

## Utilization of Bananas into Processed Products in the Kusuma Dewi Group, Asahduren Village, Jembrana Regency

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### ABSTRACT

A Banana is a fruit that can bear fruit regardless of the season. Bananas can grow in upland and lowland areas. Bananas are mostly produced in Asahduren Village, a village located in Pekutatan District, which is 75 km from the provincial capital of Bali. This very abundant banana fruit causes the community to be overwhelmed, so many are wasted after being used for traditional ceremonies. Therefore, community service is carried out with counseling methods, training, and product manufacturing practices. The community was given knowledge about processing bananas into banana chips snacks, processed banana jam, banana flour, banana sale, banana brownies and banana cakes, packaging, storage, marketing, entrepreneurship, and business management. With the skill of processing bananas into processed products, the group's income can increase.

## **INTRODUCTION**

Asahduren Village is a village located in Pekutatan District, which is 75 km from the Capital City of Bali Province. The main livelihood of the people of Asahduren Village is farming. The population in Asahduren village consists of 892 households, consisting of 1882 men and 1830 women. Asahduren Village is divided into 4 hamlets, namely Prestasi Hamlet, Asahduren Hamlet, Temukus Hamlet, and Segah Hamlet. The area of Asahduren Village is 6,641.85 M2. Dusun Segah, which is located in the village of Asahduren, is directly adjacent to the State Forest and plantations (Perusda) (Anon, 2005). As one of the hamlets directly adjacent to the state forest, the main livelihood of the community is from the agricultural sector and also the animal husbandry sector. In Tempek Tri Karya Utama, Dusun Segah, there are groups of women farmers, one of which is the Women Farmers Group, Kusuma Dewi. Its location next to a state forest makes this group far from the crowds, and is still somewhat behind in terms of skills. The activities carried out by the group's mothers dance practice, the practice of making ceremonial materials, jimpitan, and others. Due to its remote location and side-by-side with State forests, this group still really needs support so that the empowerment of women can foster an entrepreneurial spirit and requires assistance so that members have supporting activities that can help increase income.

The main product of the farming community in Banjar Segah, besides cloves and cocoa, is bananas. The community lives from the results of the banana plant either by selling the fruit and leaves. This abundant yield of bananas causes people to get tired of seeing bananas and are tired of consuming them, so they often throw bananas away after being used for ceremonies because no one eats them. From this situation, they ask us to help provide training or input on how to process bananas into durable food that has high nutritional value, is easy to process, and has a longer shelf life. The mothers also emphasized that the tools used in processing them should be enough to use the tools they generally have. The Kusuma Dewi Farmers Group hopes that the training provided will use raw materials that are easily available and do not require difficult equipment. This ability will later be widely used or practiced to meet the needs of families. besides, there is also a desire to have the ability to have their own business (entrepreneurship) where of course, these snacks will be very much in demand when there is a yadnya event (upakara). This desire is supported by the proximity of the market, which is located in Pekutatan District. So they ask to be given the knowledge that they only use makeshift materials. Community involvement in training on processing local food products needs to be carried out, increasing public awareness is important for local Indonesian food products to have a high potential value in building food sovereignty and self-sufficiency. Food products developed through local food empowerment will have a good level of conformity with consumer preferences and have the potential to become a superior or regional/local characteristic (Hardini et al., 2022).

Banana is a potential local fruit that has not been utilized optimally. Many banana producers still complain about the low selling price. This is due to the lack of public knowledge about the diversification of food products made from bananas which can be an alternative to increasing the quality and selling price of bananas (Qurniati *et al.*, 2020). Banana fruit is a fruit that does not know the season, always there every time, especially in Bali, which is very closely related to religious activities, where bananas are one of the fruits that are always used in making ceremonies. This causes the existence of bananas very abundant and easy to obtain. Banana is a tropical fruit that grows a lot in Southeast Asia, including Indonesia and Malaysia. This one fruit is quite popular because it tastes very sweet when compared to other bananas. It's not only the sweet taste that makes plantains popular. The high content of Vitamin C and Vitamin A makes this fruit a prima donna. Vitamin C and Vitamin A contained in this fruit are excellent antioxidants for reducing the effects of free radicals and preventing cancer. Bananas contain (68%) water, (25%) sugar, (2%) protein, (1%) fat and oil, and (1%) cellulose fiber. As well as it contains starch and tannic acid, vitamin A (300 IU per hundred grams), various B vitamins, B1, B2, B6, and B12 (100 mg per hundred grams), a sufficient percentage of Vitamin D, and a small amount of Vitamin Z. And bananas also contain Calcium (100 mg per hundred grams), Phosphorus, Iron, Sodium, Potassium (potassium), magnesium, and zinc. Banana fruit is a fruit that does not know the season, always there every time, especially in Bali, which is very closely related to religious activities, where bananas are one of the fruits that are always used in making ceremonies. This causes the existence of bananas very abundant and easy to obtain. Apart from the fruit, the banana plant has several other parts that can be utilized.

