

Prospect of Garut's Emping Lancar Rejeki Kadireso Village in Pajangan, Bantul

Danang Yudhiantoro, Endah Wahyurini, Rifki Indra Perwira,
Universitas Pembangunan Nasional Veteran Yogyakarta

Keywords: arrowroot, UKM Lancar Rejeki

Abstract: This PbM UKM Lancar Rejeki is located in the Kadireso, Triwidadi Pajangan Bantul with members of farmers who process arrowroot into chips. Problems in SMEs Current Fortune is the difficulty in choosing wet tubers as a basis for making chips, lack of attractive packaging and lack of marketing aspects. The specific objective to be achieved by this PbM activity is to help UKM Lancar Rejeki improve garut products and expand online marketing aspects so as to improve the welfare of the community. The methods used to achieve these objectives include interviews, training and monitoring. PbM activities include training and practice in selecting criteria for superior, old and healthy tuber arrowroot, procurement of packaging tools and marketing tools online, counseling and assistance in how to package a good and attractive packaging and training in making a website.

1 INTRODUCTION

One of the hamlets in the Pajangan sub-district is Kadireso, which has the potential in the cultivation and processing of arrowroot as local food. Garut (*Maranta arundinacea*) is a local food that is widely grown in the community's yard so that it is the potential to be developed in Kadireso village. The natural conditions of fertile, shaded lands and topographic aspects support the growth and development of arrowroot. Arrowroot besides as a source of carbohydrates as well as biopharmaca plants because of the low glycemic index content as a drug for people with diabetes. Intensive arrowroot cultivation in Kadireso village produces an average of 25 tons/ha with a wet tuber price of Rp 3500 / kg, which is very suitable for agribusiness development. In an effort to increase the added value of arrowroot plants, with a touch of simple technology, arrowroot is processed into arrowroot chips as an alternative to healthy food. But in the village of Kadireso, not many people have been working on arrowroot chips. Efforts to overcome problems in an effort to process the community arrowroot chips form a Small and Medium Enterprises (UKM).

Small and Medium Enterprises (UKM) Ljeki fortune, which was formed in 2014, consists of 25

people consisting of farmers/communities who work on processed arrowroot, especially chips production. The members of SME Ljeki Rejeki at home have their own garut emping business, and there are also arrowroot farmers. The main activity of UKM Current Fortune is to process the arrowroot tubers into flour and arrowroot chips, as a leading commodity to improve the population's economy. Another activity is a routine meeting held every Thursday, Kliwon, at the house of Pak Hamlet Supriyadi. Meetings are held every month in the form of social gathering activities, discussions discussing problems in processing and marketing arrowroot chips, sharing in crispy chips processing techniques, and counseling from the Agriculture service. Based on the description above, it can be seen that there are large market opportunities that need to be developed by empowering the community to process the arrowroot chips as a superior village. Thus, if the potential is well managed, it will provide benefits for Current Fortune Fortune SMEs, including the availability of jobs and the improvement of the community's economy.

In the process of making arrowroot chips, including tuber selection, stripping, washing, boiling, slicing, flaking, and drying in the sun. Production costs up to packaging reach Rp 3,000 per kg of raw tubers. While the selling price of arrowroot chips is

IDR 60,000 / kg, in the form of flour IDR 25,000 / kg. So far, raw tuber material is obtained from arrowroot plants that grow in the yard. Arrowroot crops harvest on average at the age of 8 months or at the beginning of the rainy season from September to October are generally major harvests. When the harvest of wet tuber availability is fulfilled, but when the crop fails due to rat attack or when the tuber is not yet harvested, farmers buy arrowroot tubers in other areas such as Purworejo, and Wonosobo. In the growth of arrowroot tubers experiencing a period of dormancy where the tuber resting phase does not grow and develop well. This will delay the harvest time. On the other hand, farmers have difficulty in choosing superior tubers, healthy, and high carbohydrate content. Therefore we need good technical knowledge on the cultivation and selection of arrowroot tubers.

Another problem in packaging arrowroot chips is still simple by weighing arrowroot chips every 1 kg in a plastic pack that is pressed and without labeling. Marketing of arrowroot chips is also still limited in the regions / local with low selling prices when compared to marketing outside the region or limited market access. On major holidays accept orders from outside the area. Therefore, in order to overcome the above problems through community service activities, training and assistance are carried out in an effort to improve the technique of cultivating garut widely, improving the arrowroot chips packaging to add selling value, and marketing online based on the website. The purpose of this community service activity is to improve the welfare of farmers/entrepreneurs arrowroot chips, increase arrowroot production, and online marketing.

