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## Reproductive Health Counseling for Gilt and Sow

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#### ABSTRAK

Peternakan babi dara dan indukan di desa Golo Wua mengalami masalah dalam menangani kesehatan reproduksi. Untuk mengatasi masalah ini, tim pengabdian kepada masyarakat dari Universitas Katolik Indonesia Santu Paulus Ruteng melakukan penyuluhan menggunakan metode ceramah secara langsung bagi para peternak dengan jenis penelitian kualitatif. Metode pengumpulan data yang dilakukan secara observasi, wawancara, dan dokumentasi. Sasaran dari kegiatan penyuluhan ini adalah peternak babi, khususnya yang memelihara babi dara dan indukan. Penyuluhan ini dilakukan di balai desa Golo Wua dan dihadiri oleh 33 peternak. Hasil dari kegiatan penyuluhan menunjukkan bahwa pengetahuan peserta mengenai penanganan kesehatan reproduksi untuk babi dara dan indukan meningkat setelah mengikuti penyuluhan. Oleh karena itu, dapat disimpulkan bahwa penyuluhan merupakan metode yang tepat untuk meningkatkan pemahaman peternak babi dalam mengatasi masalah yang terkait dengan kesehatan reproduksi babi dara dan indukan. Adapun implikasi penelitian ini yakni kesehatan reproduksi hewan peningkatakan dan optimalisasi produktivitas. Tujuan utama penelitian ini ialah salah satunya meningkatkan kesadaran petani tentang pentingnya kesehatan reproduksi pada gilt dan sow., ini melibatkan edukasi tentang siklus reproduksi, tanda-tanda kesehatan reproduksi yang baik, dan dampak praktik manajemen terhadap kesehatan reproduksi hewan.

#### ABSTRACT

Heifer and sow pig farms in Golo Wua village are experiencing problems in managing reproductive health. To overcome this problem, the community service team from the Indonesian Catholic University Santu Paulus Ruteng conducted outreach using the lecture method directly for breeders using qualitative research. Data collection methods were carried out through observation, interviews, and documentation. The target of this extension activity is pig farmers, especially those raising heifers and sows. This counseling was carried out at the Golo Wua village hall and was attended by 33 breeders. The results of the outreach activities showed that participants' knowledge regarding reproductive health management for heifers and sows increased after attending the outreach. Therefore, counseling is the right method to increase pig breeders' understanding in overcoming problems related to the reproductive health of heifers and sows. The implications of this research are improving animal reproductive health and optimizing productivity. The main objective of this research is to increase farmer awareness about the importance of reproductive health in gilts and sows. This involves education about the reproductive cycle, signs of good reproductive health, and the impact of management practices on animal reproductive health.

#### 1. INTRODUCTION

Pig farming is one of the jobs pursued by people in Manggarai Regency, especially in rural areas. Pig farming is a side business carried out by rural households in Manggarai. Previous research reported that pig farming is a common occupation among households in rural areas (Chen et al., 2022). For people in Manggarai Regency, raising pigs is mostly done for traditional needs and other social activities. Previous research reported that in Manggarai Regency, raising pigs is popular with the community because it allows farmers to become meat producers, earn income, improve the social standing of the community, and support the family economy (Luju et al., 2023; Sam & Manado, 2023). Pigs are widely preferred for farming because pork is a cheap source of animal protein (Lavery et al., 2018). Apart from

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that, pigs have the advantage of being very productive with a high birth rate of 10-14 piglets/birth (Andersson et al., 2016). Pig farming, although it has advantages, turns out to have disadvantages, one of which is reproductive health problems. Reproductive health problems often occur in the field and have an impact on livestock populations. Previous studies show that reproductive health problems are serious problems that need to be addressed in the field (Atawalna et al., 2021). Furthermore, previous research reported that several factors that greatly influence the high and low reproductive rates of livestock include age at puberty, conception rate, calving interval, service period, services per conception, calving rate, and duration of pregnancy (Pohontu et al., 2018; Yusri, 2020)

