta desain evaluasi. Dapat disimpulkan bahwa masyarakat sangat membutuhkan pembinaan dalam mengembangkan potensi peternakan ayam pedaging yang digelutinya, yang berdampak pada peningkatan pendapatan dan pengembangan populasi ayam.

**Kata Kunci:** Bimbingan teknis, broiler, manajemen pengelolaan, usaha

Received 18 August 2021 | Revised 5 November 2021 | Accepted 21 November 2021

---

\*Corresponding author at: Faculty of Animal Science, Halu Oleo University, Jl. H.E.A Mokodompit Kampus Anduonohu, Kendari, Southeast Sulawesi, Indonesia

E-mail address: \* harapin.hafid@uho.ac.id

## 1. Introduction

Broilers were livestock that have high growth rates fast in producing meat so it has enormous potential in the effort to meet the animal protein needs of the community. Demand for chicken is increasing along with the increasing income and awareness of the population of the importance of animal protein. [1] The chicken population broilers in Indonesia increased from 2 922 636 196 in 2017, to 3 169 805 127 tails in 2019. The growth and development of broiler chickens is very influenced by the nutritional content of the feed. In addition, the addition of additives in feed have been widely used to help the digestive process and improve digestion metabolism needed for the consumed ration to be efficiently use by the chicken body [2] [3] [4].

Farmer community groups in Konda sub-district were one of the existing community groups generally like to raise broiler chickens because it was easy to maintain even though this still in an extensive yard). But the weakness was because the maintenance system was still traditional and the absorption of technology for raising chickens wasn't yet popular in the community so that when a disease outbreak occurs it causes the population to decrease and not all people can.

Afford to replace seeds because the price of buying broiler chickens were enough expensive. Conditions like this cause people, especially those who have an interest in raising chickens becomes helpless. Broiler chicken breeding business was of special value where the main goal were to achieve good results, and this can only be achieved if the selection of seeds, processing (treatment), disease control, food factors and so on were really considered. Good seeds and superior quality but factor other supporters were less supportive, will not provide the desired result expected by [5] [6].

The above phenomenon is one of the bases for the proposed service activities community in the form of technical guidance on how to raise broiler chicken intensively by applying the broiler chicken intensification technology package, especially in coastal communities in the city of Kendari.

The implementation of the package was intended as an effort to improve the way community in managing chicken farms in the form of improvements in seed selection, how to control disease, good housing, feeding properly, post-harvest processing as well as business management and marketing by [7] [8] [1] [9].

## 2. Methods

### 2.1 Problem Solving Framework

Broiler chickens were generally familiar with people's lives, especially with people in agricultural areas. This was because the maintenance of broiler chickens was relatively easy, can adapt to any environment and has a high selling price because that very popular with the

community. However, this type of livestock is usually kept "on the spot" just to channel their health hobby (hobby) and at the same time become a savings that was sold at any time as well as family side dishes by obtaining eggs and so on.

Lack of knowledge of fishing communities on how to manage livestock Chicken was one of the factors that cause low chicken productivity broilers. Whereas if that managed in accordance with good management methods, it can guaranteed to get a much better result. which in the end will get open new jobs (businesses) as well as increase income for the community in the countryside.

This encourages the need to offer an appropriate technological innovation in the field of chicken farming in the form of efforts to implement chicken intensification technology packages broilers, especially for fishing communities in the Cybermas sub-district Konda sub-district, South Konawe district.

## **2.2 Realization of Troubleshooting**

Based on the problem-solving frame work that has been formulated, partnership between universities (Halu Oleo University Community Service Institute), with the community in Puosu Jaya Village, Konda District, South Konawe Regency, especially broiler breeders who live in the region. This partnership can realized thanks to the support of the Directorate of Research Development and Community Service Public. Broiler Chicken Cultivation Technical Guidance for Optimization Empowerment of Community Potential in Konda District was an innovation that carried out by lecturers at universities, and it was use was only in limited circles in higher education, through this activity, were introduced to community, so as to solve the identified problems.

## **2.3 Target Audience**

Community group members who were the target of this service activity were community members in Puosu Jaya Village who have broiler chickens or who were interested in broiler farming, especially the age group productive members (e.g. members of existing youth organizations) also include women agricultural workers who were interested in increasing their knowledge and skills.

