

# Optimization Management Farm Cow For Improvement Productivity

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**Abstract.** Community service program public This aim For increase skills and knowledge breeders cow in matter management cage , giving feed , as well as maintenance health livestock to support improvement productivity . Activities implemented by the Ngudi Waluyo University Community Service Team with method counseling , training , practice directly , and mentoring participatory . Observation done For evaluate changes in conditions cages and health livestock , while pre-test and post-test are used For measure improvement knowledge breeders . Results of activities show existence repair significant in practice fields , including cleanliness more cages awake , implementation good ventilation , as well as use feed more fermentation and chopping efficient . In addition , the condition cow seen more Healthy with improvement body weight and decrease case disease . Test results show improvement knowledge breeders , from domination category low before training become majority category tall after activity . Conclusion of this program is that optimization management farm cow through approach participatory can increase skills technical at a time expand outlook breeders . Activities This No only impact on productivity livestock , but also on welfare breeders as well as resilience food animal protein based .

**Keywords :** Devotion Society , Management Cage , Efficiency Feed , Productivity Livestock

## Introduction

Cow cut is one of the commodities farms that have role strategic in support resilience food national (Alimuddin et al., 2024; Hermawan) . Needs will meat cow as animal protein sources Keep going increase along growth amount population and awareness public to importance nutrition balanced . However , the reality on the ground show that part big production cow cut in Indonesia still relying on people's livestock farming with scale business small and simple management . Conditions This cause productivity cattle not optimal, so that often not capable fulfil market needs in general maximum (Novarista et al., 2025) .

Problems faced smallholder farmers in general related with management cage , system giving feed , and aspects health livestock . Many pens were built in a way traditional without notice standard cleanliness and comfort , so that impact on health cow (Karni et al., 2024; Luju et al., 2024) . Additionally , patterns giving feed often only depend on greens as is without notice need nutrition which is balanced . Dependence on fresh forage also results problems in the season dry season , when availability feed become limited . This is result in growth weight cow not optimal, even risky lower health cattle .

On the other hand , the use of technology appropriate in farm people's cattle are still very limited (Al Gifari et al., 2025; Rahmawati & Ratri, 2021) . Machine enumerator feed , technique manufacturing feed fermentation like silage , as well as sanitation strategies modern cages yet Lots implemented in a way area . Limitations knowledge and skills breeders be one of inhibiting factors improvement productivity . Therefore that , intervention in the form of mentoring , training and education from college tall become very important For answer challenge the .



As part from commitment three pillars college high , the Ngudi Waluyo University Community Service Team was present For give contribution real through activity devotion society focused on optimization management farm cow (Kango et al., 2021) . This program aim For increase skills breeders in management cage , arrangement rations more feed efficient , and utilization technology appropriate in provision feed . With approach participatory , activities This expected No only give knowledge new , but also encouraging change behavior breeders in practice daily .

Through activity devotion This time , Ngudi Waluyo University is trying to bridge gap between theory and practice , as well as strengthen synergy between the academic world with society . The hope is that success in optimize management farm cow will impact directly on the increase productivity livestock , welfare breeders , and ultimately support effort government in strengthen resilience food animal at the level local and national .

### **Method**

Activity devotion community service carried out by the Ngudi Waluyo University Community Service Team use approach participatory , where the farmer involved in a way active in every stages activities . Implementation methods arranged in a number of stage following :