Pig reproductive health problems are a serious problem that farmers need to know about. Decreased reproductive performance is influenced by low or high parity, increased outdoor temperature, decreased lactation feed consumption, single insemination, increased length of lactation, long weaning interval to first mating, low birth weight or low growth rate before weaning, few pigs are born. living at parity 1, an increase in the number of stillborn piglets, the practice of foster pigs or sows, and low or high age at first mating (Koketsu et al., 2017). Reproductive health problems in pigs, including reproductive failure in sows and sows, are a concern in Golo Wua Village, Wae Ri'i District. Farmers in villages lack the knowledge and skills to handle this problem. They have not received assistance or training to improve their abilities, both in terms of education and handling pig reproductive health problems. Previous research shows that overcoming livestock reproductive health problems requires special skills from (Astuti et al., 2023; Bampi et al., 2020) To achieve successful management of livestock reproductive health requires careful planning, good organization, proper implementation, and control of reproductive factors using available resources. This is expected to increase livestock productivity, animal health and reproductive quality according to the desired standards (Lenzun et al., 2021; Mashur et al., 2019)

The impact of low knowledge about pig reproductive health by pig farmers can affect income. Therefore, empowerment is needed, one of which is education about livestock reproductive health which aims to increase the income of pig farmers. It is hoped that reproductive health education can increase the number of offspring from these pigs. It is hoped that increasing the number of offspring will be a form of increasing the standard of living and welfare of farming communities. Previous studies report that increasing income is very necessary to improve people's living standards (Sirat et al., 2021; Unsunnidhal & Suryawati, 2020) Other research also reports that income for breeders can be increased through improving the handling of reproductive characteristics, providing motivation to breeders, and providing good cultivation practices, selecting good livestock seeds based on their reproductive characteristics so that breeder income can increase (Hartady & Widyastuti, 2019; Mutenje et al., 2020) Therefore, the need for education in the form of more comprehensive counseling and learning about the types and signs of disease and how to prevent it needs to be instilled in dairy farmers. Livestock reproduction must continue to be improved through handling disturbances and optimizing reproduction so that shorter day open and calving intervals are obtained. The novelty of this research can explore the integration of animal welfare concepts in reproductive health education. This includes an understanding of how good management practices can improve animal welfare, as well as an approach that considers the animal's emotional and physical needs. A community service program is needed to overcome the problem of community knowledge about female pig reproductive health and breeding in Golo Wua Village, Wae Ri'i District (Riduwan, 2016). It is reported that educational activities for the community can be carried out through various activities such as counseling, courses, training, workshops and job training to increase human resource capacity. Previous community service activities reported that efforts to increase knowledge were carried out through education and discussion about the importance of livestock reproductive health management (Unsunnidhal et al., 2021).

Other community service activities also report that community service activities can provide benefits in the form of increasing farmers' knowledge capacity in reproductive management (Sirat et al., 2022). It has been reported that livestock reproductive health education through community service schemes can increase farmers' knowledge and skills in understanding and practicing livestock reproductive health management (Rasad et al., 2020). Extension is a way for farmers to learn from experience and knowledge, resulting in better and more accurate decision making skills (Hifizah & Astati, 2015). Based on the description above, pig farming in Golo Wua Village, Wae Ri'i District requires education in the form of counseling to overcome reproductive problems faced by sows. One way to overcome this problem is through reproductive health education activities specifically designed for pig farmers in the area. It is hoped that this activity can overcome the challenges experienced by the target group in the region. Therefore, the community service activity entitled "Instruction on Reproductive Health for Mothers and Mothers for Farmers in Golo Wua Village, Wae Ri'i District" is very important and needs to be implemented. The aim of this research is to increase farmer awareness, one of the main objectives is to increase farmer awareness about the importance of reproductive health in gilts and sows.

This involves educating about the reproductive cycle, signs of good reproductive health, and the impact of management practices on the animal's reproductive health as well as increasing practical knowledge to provide farmers with practical knowledge about the steps they can take to improve the reproductive health of their gilts and sows. This includes information on proper nutrition, good environmental management, regular health monitoring, and disease prevention measures.