Bananas are a fruit commodity that deteriorates quickly, so an alternative is needed to deal with excessive products. Unripe bananas are usually used as ingredients for making banana chips (Rawi *et al.*, 2020). Meanwhile, ripe plantains are usually consumed directly, but some connoisseurs of this fruit sometimes process them into boiled bananas, fried bananas, and banana lunkhead. However, not many people know about the processing of bananas into banana flour, which can be used as raw material for further food and snack processing. Therefore the group requests Warmadewa University to hold training and assistance in processing processed banana products in the hope of increasing the knowledge of group members so that the initial goal, in addition to meeting the needs of the family, can also be used as a side business.

## IMPLEMENTATION AND METHODS

The method for implementing Community Service activities in the planned Kusuma Dewi Group is to use:

1. Interview and discussion methods to find out the problems experienced by partners.
2. Face-to-face methods and providing training so that partners gain knowledge about Good Food Processing Practices (GMP) and Hygiene Sanitation (SSOP) for processing banana chip products, processed banana jam, banana flour, banana sale, banana brownies, banana cakes, packaging, storage, marketing, entrepreneurship, and business management (Sari *et al.*, 2021).
3. Hands-on practice, which is guided by instructors who are competent in their fields so that partners can apply the technology provided and can handle problems in handling product processing and business management.

Plans and Procedures for community service activities to be carried out are:

1. Location survey for the implementation of extension activities and processing.
2. Interviews and questions and answers regarding problems faced by partners, as well as planning activities that show steps for solutions to problems faced.
3. Partners will be given materials prepared by the team in the form of banana flour product modules, given counseling and modules regarding supporting materials, sanitation and hygiene for processing banana chips, processed banana jam, banana flour, banana sale, banana brownies, and banana cake, packaging, storage, marketing, entrepreneurship, and business management
4. Delivery of equipment and repair of business premises to partners to support the processing and preservation of banana processing products.
5. Implementation of Good Food Processing Practices (GMP) and Hygiene Sanitation (SSOP) for processing and preserving banana chip products, packaging, storage, marketing, entrepreneurship, and business management.

Partner Participation

- a. Partners are expected to comply with all agreements that have been made
- b. Partners are expected to be disciplined and carry out all series of activities until all planned activities end.
- c. After the community service activities ended, the partners were able to continue their business well, and the businesses that were initiated could develop.

Solutions made to solve problems faced by partners by partner problems are:

- a. Providing Appropriate Technology in the processing of banana chip products and banana jam (Gunawan and Salim, 2018).
- b. Providing knowledge about good processing methods (GMP), processing sanitation and hygiene (SSOP), packaging and storage, marketing, entrepreneurship, and business management.
- c. Provide bookkeeping knowledge in a well-organized manner
- d. Assist with processing equipment for banana chips and banana jam products

## RESULTS AND DISCUSSION

Banana processing can be done in various ways, such as drying, frying, steaming, and fermenting. Here are some reasons why processing bananas can increase their use value:

1. Increases shelf life: Fresh bananas have a limited shelf life, but with processing, they last longer and can be sold in more distant markets.
2. Increase the availability of nutrients: Some of the nutrients in bananas, such as vitamins and minerals, can be more easily absorbed by the body after going through processing.
3. Improve the taste: Banana processing can provide a better and different taste than fresh bananas, such as fried bananas or kepok bananas.
4. Increasing economic value: Processed bananas have a higher economic value than fresh bananas, thereby increasing the income of farmers and producers.

Thus, banana processing can increase its use value and provide greater benefits for consumers, producers, and the environment. Local potential-based economic development can be carried out by increasing the selling value of local products so that, ultimately, it can increase people's income. Local potential-based economic development strengthens support for poverty alleviation and job creation. A stronger economic order in rural areas will certainly be a solution to various social problems, such as high rates of urbanization, poverty rates and low levels of public education (Pratiwi et al., 2022).

Banana processing has many advantages in terms of economy, health, and the environment (Huda and Yusuf, 2018). Here are some of the advantages of processing bananas:

1. Increasing economic value: Processed bananas have a higher economic value than fresh bananas, thereby increasing the income of farmers and producers. (Mahmuda and Rizal, 2023).
2. Improves shelf life: Fresh bananas have a limited shelf life, but with processing, they last longer and can be sold in more distant markets.
3. Increase the availability of nutrients: Some of the nutrients in bananas, such as vitamins and minerals, can be more easily absorbed by the body after going through processing.
4. Improve the taste: Banana processing can provide a better and different taste than fresh bananas, such as fried bananas or kepok bananas.
5. Increase culinary creativity: Banana processing can inspire chefs and culinary enthusiasts to create various types of unique and delicious food and drinks.
6. Reducing organic waste: Bananas that are not suitable for consumption or are too ripe can be processed into compost to increase soil fertility and reduce organic waste.
7. Improves health: Banana processing can produce healthier products, such as banana flour which is low in gluten and high in fiber, or bananas that are preserved without chemical preservatives.