2 LITERATURE REVIEW

The agricultural sector still focuses on increasing the production of food crops, especially local food. One of the local food plants that have potential and economic value is the arrowroot crop. Arrowroot (*Maranta arundinaceae*) is a local food source that has potential and needs to be conserved to support food security. Arrowroot crops are harvested in the form of tubers. Arrowroot tuber itself has white characteristics with a length reaching 10-30 cm, 2-5 cm in diameter with blankets covered in leaves with brownish scales. Plant height reaches 0.5-1.5 m with leafy stems and has branching wobbly.

Garut tuber yields ranged from 9-12 t / ha with starch content of 1.92-2.56 t / ha. Arrowroot plants are useful as starch, arrowroot chips, and pulp can be

used as animal feed. Arrowroot tubers are beneficial for health, as a source of food fiber and have a lower glycemic index than other tubers. Arrowroot starch can substitute the use of flour in various food products with a substitution rate of 50-100%.

Market demand for arrowroot chips is increasing, but the supply of arrowroot tubers is very limited. Therefore, it needs improvement and improvement in cultivation techniques. Propagation of arrowroot plants so far conventionally through saplings. Other obstacles encountered include the limited arrowroot seed because farmers generally use seedlings (stolons) as seeds. Propagation by tuber cuttings has limitations because it is difficult to determine the length of tuber dormancy and a slow-growing cycle (Jansen et al., 1996). Efforts to overcome the period of dormancy is the provision of growth regulators gibberellins. The use of ZPT gibberellic acid (GA3) has been applied in studies breaking tuber dormancy. Gibberellins are ZPT, which play a role in accelerating plant growth. This hormone is not only stimulating growth but also is a substance that functions to control plant growth, including flowering, stem lengthening, and breaking dormancy of seeds (Zeim, 2016).

Besides the improvement of arrowroot cultivation techniques, in an effort to increase tuber production in good, healthy, and high carbohydrate content, it is necessary to improve the packaging of arrowroot chips processed. Packaging or packaging becomes one of the important elements in a product. According to Kotler & Keller (2009), the packaging is the activity of designing and producing containers or packages as a product. The packaging function is 1) protective function and 2) promotional function. The protective function is intended as an effort to avoid various possibilities of product damage, either due to climate, transportation infrastructure, distribution, and others. The second function is promotional. Packaging that is good in color, size, and appearance will have a special attraction for buyers to buy the product. In addition to the two functions above, other functions of the packaging are 1) facilitate the distribution of products, so that they are not scattered, 2) as a product identity that compares products with one another, 3) adds to the attractiveness of prospective buyers (Simamora, 2010). Arrowroot chips served in clean, good, waterproof containers will certainly increase sales. Labeling functions as the identity of a product so that consumers can choose the product correctly and appropriately.

Through this UKM, Indonesian people are demanded to be more creative. Creative in creating products to market products. Marketing strategies that

need to be carried out to avoid the risk of loss are: branded names as attractive as possible, introducing processed local foods to the community, giving discounts at certain events, building networks with other businesses that can support, creating taste innovations, and improving service quality.

Online marketing strategies can be interpreted as a way to market a product or service where the sale is via the internet. From the survey results, SMEs who apply online marketing strategies earn 80% percent more than conventional actors. In addition, there is a potential 1.5 times greater to absorb labor. Through this online marketing, the reach becomes wider and unlimited. Consumers can find your product wherever they are as long as there is internet access. This online marketing provides more convenience for consumers, including the ease of choosing goods, payments, and customers do not need to go far to come to the store. The effective online marketing strategies for SMEs are Mandatory for you to have a virtual store, use Facebook as an advertising medium, blogging, or website content, run email marketing, use an advertising provider site.

3 ASSESSMENT METHOD

The implementation method used to overcome the problem is training and assistance in marketing and information technology plant cultivation techniques. This method is felt to be the most appropriate way to overcome the problems faced by Lancar Rejeki UKM in Kadireso village. Through the facilitation of plant cultivation techniques by giving GA3 to spur tubers enlargement, and marketing, strategic and technical aspects can be carried out. Assistance is also expected to ensure that improvement programs are implemented consistently. Lecturers assisted by students can more intensely help partners to get out of the main problems.

