



DIVERSIFICATION OF COCONUT FRUIT INTO A SUPERIOR PRODUCT IN SIDAMULIH VILLAGE, PANGANDARAN REGENCY, WEST JAVA PROVINCE

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Abstract

Coconuts in Sidamulih Village have great potential in marketing and producing coconuts not only in the form of fresh fruit but in processing production (diversification). The purpose in this community service is to increase production not only in the form of fresh coconuts but in the form of various processed food products. The method is implemented with the mentoring method. The results obtained gained knowledge about coconut processing in several products, namely: oil with the sour method, candied coconut, coconut water drinks and coconut water cococrystals. The existence of universities in carrying out community service activities has at least three things built, namely increased knowledge, increased skills and increased business motivation. MSME groups in the Sidamulih area have one of the potentials to foster an attitude of community independence towards a better economy. The specific target that also wants to be achieved is to provide science / technology about Coconut Diversification into products of economic value to the community, especially in MSME groups, especially those in the Sidamulih Village area, Pangandaran Regency.

Keywords: Assistance, Coconut, Product Processing, Superior Products.

INTRODUCTION

Coconut is widely cultivated in Indonesia. Many farmers sell coconuts in fresh form. Problems will arise in the event of a bumper harvest. Coconuts are abundant at very low prices. So far, coconuts are only sold fresh or in the form of copra and kletic oil. This will harm farmers, therefore it is necessary to diversify coconut processing into other preparations and can be enjoyed with quality products. In addition, coconut processing will facilitate packaging and increase the selling value of processed coconut products compared to being sold in fresh form, so it is expected to increase the income and welfare of farmers.

The content of other chemicals that stand out is in the form of enzymes that are able to break down toxic properties. The composition of chemical substances found in coconut water includes ascorbic acid or vitamin C, protein, fat, charcoal hydrate, calcium or potassium. Minerals contained in coconut water are iron, phosphorus and sugar consisting of glucose, fructose and sucrose. The water content found in coconuts is 95.5 grams for every 100 grams (Indonesian Food Composition Table, 2018)

The problem is that people must be more able to use coconut for economic commodities. The lack of community action response is one of the problems that hinder. Community knowledge about coconut diversification is still very minimal, this still needs to be improved, so that it becomes a joint movement to increase the economic value of the community. Seriousness in processing coconuts into economic commodities, then what can be done by utilizing coconuts into various products, including cletic oil, candied coconut, cocrystal coconut water and coconut water freshener drinks.

Besides being used as raw material for processing on coconut water, it is also used as raw material for vinegar acid, nata de coco, and coconut pulp can be used as srundeng flour.

The PPM program in 2022-2023 which is currently implemented is more directed towards community service and in collaboration with village officials and especially MSMEs in Sidamulih Village, Sidamulih District, Pangandaran Regency.

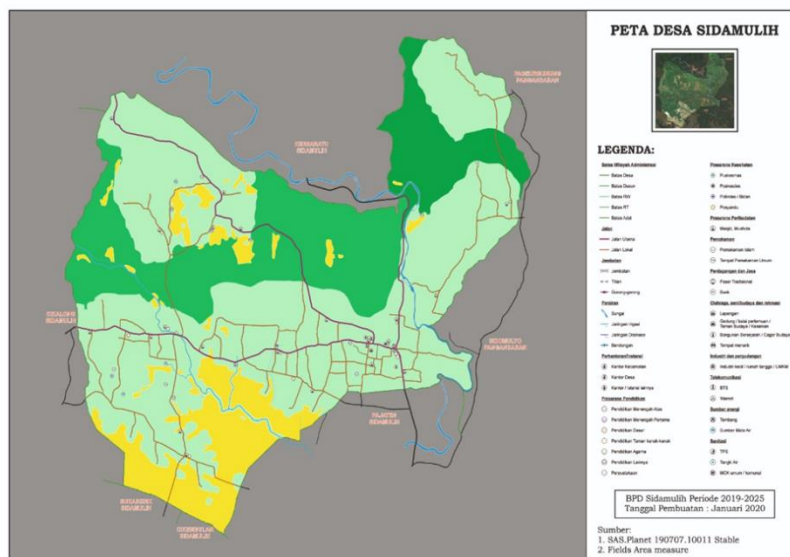


Figure 1. Map of Sidamulih Village, Sidamulih District, Pangandaran Regency

One of the ways to improve the economy of the community in Sidamulih village has the potential to be developed between agriculture, plantations and tourism which has not been managed optimally also with the existence of PKM from FT UNPAS which previously there was no guidance for community small business groups, hopefully it can improve the economy of the local community.