1. Stage Preparation
  - Do internal team coordination devotion For compile plan work , material training , as well as prepare necessary tools and materials , such as machine enumerator feed , ingredients For manufacturing silage , and modules counseling .
  - Weaving communication beginning with group breeders cows on site target For determine needs , time , and technical implementation activity .
  - Arranging instruments evaluation pre -test for measure level knowledge breeders before activity implemented .
2. Identification Problems and Needs
  - Do observation direct to farm cow owned by public For see condition cage , system feed , as well as health cattle .
  - Interview short with breeders about constraint main in maintenance cow , good from aspect cages , feed , and disease .
  - Identification results used as base For determine focus material training and practice field .
3. Socialization and Counseling
  - Give material about importance management healthy cage , efficiency feed and health cattle .
  - The material was delivered with Language simple , accompanied by example real and visual media such as posters, short videos , and simulation case .
  - Emphasize role pen clean in prevent disease as well as the impact to growth cow .
4. Training and Demonstration
  - Management Cage : Practice direct method organize cage to have ventilation good , lighting enough , and system disposal hygienic dirt .
  - Feed Management : Demonstration use machine enumerator feed For make things easier giving greenery .
  - Fermented Feed Making : Training manufacturing silage and hay using material local like straw and grass elephant .
  - Livestock Health : Education about prevention diseases , administration of vitamins, as well practice sanitation pen .
5. Mentoring Field
  - The team did regular visits to pen breeders For monitor implementation skills that have been taught .
  - Give direction and correction if There is error in practice management pen and feed .
  - Push breeders For each other share experience through discussion group small (focus group discussion).
6. Evaluation and Monitoring
  - Carry out evaluation final (post-test) for measure improvement knowledge breeders after follow activity .

- Measure impact implementation of the program on condition cage , pattern giving feed and health cattle .
  - Take notes existence change productivity cows , such as improvement body weight and weight loss number pain .
7. Action Continuation and Sustainability
- Push formation group breeders fostered so that activities can continue in a way independent .
  - Compiling a report devotion as form accountability academic at a time documentation practice Good .
  - Offering advanced programs in the form of training processing waste farm become fertilizer organic For increase mark plus business .

### Results and Discussion

Implementation devotion community conducted by the Ngudi Waluyo University Team provides impact real for improvement skills breeders cow in management cage and efficiency feed . Impact the can seen from two aspects , namely : (1) change condition field based on observation , and (2) improvement knowledge measured breeders through test pre -test and test final (post-test).

Observation done before and after activity For see to what extent improvements have occurred in the field . Observed aspects covering management cage , system giving feed and health cattle .

Table 1. Observation Results Condition Farm

Aspect Observation	Condition Before the Program	Condition After the Program
Management Pen	Pen not enough clean , dirt stacking , ventilation not enough Good .	Pen more clean , dirt managed regularly , ventilation and lighting getting better .
Feeding System	Giving feed only in the form of fresh greens as available , without enumeration .	The feed is ready chopped use machine , more easy consumed cows , plus silage results fermentation .
Livestock Health	A number of cow looks thin, vulnerable attacked disease skin and breathing .	Condition cow more healthy , weight gain , cases disease decrease after sanitation pen applied .

From the table the seen existence improvement significant in three aspect main , especially in utilization technology simple ( machine enumerator feed ) and application sanitation cage . This is prove that breeders No only accept knowledge , but also capable practice skills new .

For measure understanding breeders , team devotion give a pre-test before activity started and post-test after activity finished . Test contains 20 questions about management cages , feed and health cattle .

Table 2. Test Results Knowledge Breeders (Pre-test and Post-test)

Value Category	Pre-test ( Number of Breeder )	Post-test ( Number Breeder )
High ( $\geq 80$ )	2 people (10%)	12 people (60%)
Moderate (60–79)	6 people (30%)	7 people (35%)
Low ( $< 60$ )	12 people (60%)	1 person (5%)
Total	20 people (100%)	20 people (100%)

Test results show existence improvement significant . Before activities , some big breeders (60%) are in the category low . After activities , the majority breeders (60%) already is in the category high , and only 5% still be in the category low .

Results of service community carried out by the Ngudi Waluyo University Team shows existence impact real to improvement skills and knowledge breeders cow in matter management cage , giving feed and health livestock . Discussion This focused on two aspects , namely repair practice field based on observation , and improvement knowledge breeders based on results test .

Before activity done , partly big pen cow in condition not enough well maintained . Dirt pile up so that cause smell No delicious , ventilation No adequate , and lighting limited . Condition

the cause cow prone to disease, especially disturbance breathing and disease skin. After done training and mentoring, livestock breeders start apply management more cages good, like clean pen every day, repair ventilation, and regulate flow air as well as lighting. Changes This in line with theory management cattle according to Siregar (2019), who emphasized that sanitation pen is factor important For guard health cows and prevent distribution disease.