## **2.4 Activity Method**

The method of activities carried out on preliminary activities, counseling and demonstration and evaluation plans implemented by [6] [10]

### **a. Preliminary activities**

This activity begins with making contact with the government Konda District, Konda Village Head, to convey the wishes of the parties implementing activities from universities to introduce

one alternative broiler chicken farming business that can be applied by the community by take advantage of the potential of the available land around their settlements.

#### **b. Counseling and Demonstration**

This activity aims to provide practical knowledge and skillsto the target audience, regarding the intensification of broiler farms foroptimizing the empowerment of community potential in the Village. Activities performedinclude:

- 1) Presentation of material about broiler chicken farming intensification technology package.
- 2) The percentage of how to make a simple broiler chicken coop that meets the requirements the health of livestock and humans around it
- 3) Percentage on the manufacture of brood stock, places to eat and drink, perch and nest.
- 4) Participate in a demonstration of livestock ration counseling that meets the nutritional requirements and production, both in the starter, grower and layer phases.
- 5) Participate in demonstrations of disease control by means of treatmentand vaccination of chicks and adults.
- 6) The percentage on how to raise livestock intensively starting from the selection of suitable seeds from hatching to harvesting results.

#### **c. Evaluation Plan**

The success of this activity can be viewed from two aspects, namely the implementation process activities and results achieved

- 1) From the aspect of the process, what were evaluated was the attitude of the community, especially the para broiler breeders in Puosu Jaya Village who participated in this training,of the material/information provided, and at the same time assessing the level of desire participants to apply the knowledge provided.
- 2) From the aspect of results, the community, especially broiler breeders in Puosu Village,Jaya, who was a participant in this training, was able to master and apply the techni quesraising chickens intensively in order to optimize potential empowerment community with the provision of this knowledge, was expected to be able to fill the timehis spwere time with productive activities in the form of raising broiler chickens, and more further more, can develop it into a home industry business.

### **3. Results and Discussion**

Based on the results of the evaluation, the results obtained in the activity community service in the form of technical guidance on how to raise purebred chickens broilers/broilers to optimize community potential empowerment in the village Puosu Jaya, Konda District, South Konawe Regency by the LPPM and Faculty Animal Science Team Halu Oleo University can be described as follows:

- 1) The training participants who were generally farmers and community members the surrounding residents were very responsive to the counseling materials delivered, This can be seen from their participation in counseling and demonstration activities on how to raise chickens intensively or intensification of broiler chickens and next series of activities.
- 2) The trainees were very active in adopting the demonstration material, this was evident with their activeness in the demonstration demonstration of making chicken coops, all trainees simultaneously take part in the making of simple cage and interested to imitate the cage that was demonstrated. They will prepare the cage materials themselves independently, with the model of the cage following the model provided.
- 3) The training participants were very responsive in participating in the tetelo and flu vaccination demonstration birds and how to treat sick chickens, how to prepare feed ingredients and preparation of animal feed, how to select chicken seeds, application of post-mortem technology harvest and how to market chickens.
- 4) In every series of activities, the training participants were always actively discussing and ask about things they don't know.
- 5) The training participants were ready to raise broiler chickens and plan to make broiler farming their business.
- 6) To facilitate coordination among breeders, both in terms of business management as well as livestock marketing, they have formed farmer groups consisting of 10 members, led by one as chairman, secretary and treasurer.
- 7) The training participants and community members around the training location have asked and expect the willingness of the Faculty of Agriculture Team to provide guidance follow-up, especially as a vehicle for their friends/discussions in raising livestock broiler chicken.

Training activities in the form of application of chicken intensification technology packages broiler to optimize community potential empowerment as an effort provide alternative livelihoods and help increase income community, has been carried out in Puosu Jaya Village, Konda District, Konawe Selatan by a team from LPPM, Faculty of Animal Husbandry, University of Halu oleo.

The material presented was in the form of: presentation of material about technology package intensification of broiler chickens, the percentage of how to make a broiler chicken coop that meets the health requirements of livestock and humans around it, presentations about making brood stock, places to eat and drink, perches and nest, demonstration of livestock ration counseling that meets nutritional requirements and production, both in the starter, grower and layer phases, demonstration of control disease by treating and vaccinating chicks and on adult chickens and the percentage on how to raise intensively starting from selection of good seeds from hatching to harvesting the results, has received a positive response and was quite satisfying considering that so far it had never been carried out similar activities. Whereas the people in Puosu Jaya Village in general maintain poultry, especially broiler chickens, although they were still traditional or maintained only as a sideline. However, that very helpful in meeting the needs of their family's life (economically that a source of income).

