



BUNDA ATIRAH PEASANT WOMEN'S GROUP BUSINESS DEVELOPMENT THROUGH CATFISH CULTIVATION

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ABSTRACT

Catfish cultivation can be carried out with a relatively small capital investment and low maintenance costs. Maintenance costs can be reduced by using natural feeds such as snails, tadpoles, and kitchen waste. However, the group of peasant women of Bunda Atirah does not have experts for catfish cultivation. The purpose of this service is to increase the knowledge and income of the Bunda Atirah farmer women's group. The way to do this is to raise catfish for several months with two catfish growth containers so that the result is that the percentage of feed used is the highest at the beginning of stocking seeds, which is 7% of body weight, while the lowest feed consumption at the end of the harvest will be 2% of body weight. Cultivation can already increase the income of Bunda Atirah members and is recommended for cultivation with larger quantities and using the biofloc system.

Keywords: Cultivation, Lele, peasant women's group

INTRODUCTION

The Peasant Women's Group is one of the groups that has strength and is the spearhead of agriculture at the family level. The development of farmer groups can be carried out through various training and counseling activities. This activity is expected to support the family's economy. The Bunda ATIRAH Peasant Women's Group is one of the KWT in the city of Padang. KWT is located at Bara Intel Complex RT 01 / RW 19 Nanggalo Padang Village. Some members of the Bunda Atirah farmer group are housewives with low education and are classified as economically weak. The activities that have been carried out by KWT aim to improve the skills of members who can increase family income. The activity that has been running is farming crops. The palawila harvest has been marketed to members and communities around the KWT site.

Although KWT has produced agricultural products in the form of cassava leaves, kale, spinach, etc., the results that can be obtained have not been able to significantly improve the family economy. For this reason, it is necessary to try other activities that can increase the income of the families of KWT members, one of the businesses planned to be carried out is the livestock business. Business development to the field of animal husbandry is planned is catfish cultivation. Catfish cultivation can be carried out with not so large capital and not high maintenance costs. Maintenance costs can be reduced by using natural feed such as conch, tadpoles, kitchen waste etc. However, KWT does not have experts who know the ins and outs of raising catfish.

For this reason, we from the Biology Education Study Program plan to carry out community service in the form of coaching in cultivating catfish. This is in accordance with the needs of KWT Bunda Atirah in developing business innovations towards fisheries. This activity was carried out for 4 months starting from the preparation of the media for 15 days using bacteria on EM 4 as a starter. Furthermore, the income of catfish seedlings obtained from breeders in the Kiambang area. Catfish enlargement lasts approximately 4 months.

The giving will be directed to natural food obtained around the KWT location and carried out every day by KWT members in turn. The harvest is estimated in June 2022. The purpose of implementing Community Service to KWT Bunda Atirah is to improve the skills of KWT members in catfish farming businesses so that they can be developed in their respective homes, and increase the income of their members.

Analysis of catfish and catfish ponds is recommended to use tarpaulin ponds and plastic drum pools because they are cheaper and the business capital is smaller when compared to concrete / wall ponds. Making an analysis of the catfish business is a way to find out the amount of capital that must be spent to start a catfish farming business. By compiling an analysis of the catfish business, you are better prepared to face various risks in the future. In addition, catfish cultivation analysis also makes it easier to calculate profits.

Calculation of Start-up Capital

One of the foundations of the catfish business is the initial capital. There are many ways to get capital, such as from bank credit, grants, and cooperative assistance funds. By using these funds, you can start a business quickly and smoothly.

The following are the assumptions of the catfish business.

1. Types of sangkuriang catfish size 5-7 cm.
2. Maintenance purpose for enlargement for 3 months to be sold to merchants
3. This business uses a box tarpaulin pool measuring 3 x 1 x 1 meter as many as 2 pieces; to separate large catfish and catfish seeds.
4. The number of seeds stocked is 1000 heads.
5. Target harvest of 1 quintal per 1000 heads.
6. Feed using pellets with 32-35% protein.

A. Investment Capital	
1. Pool 2 x Rp330.000	Rp660.000
2. Equipment	Rp75.000
3. Bamboo 10 lonjor x Rp15.000	Rp150.000
4. Nails 1 kg	Rp14.000
Total Investment Capital	Rp899.000
B. Working Capital	
Catfish seeds IDR 250 per head x 1000 heads	Rp250.000
C. Operating Capital	
1. Pellet feed 90 kg per period x Rp10,000 per kg	Rp900.000
2. Vitamins, Drugs	Rp50.000
3. EM4 1 bottle	Rp20.000
4. Cost of electricity and water	Rp20.000
5. Total Operating Capital	Rp990.000
6. Total Start-up Capital	Rp2.139.000

METHODS

Catfish farming business is carried out in 2 containers, each of which is filled with 100 fish fry, initially the cultivation media is prepared first and the container is filled with water and then allowed to stand for 15 days and after that it is carried out stocking the seedlings with an acclimatization process, namely stocking the seedlings with adaptation or leaving the seedlings in the container for 30 minutes and stocking, then the seedlings are

satisfied for 24 hours then after that they are given feed in the form of catfish feed pellets fermented with EM4 bacteria, Fish are fed daily with a portion of 3.5% of the body weight of the fish per day, every week several fish are weighed to find out the portion of the meal and to see the growth of the fish from week to week.