In this aspect feed, before program implementation, livestock breeders Still give feed as is in the form of grass fresh green without processing moreover before. This is often results in cow difficult digest feed optimally. Through activity training, livestock breeders introduced to the technique enumeration feed use machines, as well as utilization silage results fermentation. Innovation This proven make it easier cow in consume feed, increase efficiency absorption nutrition, as well as reduce waste. Findings This supported by opinion Hardjosubroto (2018) stated that that processing feed through shredding and fermentation can increase availability energy and protein needed For growth cattle.

From the side health livestock, results observation show existence repair significant. Before activities, some cow looks thin and vulnerable attacked disease. After the program was running, the body weight of the cows increasing cases disease reduced, and conditions physique cattle seen more healthy. Changes This prove that combination between management good cage and provision optimal feed has an effect directly to the condition health cattle.

The pre-test results showed that part big breeders (60%) have low understanding about management farm cows. This is can understandable Because part big breeders previously only depend on experience hereditary without existence update knowledge based scientific. After following the training program, the post-test results showed significant increase: 60% of farmers is in the category high, 35% in the category moderate, and only 5% in the category low.

Improvement This reflect effectiveness method training participatory approach applied, namely through counseling, discussion groups, and practices direct approach This in accordance with theory adult learning according to Knowles (1980), who stated that adults more easy absorb knowledge if involved in a way active in the learning process, right? only accept in a way passive. With Thus, the success of the program is not only determined by the material provided, but also by the approach proper delivery.

Results of service This show that knowledge transfer from academics to public capable produce change real. College No only play a role as center development science, but also as facilitator in implementation technology appropriate in the field. This is in line with Sutrisno's opinion (2021) which confirms that involvement college tall in empowerment programs public speed up adoption technology and encourage change more behavior productive.

Integration between theory and practice are very important For ensure sustainability results devotion. For example, the theory management cages and nutrition feed delivered in session counseling direct practiced by farmers at the time assistance. With Thus, breeders No only understand draft in a way theoretical, but also capable implement it in activity daily.

Change visible positives from results observation and testing indicates existence potential improvement productivity cattle in the future. Management good cage will guard health livestock, so that level death can pressed. System giving more feed efficient will increase cow's body weight, which in the end impact on increasing mark sell. In addition, with increasing knowledge breeders, opportunities adoption other innovations in the field livestock farming is also increasing big.

With thus, it can concluded that activity devotion public This No only succeed increase skills technical, but also changing pattern think breeders For more open to innovation. Success This can used as a model in empowerment programs public farms in other areas.

## **Closing**

Activity devotion community implemented by the Ngudi Waluyo University Team in the Community Optimization program Management Farm Cow For Improvement Productivity give very positive results. Through series activity extension, training and mentoring, livestock breeders capable increase skills in manage cage, arrange more feed efficient, and guard health cattle in a way more good. Observation results show existence change real in condition cages and health cows, meanwhile results test show improvement knowledge breeders in a way significant after follow activity.

Involvement active breeders in every stages activity prove that approach participatory capable give greater impact big compared to method lecture One direction. Knowledge transfer

from team academics to public can walk effective Because combined with practice directly in the field . This is No only increase skills technical , but also changing pattern think breeders to be more open to innovation and implementation technology appropriate .

With thus can concluded that activity devotion This has succeed reach objective mainly , namely increase capacity breeders in optimize management farm cows . Improvement This expected capable push productivity livestock , increase income , as well as contribute to resilience food animal protein based at the level local and national . As action further , it is suggested that similar programs Keep going done in a way sustainable , good through monitoring and mentoring periodically , so that changes positive that has been achieved can maintained . In addition , it is necessary done development in aspects others , such as utilization waste farm become product worth add ( for example fertilizer organic ) , and strengthening institutional breeders through cooperative or group livestock . With support from government area , college high , and society , is expected sector people's farms can develop more advanced , modern, and empowered competitive .

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