#### 2. METHOD

This research uses a qualitative approach. Qualitative research is research based on an inductive mindset to try to solve problems (Harahap, 2020). The target group for this Community Service activity is the farming community in Golo Wua Village, Wae Ri'i District. Farmers who participate in this Community Service activity are those who raise pigs and pigs that have reproductive health problems. The aim of this community service program is so that farmers can independently implement health management on their gilts and sow after carrying out this activity. The process of Community Service activities includes preimplementation, implementation and evaluation stages. The pre-implementation stage of Community Service activities includes determining the target group, selecting resource persons, and determining the time and location of the activity. Golo Wua was chosen as the target group by the research team in this community service program, because it is a village associated with the Indonesian Catholic University Animal Husbandry Study Program. The reproductive health of sows and sows is a serious problem facing farmers in the area. The speakers involved in this activity are expert lecturers in the field of livestock reproduction, and the implementation takes place in a traditional house in Golo Wua Village. Implementation of this Community Service activity includes providing information about the reproductive health of sows and sows using counseling methods. Before counseling begins, a pretest is carried out to measure the breeder's knowledge of the reproductive health of the dam and dam. After completing the pretest, an outreach session begins which aims to provide farmers with an understanding of the reproductive health management of sows and sows. After the counseling, a discussion session was held. After the discussion, the activity continued with evaluating the farmer's knowledge of the reproductive health of sows and pigs through a posttest. Pretest and posttest data were obtained through a questionnaire consisting of 5 questions related to the reproductive health of sows and pigs. Pretest and posttest data were analyzed quantitatively and presented in diagram form to measure participants' level of knowledge before and after the counseling session. Contains how to collect data, data sources and how to analyze data.

### 3. RESULT AND DISCUSSION

#### Result

#### **Pre-implementation Stage**

Pre-implementation of activities was carried out by the community service team at the Santu Paulus Ruteng Indonesian Catholic University campus. In the pre-implementation stage, the team succeeded in determining the location and date of the event, selecting speakers, and developing a pretest and posttest. Documentation of pretest activities can be seen in Figure 1.



Figure 1. Pre-Implementation of Community Service Activities

#### **Implementation Stage**

This community service activity was carried out on December 9 2023 at the Manggarai Mbaru Gendang traditional house in Golo Wua Village through face-to-face interaction with participants. The theme of community service is reproductive health education for sows and raising pigs among breeders in Golo Wua Village, Wae Ri'i District. The speaker at the event was a lecturer at the Indonesian Catholic University Animal Husbandry Program, Santu Paulus Ruteng. There were 33 participants who attended this activity, and all of them were pig breeders from Golo Wua Village, Wae Ri'i District. Documentation of pretest activities can be seen in Figure 2.



Figure 2. Participants in Community Service Activities

Implementation of this activity involves socialization using the lecture method. Before the presenter delivers the socialization material, it begins with a pretest to assess the participants' initial knowledge. After participants fill out the questionnaire as a pretest, the presentation of the socialization material continues. In this socialization session, the presenters conveyed several important points, such as how to choose sires as sires, criteria for good sires as sires, the right age for mating sires, heat detection, signs of lust, and reproductive problems in sires. For sows, the speaker provides knowledge about the reproductive cycle, observing signs of lust, the right time for mating, characteristics of pregnant animals, and problems or disorders in animal reproduction. Outreach activities are documented, as shown in Figure 3.



Figure 3. Speaker Explains Reproductive Health of Parent and Mother to Participants

The presentation of material by the presenters at this activity succeeded in attracting the interest of pig breeders. This can be seen from the high enthusiasm of the pig farmers during the discussion session. The discussion session was held interactively between farmers and presenters. The discussion in this activity focuses more on farmers' experiences in reproductive cases such as dystocia, lymphomania, and the challenges faced by farmers in determining the right time to mate female pigs during estrus. Documentation of extension activities can be seen in Figure 4.

#### **Evaluation Stage**

The evaluation carried out on this community service activity is in the form of a posttest. The posttest is a questionnaire containing several short questions that need to be answered by each participant who has attended the counseling session. The evaluation results, documentation of evaluation activities in community service can be seen in Figure 5, while those presented in posttest form are shown in Figure 6.