This activity involved 26 members of the Kusuma Dewi group. The first thing to do is counsel about the nutritional value of bananas and how to preserve them so that the bananas are not wasted. Another thing that is emphasized is that processing can increase the selling value of bananas (Sunandar *et al.*, 2017). Furthermore, a demonstration of the loading of several types of banana products was carried out, ranging from raw bananas to banana chips, processed banana jam, banana flour, banana sale, banana brownies, and banana cake.



Figure 1. Activity Implementation

The process of producing banana chips is also quite easy for ordinary people. Along with expanding market share and increasing consumer demand, banana chip snacks now have interesting taste innovations (Wardani and Sutopo, 2021). Concrete actions that can be taken are to increase the knowledge and skills of partner groups through business management and creating new products in the form of chocolate banana chips and product packaging so that products can last a long time and remain hygienic (Ramlawati and Serang, 2019). For sale banana products, the important characteristics that greatly determine the quality of sale bananas are color, taste, smell, elasticity, and shelf life. These properties are much influenced by the way of processing, packaging, and storage of the product. Sale made during this time is often of poor quality, especially when made during the rainy season. If it is made during the rainy season, it needs to be dried with an artificial dryer (with a furnace system). (Drug and Food Control Agency, 2017).



**Figure 2. Processed Banana Products**

From the activities carried out, it can be seen that the training participants were very enthusiastic about utilizing bananas. So far, bananas, which are rejected from sales in an unripe state, are usually thrown away or used as animal feed. Now they have begun to be used as chips and also banana flour. At the same time, ripe bananas are bananas that have been used as ceremonial ingredients, used as jam, and banana sale. Mothers and mothers have also been creative in making and even selling banana cakes and banana brownies. Usually, on the day approaching the Galungan holiday, banana dodol is also made. Banana processing is carried out, and of course, it will be able to increase the selling value of the processed banana (Trisnasari, 2009). In this activity, the inhibiting factors were the many religious activities carried out in Asahduren Village and the busy schedule of activities on campus which made it difficult to find the right time to carry out these activities. After going through many discussions, finally, this activity can be carried out smoothly. The distance is quite far, and the path to the location is congested, making the team have to be more prepared in terms of departure time.

The supporting factors in this activity were the extraordinary enthusiasm of the training participants and their cohesiveness in carrying out the activity helped us in carrying out an activity. Bananas are the most closely related fruit in the lives of the participants, so their curiosity is very high. The ingredients are easy to get, and there is no need to buy because all the households there are banana producers. At the time of selling the harvest, the buyer will usually sort it so that the bottom part of a bunch of bananas with the smallest fruit will be removed and will automatically become consumption bananas. So the materials for training there are abundant (Mubarok *et al.*, 2015). This training activity will continue to be accompanied until the community can produce processed bananas as a marketable commodity. Until now, processed bananas have been sold in the form of banana chips, banana cakes, banana sale, banana molen, aroma bananas, and fried bananas. As a follow-up effort, assistance in product development will continue to be provided as long as the community needs it (Cahyana *et al.*, 2019). The mentoring process is sought to be carried out either in person or through virtual communication. This is supported considering that the development of communication technology, one of which is through social media, provides an alternative for individuals to develop communication spaces, especially group communication. Forming a mentoring group through social media such as WhatsApp is very helpful and simplifies (very effective and efficient) in supporting the mentoring process because virtual (online) communication media allows assisted members to interact and share content with companions and fellow mentoring members or communities quickly without limits. time and place (Ekayani *et al.*, 2021).

The strategic steps to realize the next plan are to continue to assist the group, especially in terms of marketing. This activity aims not only to increase the selling value of bananas but also to take advantage of the excess bananas that are not consumed, and it is also hoped that it will increase farmers' income. Assistance will also be carried out regarding product packaging and labeling so that it can increase product shelf life and attract buyers (Fau, 2021).

## CONCLUSIONS AND RECOMMENDATIONS

Community service activities carried out have been running well and smoothly. Processed banana products that can be produced by the group are banana chips, processed banana jam, banana flour, banana sale, banana brownies, and banana cake. The community's response was very good so that when practicing the training materials, everything could be understood. Assistance will continue to be carried out, especially in the field of marketing and entrepreneurship.

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