IMPLEMENTATION METHOD

Berisi gabungan antara rencana/laporan pelaksanaan penelitian atau PkM dan prosedur yang digunakan menjadi satu bagian naratif. Pelaksanaan yang sudah dilakukan harus menunjukkan dengan referensi dan dengan teknik pelaksanaan yang sesuai.

The partner's problem arose when the service team from the Faculty of Engineering Unpas formulated the results of the situation analysis to the Wibe site of Sidamulih Village. Partners have not started their efforts in a better direction in accordance with their expectations, by itself the hope to improve welfare sustainably in the community is hampered,

in other words developing an attitude of community independence there are several obstacles that they must improve continuously. Problems that are used as obstacles for partners include the following:

1. Limited knowledge of partners in terms of the correct coconut processing process
2. The limited knowledge of partners in terms of diversifying coconuts has not been owned in detail, so it needs to get more serious coaching from the service team of the Faculty of Engineering Unpas.
3. Limited knowledge of partners in terms of designing the interior, packaging, and use of equipment:
 - a. Packaging does not exist yet. This happens because the MSME group has never appealed to processed coconuts that are marketed, just for family consumption. So there is no packaging yet.
 - b. Good Food Processing Methods (GMP) includes processing/producing coconuts. This means that partners are not standardized on the Good Manufacturing Practice (GMP) method.
 - c. Application of Hazard Analytical Critical Control Point (HACCP) system. This means that partners have limitations in the application of management of the food industry, for example, the composition of coconuts, so that the type of processed coconut produced has a monotonous (boring) shape, taste, and type, so that the products produced have not dared to be marketed
 - d. Ignorance of partners in marketing their products, because the entrepreneur group markets their products only in limited / specific / certain places, and can be increased in target to the middle class and above.

This community service activity will be carried out in March-April 2023 in the MSME group of Sidamulih Village, Sidomulih District, Pangandaran Regency. The tools and materials used are tools used for the processing of acidic kalapa oil, candied coconut, coconut water drinks and coconut water cococrystals.

Stages and Methods of Implementation

The method of solving problems faced by MSMEs is carried out using comparative and socialization methods, followed by training on the process of processing coconut diversification and mentoring, monitoring, and evaluation. Details of the implementation of activities are:

1. Identify potential in Sidamulih Village by conducting field surveys.
2. Data collection of MSME groups to be used as participants during the training
3. The training is in the form of theory on how to process well, select raw materials and choose packaging that is in accordance with the processed products along with how to label the packager and carried out praktyek directly with MSME groups in the form of processing coconut oil acidically, candied coconut, coconut water drinks and coconut water cococrystal. Some documentation during training can be seen in figure 2
4. The results of theoretical training can be continued in practice in the field continuously. Providing mentoring, professional coaching, and soft-skill development at a basic level

for MSME groups.

5. Monitoring and evaluation is carried out since the activity ends with monitoring. The implementation of the training and question and answer were held after the training took place and also continued with monitoring in the form of problems in the field by telephone and WA.

RESULTS AND DISCUSSION



Figure 2. Documentation of Coconut Diversification Training Activities

Results of Socialization Activities with MSME Groups

Socialization activities and licensing processes for partner MSMEs in the implementation of community service activities are carried out by informing the government about the objectives and activity plans. The results of the discussion showed that the Sidamulih Village Government was happy and appreciated this activity and hoped so.

This activity can be seen by the local government so that it becomes the starting point in the development of competitive new entrepreneurs who become diversified coconut products to be superior. This is because it is known that Sidamulih village is one of the coconut fruit producing villages which has only been sold in fresh form. With the implementation of this

activity, it is hoped that the emergence of new entrepreneurs who are superior and mandiri into the Mandiri MSME group can become a group of assisted MSMEs that are independent, advanced and understand technology. After carrying out the licensing process through the head of the MSME group (p.Saeli) with the village government and, the next step is socialization as a form of program introduction with the MSME group, namely conveying the aims and objectives of the implementation of this activity and socialization is intended so that the partner group can adjust its time to be able to follow the practice of diversifying coconuts together according to the implementation schedule.