Solutions to problems faced by partners have also been discussed and agreed upon. PBM activity plans have also been agreed upon, which is a derivative of the solutions offered. Each solution must be accessed with activities so that each problem will receive treatment (Table 1).

Table 1. UKM Lancar Rejeki Problem and Solution

No.	Problem	Type of Problem	Solution
1.	The ability to choose arrowroot tubers as a basic ingredient in making chips. Tubers are still small, immature, and low in carbohydrate content, the limitations of wet tubers when market demand increases.	Plant cultivation techniques	Improvement of plant cultivation techniques by giving GA3 for tuber enlargement. Providing knowledge and insight in choosing healthy, superior, arrowroot tuber criteria with high carbohydrate content
2.	Do not have attractive packaging in the form of ordinary plastic that has not been labeled.	Product Packaging Marketing	Improvements in packaging arrowroot chips become attractive and make it easier for consumers to bring packaging tools.
3.	Limited access to marketing networks, still local, do not yet know marketing online based website	Website information	Providing marketing knowledge on line, providing marketing tools online

4 RESULTS AND DISCUSSION

The stages of PbM implementation, including the preparation, implementation, and evaluation stages, have been carried out consistently. The preparation phase is carried out through observation, policy

studies, and outreach. This stage results in a more concrete mapping of the problems faced by partners.

Implementation of this activity includes training in arrowroot cultivation by making arrowroot demonstration plots with the application of GA3 administration to break the tuber dormancy period

and tuber enlargement. It also planted tubers with 2 segments to be efficient. In one tuber consists of several segments, therefore we choose 2 segments with buds. The next stage of training in choosing healthy tubers, high carbohydrate content. Selection of the middle tubers for chips, while the tip as a seed to be planted again

In the field of packaging improvement, PbM activities are training and assistance in repairing plastic packaging, providing seller tools and designing and labeling so that they are more attractive to consumers



Other activities include improving marketing access online, namely providing Advance tabs as marketing infrastructure, and creating a website called Garut Processed E-commerce Promotion Website. Url: garutkadireso.com.



Figure 1. Training and online marketing assistance



Figure 2. Stages of making arrowroot chips. (a. seed selection)



Figure 3. Stages of making arrowroot chips. (b. Slicing and soaking tubers)



Figure 3. Stages of making arrowroot chips. (c. Drying chips)



Figure 4. Stages of making arrowroot chips. (c. Packaging and labeling)

Figure 2, 3 and 4 shows the stages in making arrowroot chips, including selecting tubers that are healthy, high in carbohydrate content. Furthermore, the tubers are cleaned scales and washed clean. The tubers are soaked in a bucket of water and salt. Then the tubers are thinly sliced and crushed so that they are wide, flat, and thin. Emping dried in the sun if the weather is cloudy can be dried in the room on the shelves. After it is very dry, arrowroot chips can be packaged in plastic labeled clips. The label information includes the name of the UKM, nutrition content, taste, and address.

5 CONCLUSIONS AND SUGGESTIONS

1. Increasing arrowroot production through improved arrowroot cultivation techniques produces large and superior tubers.
2. Increased innovation in arrowroot chips in the form of ordinary plastic bags on the press is labeled with the name of the UKM, contact person, content, and taste.
3. Garut marketing, which was originally through the local market and orders of several agencies, is now marketing online through a website called Garut Processed E-commerce Promotion Website. Url: garutkadireso.com.
4. Increasing the income and welfare of farmers in UKM Current Fortune
5. Efforts to assist will continue to ensure that the program continues to be carried out

ACKNOWLEDGMENTS

Thank you to LPPM UPN "Veterans" Yogyakarta for the 2019 Community Service Fund.

REFERENCES

- Jansen PCM, Van Der Wilk, C and Hettersched WLA, 1996.
- Amorpophallus Blume ex Decaisne. Record from Proseabase. Flach, M and Rumawas, F. PROSEA. Foundation. Bogor.
- Kotler and Keller. 2009. Marketing Management. Volume 1. 1st Edition Jakarta: Erlangga.
- Simamora, Bilson. 2010. Consumer Research and Behavior Guidelines.
- Zeim, A. 2016. Plant Growth Regulatory Substances (Fitohormone). Prenada Media Group.