Question and answer or between the implementation team and the general target audience is a member of the community, takes place after counseling and demonstration. Lecture material that focuses on optimizing empowerment the potential of the community in Puosu Jaya Village, especially in business development broiler chicken farming, the benefits that can be obtained from livestock farming broiler chicken, development prospects and market opportunities, generally very attractive participants' attention and enthusiasm. Besides that they were also very interested in following lectures and demonstrations on how to prevent disease through ND vaccination (tetelo) and Avian Influenza (bird flu), which were generally constraining factors which they often encounter in raising chickens.

The target audience were also very interested in being taught how to select and compiling healthy and quality feed ingredients for poultry/chickens them, especially those around their village. So were they interested in being taught how to make a healthy but safe cage from attack beasts (dogs and monitor lizards attack), so far they only let chickens sleeping in the columns of the house above perched on the tree.

Extension activities and demonstrations on the implementation of the intensification technology package broiler chickens in the community in Puosu Jaya Village received great attention very serious from the participants which was marked by the presence of 100% of the participants participant Generally, they want to prove themselves the lecture material that has been taught conveyed to them. The participants were very active in making chicken coops, where within a week the chicken coop and equipment have been completed and ready to operate.

The initial stage of the demonstration material was to teach prospective breeders to know good chicken seeds, whether it be chicks, hens or adult chickens. In this case, were also taught how to select chickens based on the sex of the chicks so they can plan whether to do enlargement/fattening chickens against male breeds and the master plan for female breeds.

Next was a demonstration on how to choose the appropriate feed ingredients with the condition/availability of feed ingredients from the surrounding werea. In this case that Most of them were bran, remnants of making tempeh and tofu, snails, kale, natural grass, cassava and the remains of unhulled rice scattered in the fields after the rice harvest. That recommended to give food first in the morning before the chicken released and given full food during the day. Drinking water must be prepwered always and every day the place was replaced/cleaned.

The next stage was taught how to manage livestock, namely how to manage children chickens, hens/teenagers, hen and roosters. Taught how many types ratio The suitable sex was 1: 6 for chicks. Similarly, the age for chickens female eggs were used as seed eggs (hatches).

In the demonstration of how to prevent disease, that done in two ways, namely: vaccination of chicks and hens/adults. In chicks, vaccines from strain For La Sota, which was put in the eyes, nose, beak or drinking water, or can also by spraying. Meanwhile, in adult chickens, it was done by injection on breast or thigh meat, with a dose of 0.5 cc. Due to the normal ND (tetelo) outbreak at the change of seasons, that recommended to vaccinate around 1 or 2 months before the change of season. The period of immunity caused by vaccination is 3 months so that the next injection was done every three months as well.

Avian Influenza or bird flu vaccination were carried out using a vaccine Medivac AI subtype H5 was inactive, produced by Medion Bandung. This type of vaccine is emulsion oil adjuvant injected IM (intramuscularly) on chicken breast. The dose used was 500 doses in 250 ml packages. Domestic bird flu vaccine The country that has been circulating in Kendari City.

The cage that was demonstrated was a stage cage measuring about 3 x 5 m<sup>2</sup>. This will help to cope with relatively hot temperature conditions (temperature daily around 32-35°C besides that the chicken will be protected from wild animals such as mice, dogs and lizards. The cage material were made from a combination of forest wood, bamboo slats and used beams. The roof were made of thatch while the walls were made of slats bamboo and forest wood.

The final stage of the counseling and demonstration materials were teaching community about post-harvest methods and marketing broiler chickens. In terms of that taught how to cut a good and halal chicken, how to pluck feathers, removing offal and how to produce a good carcass. The farmers were given opportunity to choose whether to harvest/sell their chickens in the form of live or in carcass form. Of course, by describing the advantages and deficiencies that can occur. For marketing was recommended to find customers long before the chickens were harvested whether it be a restaurant, restaurant/canteen, hotels/inns, markets, supermarkets and so on were located around the city Kendari and the surrounding districts.