Coconut Diversification Training Process

The activity method used in community service is the mentoring method. Mentoring and empowering is part of the Participation Action Research (PAR) method. There are several important elements that need to be considered in service activities with the PAR method. That is according to Mahmudah et al in (Bakhri and Futiah, 2020), among others: (1) Raising awareness in society, understanding, realizing that there is a value system in society. (2). After knowing information as well as understanding problems with the community through small group discussions and finding solutions together carefully (3). The PAR method consists of three interrelated words, namely Participation, research and action. This means that the results of research that have been carried out in a participatory manner are then implemented into an action. Action based on true participatory research will be right on target. For training activities on processing food innovations from raw materials of Coconut Fruit with the PAR method, the approach methods used are:

Tabel 1. Method of Approach

Problem	Problems	Solution	Methods
Management Resources Local nature (coconut)	Limited knowledge and community innovation in processing coconuts	Providing training on processing coconut into innovative and creative preparations	Training and Assistance in processing coconuts

The benefits obtained (outcomes) from this activity are:

There are opportunities for coconut development with coconut diversification processing programs. So far, most partners do not know the advantages of coconuts which have only been sold as fresh fruit even though coconuts are quite important to support food security for families and surrounding communities. Because in coconuts according to some researchers prove that coconut protein has a fairly good quality, when compared to the quality of protein from other vegetable sources. Research results prove, that coconut protein has a relatively good amino acid arrangement and high nutritional value (Lanchance and Molina, 1974). This is also supported by the opinion of Banzon and Velason (1982) which states that coconut protein does not have antinutritional compounds like those found in other vegetable proteins, especially in nuts and has a low Glycemic Index value good for high dietary fiber. Coconut diversification is one of the business opportunities that is quite profitable and in demand by the people of Indonesia. According to Tambunan (2012) the need for continuous training in accordance with business needs or business development.

The most important part of coconut fruit is the flesh of the fruit. Coconut flesh if processed can produce copra, coconut oil, coconut cream, coconut milk, desiccated coconut, and virgin oil. Coconut water is natural water that is sterile and contains high levels of potassium, chlorine, and chlorine. In addition, coconut water also contains protein, fat, minerals, carbohydrates and various vitamins (C and B complex) which are very good for health and beauty. In the food industry, coconut water is used as a raw material in the manufacture of soy sauce and nata de coco. While in a fresh state, young coconut water is a refreshing drink

Diversification of coconut processing will increase partner income because Soekartawi (in Hasan 2002: 19) stated that the importance of processing agricultural products because several considerations include increasing added value which leads to increasing producer income in this case coconut farmers. Furthermore, he also revealed that various studies show that the processing of agricultural products carried out by producers (farmers) well can provide added value to farmers' income, especially in managing their farms.

Table 2. Benefits obtained (Outcome)

No.	Outcome	Before Training	After Training
1.	Skills	Processing bananas as they are, such as only making cletic oil and discarding coconut water	Can be creative in processing coconuts like what has been given during training, namely coconuts can be made into processed kletic oil in a sour way, candied coconuts, coconut water drinks and coconut water powder drinks
2.	Knowledge	Very limited knowledge in coconut processing and packaging processed coconut products	1. Better understand and know other formulations in coconut processing and packaging. 2. Better understand how to process food properly and correctly
3.	Insight	Unable to create and innovate	More innovation and creation in coconut processing.

The next activity is training in the field of utilization of grant funds from FT UNPAS in May 2023 with stakeholders of PKK mother groups, SMEs and Sidomulih village officials who are the focus of developing coconut diversification, attended by village officials, SMEs, Ex. PKK mothers there are several things conveyed with the following points with the formulation of the results are:

Development Constraints

The coconut processing program that will be managed by partners in Sidamulih Village allocates funds funded from FT UNPAS in May 2023 accompanied by the provision of equipment to process sour method cletic oil, candied coconut, coconut water drinks and coconut water cocrystal, each product is given a set of equipment in order to motivate partners in processing coconut-based products. The allocation of FT Grant funds for the development of Coconut Diversification needs to be considered again so that this activity is even better

Development Opportunities

Many partners are experienced in managing raw materials other than coconuts so that it is easier to direct them in coconut diversification and also The PKK women's mobilization group is one of the important elements in the village to build community empowerment that has not dared to become new entrepreneurs.

Weaknesses in development

The availability of managers and persons responsible for coconut development efforts in particular is still a weakness in Sidamulih village in terms of competence, supervision and implementation of future production activities, because it requires professionalism in the production of coconut processing for the benefit of the economy in Sidamulih village. The group of PKK mothers who have a lot of activity with various programs in the village, then made the appointment of professional human resources managing coconut processing, with the provision of salaries or regular wages in their production. The weakness in business development is that there is still a lack of public interest in businesses that are more new entrepreneurs, which still require capital, equipment investment, production operational costs and worker salaries

CONCLUSION

Partners who are less productive and do not know how to process coconuts into products that have more economic value, through this activity are taught 4 types of processed coconuts that can be sold with higher economic value and also how to package the products produced during practice. This activity is expected to ignite the enthusiasm and creativity of partners in Sidamulih village to be able to become more productive partners by processing coconuts that are very abundant in Sidamulih village into a food product of high economic value.

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