Figure 4. Discussion between Participants and Presenter



Figure 5. Atmosphere During Pretest and Posttest

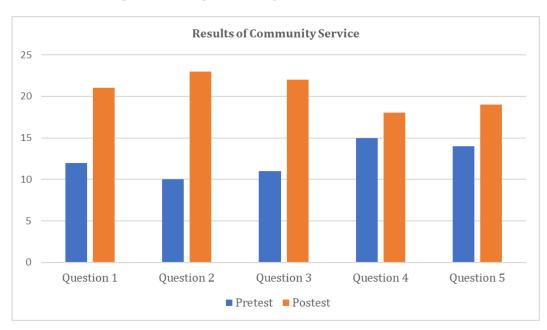


Figure 6. Community Service Pretest and Posttest Results

Based on the information in the graph, it can be concluded that for Question One, 12 people were able to answer correctly, while 21 people were unable to answer; 10 people answered the second question correctly, while 23 people were unable to answer; 11 people answered the third question correctly, but 22 people were unable to answer; 15 people answered the fourth question correctly, but 18 people were unable to answer it; The fifth question was only answered correctly by 14 people, while 19 people were unable to answer it.

#### Discussion

Community service activities are carried out through three stages, namely pre-implementation, implementation and evaluation. This is in accordance with previous reports on community service activities that there are three stages in community service activities, namely pre-implementation, implementation and evaluation (Bulu, Angi, et al., 2019; Wulandari et al., 2020). Previous researchers also reported that three stages in community service activities must be fulfilled, namely preparation, implementation and evaluation of activities (Bulu, Wera, et al., 2019; Setyawan et al., 2021). Previous research findings explain the aim of identifying knowledge and awareness of dairy farmers about the types and signs of reproductive diseases and how to prevent them. The pre-implementation stage of community service activities is the initial step that needs to be taken before the actual implementation of the activity. At this stage the community service team will prepare everything to support the smooth implementation of community service activities. Previous community service activities reported that the preparation stage was important to prepare everything related to the activity plan (Jafar et al., 2022). Apart from that, things that need to be prepared at the pre-implementation stage of community service activities include the theme, implementation plan, and resource persons who will deliver the material (Anisa et al., 2021; Koni et al., 2022).

Implementation of community service activities in the form of outreach, with the aim of providing knowledge about reproductive health in pig farming and pig farming. Previous community service activities reported that the lecture method was a method that could increase the target group's knowledge and interest in the material provided, thereby achieving the goal of community service (Kamarni et al., 2023). Community service activities can increase knowledge, skills and attitudes towards the problems faced by the target group (Kurniawati et al., 2020; Peternakan & Ulm, 2020). Evaluation of community service activities is carried out using pretest and posttest. The pretest and posttest were used to assess the participant's level of knowledge regarding the counseling provided by the community service team. The results of this community service activity showed that from the five questions asked, all participants showed an increase in knowledge after attending the counseling session. This finding is in line with previous activities which highlighted the effectiveness of the pretest and posttest in measuring participants' level of knowledge before and after receiving education from the community service team (Rasad et al., 2020). Previous researchers also reported that knowledge gained through education during community service activities can be assessed using pretest and posttest methods (Luh & Sumardani, 2014; Rinca et al., 2023). The implication of this research is improving the reproductive health of animals, where effective education can help farmers understand the best practices for maintaining the reproductive health of their gilts and sows. This can reduce the risk of reproductive diseases, such as infertility, abortion and other reproductive health problems and optimize productivity. By ensuring good reproductive health in gilts and sows, farmers can optimize the productivity of their farms. This could have a positive impact on pork availability, as well as on agricultural income and sustainability. The limitations of this research are that farmers in remote areas may experience difficulties in accessing reproductive health education due to limited access to technology or adequate education facilities. The recommendation for these limitations is to implement a community-based approach that involves the active role of the community in designing, implementing and evaluating reproductive health education program.

#### 4. CONCLUSION

Reproductive health is a serious problem faced by pig farmers and breeders in Golo Wua Village, Wae Ri'i District, Manggarai, East Nusa Tenggara. The methods used in this community service activity include pre-implementation, implementation and evaluation. From the results of this community service activity, it can be seen that farmers' knowledge about the reproductive health of mothers and breeders tends to be lower before the extension than after attending the extension.PReproductive health education for gilt and sow farmers has great potential to improve animal welfare, agricultural productivity and the sustainability of the agricultural sector as a whole. With proper attention to existing challenges and opportunities, this extension can be an effective tool in achieving these goals.

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