From the results of this activity, that hoped that it will increase the chicken farming business broilers, especially in the farming community at the location of the activity and can be

emulated by other communities around them. By providing the knowledge and skills that better about how to raise broiler chickens will ultimately have an impact on increasing the income of the people who work on it, especially in Puosu Village Jaya, Konda District, South

Konawe Regency. Participants' responses to the activities training, among others, manifested by a number of questions about various concerning the material and business prospects of raising broiler chickens that were trained. If you look closely, there were several things that were supporting factors and factors the obstacles in this training activity were:

### **3.1 Supporting factors**

- 1) The response of the training participants to the material was generally quite high. This matter was the main capital for the LPPM Team/Faculty of Animal Science, Haluoleo University to carry out further activities.
- 2) In general, the farming community in Puosu Jaya Village, Konda District have or have raised poultry, especially broiler chickens, making it easier in applying broiler chicken intensification technology.
- 3) There was a desire from the training participants to raise broiler chickens professionally and make it the main source of income in addition to farming/gardening.
- 4) In general, the trainees asked to be given further guidance, mainly concerns the way of raising the most profitable preparing chicken seeds by artificial hatching.
- 5) This training activity has stimulated the creativity of the trainees who were generally members of the farming community, so that their empowerment can be carried out in a more focused manner.

### **3.2 Obstacle Factor**

Although the driving factor was quite dominant in this training activity, however, there were also inhibiting factors, especially the obstacle to the outbreak of bird flu (Avian Influenza) which at the time of this activity was carried out a lot of attacking livestock pure bred chickens and broilers in Kendari City. Provincial Livestock Service Sub-Department Report Southeast Sulawesi stated that there were three sub-districts that have tested positive for the infection bird flu outbreak in Kendari City, namely Mandonga District, Kendari District West and Poasia Districts and Konda Districts. Meanwhile, in the area of South Konawe Regency, especially in the Landono Subdistrict, including in Puosu Jaya Village, no outbreaks of bird flu have been reported, except for tetelo disease (ND).

Tetelo disease (ND) which often attacks broiler chickens change of seasons, also in the form of a lack of knowledge of the participants about the problems husbandry, especially regarding how



to raise chickens from the childhood stage(starter) to the production phase (layer). If this wasn't addressed with intensive counseling/guidance activities, it will again reduce the spirit of doing business.

#### 4. Conclusion

The training participants consisting of farmers were quite enthusiastic about receiving the material and actively participating in broiler management training activities. The lack of knowledge and skills of participants indicates the need for intensive technical guidance. The training participants were very excited to make broiler farming their main livelihood. Maintenance of broiler chickens with better management will increase carcass production and a lot of meat so that it will increase the income of the farming community

#### REFERENCES

- [1] Badan Pusat Statistik. (2020). *Broiler Population by Province, 2009-2019* [Online]. Available: <https://www.bps.go.id/linkTableDinamis/view/id/1034>.
- [2] H. Sari, Hafid, and A.M. Tasse, "Study of carcass and non-carcass production of free-range chicken by giving commercial rations substituted with soybean husk flour". *Journal of Tropical Animal Husbandry Science and Technology*. vol. 3. pp. 67 – 80. 2016.
- [3] H. Hafid, A. Napirah, and N. Marlina. "The comparison of carcass production of chicken based on slaughtering age intraditional farming system" in *ADRI International Multidisciplinary Conference 12th*, Bogor, 2017. pp.189 – 191.
- [4] M.A. Pagala, H. Hafid, N. Sandiah, and D. Zulkarnaen. "Chicken production in Indonesia: A review". *International Journal of Poultry Science*. vol. 18. pp. 131 – 138. 2019
- [5] Gunawan. "Evaluation of domestic chicken development model in Indonesia: the case in East Java". Proceedings of the National Workshop on Technology Innovation for the Development of Local Chicken. Center for Livestock Research and Development: Bogor. 2005.
- [6] H. Hafid, Nuraini, Indrawati, and S.H. Ananda, "Strengthening student skills through training in making meatballs with culled chicken meat". *Journal of Science Transfer*. vol. 2. pp. 74 – 83. 2019.
- [7] B.A. Murtidjo, "Guidelines for Breeding Broiler Chickens". Yogyakarta: Kanisius, 1992.
- [8] M. Rasyaf, "Management of Broiler Farms". Jakarta: Self-help Disseminator, 2002.
- [9] P.Patriani, H. Hafid, Hasnudi, and R.E. Mirwandono, "Climatology and Livestock Environment". Medan: USU Press, 2019.
- [10] H. Hafid, P. Patriani, S.H. Ananda, L.M. Aslan, and Nuraini, "The implementation of intensification of native chicken to increase the fishermen's income". *Journal of Scientific Transfer*. vol. 2. pp. 195-203. 2019.