RESULTS AND DISCUSSION

Seed and Stocking Solid. One of the factors that determine the success of a fish farming business is the availability of quality fry and stocking density that matches the size of the cage. Catfish Fry (*Clarias* sp) obtained by enlargement farmers are from Sungai Pagar (Kampung Lele). The purchase price for Catfish fry (*Clarias* sp) is IDR 120 per head with a size of 5-7 cm. The size of 5-7 cm is chosen by farmers because to avoid the risk of death, because catfish fry tend to be cannibal, the mortality rate of Catfish is 20-30%. The cultivators carry out seed stocking in the morning (08.00-09.00) or in the afternoon (15.30-16.30) because it is estimated that at that time the water temperature is not too hot or relatively stable. The average farmer spreads seeds as much as 250-312 heads / m. Fish Feed and Feeding Time. The need for fish feed from each farmer starts from per day, per week and per month for four different periods depending on the number of fry stocked.

Table 1. Catfish Growth

No	Weight (Grams / Tail)	Length (Cm)	Feed Consumption / Day
1	3 – 4,5	3 – 5	7 %
2	4,5 – 7,5	5 – 7	6 %
3	7,5 – 12,5	7 – 9	5 %
4	12,5 – 16,5	9 – 11	4 %
5	16 – 25	12 – 15	4 %
6	25 – 66	15 – 20	3 %
7	66 – 100	20 – 25	3 – 2 %
8	100 – 120	25 – 30	2 %

The growth of catfish with a body weight range of 4.5 grams per head has a length of 3-5 cm with a feed consumption of 7% body weight or 0.2 grams per day as well as weight growth will increase along with increasing body length and feed consumption also increases according to the weight of catfish, and the highest percentage of feed consumption is at the beginning of growth at a body weight of 3-4.5 grams per head with a feed consumption of 7% body weight or 0.2 grams per day as well as weight growth will increase.

Feeding is carried out in the morning and afternoon Although catfish are nocturnal, but in maintenance ponds, especially intensive cultivation, catfish can be accustomed to being fed pelleted feed in the morning or afternoon even though their appetite remains higher if given at night. Catfish are relatively resistant to environmental conditions whose oxygen content is very limited can be seen by observing catfish cultivation containers that are quite

dense with non-clear water. In pond conditions with high stocking density and minimum oxygen content, catfish can still survive.

Catfish do not particularly need a large discharge of water, like goldfish or tawes. This is because catfish have additional breathing apparatus (maze) so that they can take oxygen freely from the air. The water source for the hatchery business must be clean and clear. Usually the water comes from well water either from a drilled well using a suction pump or an ordinary dug well. Water that does not meet the requirements in terms of water quality will adversely affect the survival of farmed fish catfish growth rate of 1.25% per day with feeding containing 45% protein and energy 3,000 Kcal / kilogram of feed can grow to 300 grams from an initial weight of \pm 30 grams within 2 months, from the results obtained in two fish weight farming ponds, which is about 90 grams per head multiplied by 200 heads with a harvest of 18 kg for 200 fry, and the following are the results of the catfish business analysis:

Selling Price of Catfish

The selling price of catfish in each region is not the same because it is influenced by regional economic factors and points of sale. For example, you sell catfish on baskets, the selling price is only around Rp. 16,000-18,000 per kilogram. On the other hand, if you sell to direct consumers, the selling price of catfish is higher, around Rp. 24,000 per kilogram.

Calculating Turnover and Profit

The count (per 1000 heads) of the turnover and profit of catfish business in the enlargement segment is calculated per harvest period. Assuming sales to catfish traders, here is the amount of turnover and profit you get according to the estimated initial capital in the first subtopic.

- The average selling price is IDR 24,000 per kilogram.
- Then the turnover, the yield of 1000 kg (1 quintal) x Rp24,000 is equal to Rp. 24,000,000
- One-period profit is calculated from the total turnover minus working capital and 3 months of operating capital. So, the advantages:

IDR 24,000,000 – IDR 2,139,000 = IDR 21,861,000 per 1000 kg/harvest period.

Catfish Business Risks

Like other business fields, the catfish-farming livestock business also has a number of risks. Here are some of the risks of catfish enlargement business that often occur.

1. At the beginning of maintenance, maybe many catfish die due to adaptation factors If the mortality rate does not exceed 5%, you are still biased towards making big profits. But if it is more than that, of course the losses are obtained.
2. The price of catfish in the market often experiences This month may be a high price, but next month cannot be predicted.
3. Catfish disease lurks all the time, especially in the rainy season—many catfish die from bloating.

CONCLUSION

It can be concluded that catfish farming can increase the livelihood of KWT Bunda Atirah members, and there are several things that need to be evaluated, such as the provision of pakah must be consistent and sorted every 20 days and feed should be adjusted to the percentage of fish body weight and find alternative feed that can increase post-harvest profits, and selling is recommended to prepare for biofloc system catfish cultivation.



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