Vol 6 No 3, September 2022
ABDI DOSEN
Jurnal Pengabdian Pada Masyarakat
pISSN: 2614-6509
eISSN: 2620-5156

TRAINING IN MAKING BISCUIT BASED CHOOSE AS A HEALTHY FOOD SUPPLEMENT TO PREVENT NUTRITIONAL NUTRITION DURING THE COVID-19 PANDEMIC

Jamaludin M. Sakung [1], Sri Hastuti Virgianti Pulukadang [2], Sitti Rahmawati [3], Dewi Satria Ahmar [4]
Universitas Tadulako, Palu
[1] jamal_utd@yahoo.com, [2] pulukadangsrihastutivirgianti@gmail.com,
[3] sittirahmawati@yahoo.com, [4] dewisatriaahmar@gmail.com

Abstract

When the chayote harvest is abundant, the farmer group partners are unable to process all the chayote due to limited production capacity. Partners have tried to make flour products but failed. Therefore, the priority carried out by the proposer with partners is in the flour processing process and continued with the manufacture of biscuits. At the time of abundant harvest, chayote cannot be stored so technology is needed to process chayote that can be stored in the form of healthy food to increase nutritional needs. To increase the utilization of the abundance of chayote, one of them can be done in the process of making flour and processed products. The problem faced by partners is the lack of information obtained by farmer groups about the manufacture of flour and processed chayote which has nutritional value and can be used as a substitute for wheat flour for food products in the form of biscuits. Solutions to solving the problem are carried out through training or workshops and guidance on the manufacture of chayote-based flour and biscuits. Making flour from chayote and processed healthy food based on chayote flour (biscuits) can improve health and prevent malnutrition during the Covid-19 pandemic for the people of the Gumbasa sub-district, especially mothers.

Keywords: Biscuits, Covid-19. Nutrition, Chayote, Flour.

INTRODUCTION

The “Idaman Jaya” farmer group, Pandere Village, Gumbasa District, Sigi Regency is one of the producers of sideline farming such as chayote, alabio sweet potato, corn, long beans, yam, water cucumber, and others. Chayote farming is a side business that is quite large and produced in Pandere Village. Meanwhile, other sideline farming such as alabio sweet potato, corn, long beans, yam, water cucumber, etc. are only a few and are only cultivated for consumption.

The chayote plant developed by the “Idaman Jaya” farmer group is very wide and has abundant production according to the following picture of the land and the chayote harvest.

http://pkm.uika-bogor.ac.id/index.php/ABDIDOS/issue/archive
Submitted: August-2022 Received: September-2022 Available online: September-2022

Figure 1. The yield of Chayote Pumpkin

Siamese pumpkin is easy to get and the price is relatively cheap so it can be an option for meeting needs. Many people like chayote because it tastes good and is cold (Dianto, Anam, & Khumaidi, 2015; Julianto, 2016; Mustafa et al., 2016). Based on the results of the chayote plant in Central Sulawesi in 2015, the production of 3,518.90 tons increased in 2016 to 3,998.30 tons, the highest production in Sigi Regency was 1,872.30 tons or 47% of the production in Central Sulawesi (Anwar, 2016; Arsyad, 2016). 2016).

The chayote farmer group that is a partner in this activity has a chayote field that is cultivated as a family. Such a large potential is still not optimal in lifting the economy of the community, especially the community of the farmer group. The increase in area and production has not been followed by an increase in the income of farmer groups. This is because the pumpkins are harvested and sold young so the price is cheap, namely Rp. 3,000, - up to Rp. 5.000,- per piece.

Pandere village, gumbasa sub-district, Sigi district is a producer of chayote in abundance. The abundance of chayote production in the area has caused the selling price to often fall and once touched the price of Rp. 1000/kg. The “Idaman Jaya” farmer group only sells their harvests fresh, there is no post-harvest management such as processing into new products to increase the selling value of chayote. When prices fall and contractors do not come to buy farmers' crops, then chayote will usually be used for own consumption or as animal feed.

The “Idaman Jaya” farmer group in Pandere village is a group of partners who are economically/socially productive because there has not been a solution to overcome the overproduction of chayote. Potential waste from the existing chayote in the form of fruit waste. This waste is very abundant in number and most of it is left to rot. The decomposition of this waste causes an unpleasant odor and for a long time will reduce the quality of the environment. The productivity of farmer groups in helping the family economy is low, partly because of the lack of information about the use of technology and its benefits for economic improvement. Lack of activities aimed at increasing economic independence as a result of a lack of understanding in utilizing food ingredients in innovative products.

To help the community take advantage of this abundant waste potential, the community service program is directed to assist the community in the form of pumpkin-based biscuit-making techniques to increase nutritional needs during the COVID-19 pandemic from chayote waste raw materials. The results of Sakung J's research (2020) showed a fairly high

level of potassium in biscuits, one of the processed products based on chayote. Potassium is a mineral that plays a role in lowering blood pressure. The technology for making chayote-based biscuits is expected as an alternative solution to utilize existing waste, can reduce environmental pollution, and improve health services (Sakung, 2020).

The problems faced by partners are not knowing about the diversification of various processed chayote-based products that can provide added value to the product, increase shelf life and increase the selling price, during the covid-19 pandemic affects the production of chayote which is difficult to market, and less the availability of healthy foods that contain high nutrients, resulting in a decrease in the body's nutritional needs during the covid-19 pandemic.

The solution to the problem is to provide counseling on the importance of handling nutritional needs during the pandemic through the production of chayote-based biscuits, conduct training on technology for processing chayote waste to become biscuits as a nutritional value food to increase nutritional needs and provide guidance and assistance to target groups in waste management. chayote fruit into processed food products and their utilization.

IMPLEMENTATION METHOD

The method of activities carried out to solve the problems faced by activity partners are as follows:

a. Counseling on the importance of chayote commodities, and the benefits and results obtained from the sale of these products.
b. Counseling on the importance of diversification (diversification) of processed chayote products into biscuits made from chayote flour, to increase product added value, product shelf life and increase community income of chayote farmer groups.
c. Demonstration on how to process chayote into biscuits made from chayote flour.
d. Training and guidance in the process of making these chayote processed products as well as marketing management training.
e. Evaluate all activities. Evaluation is carried out during training and monitoring by the Community Service Team.

The evaluation criteria used are:

a. The willingness of the people of the chayote farmer group to accept innovations is to see whether or not the community of the chayote farmer group is enthusiastic about participating in this activity.
b. Whether there is a will or not of the people of the chayote farmer group to continue to diversify the chayote processed products into biscuits.

Evaluation is also carried out by filling out a questionnaire to the training participants which contains a list of questions regarding the response to activities and the level of difficulty for practical/training activities.

The implementation of the service program is planned to last for 1 month in the Gumbasa sub-district, precisely in Pandere village. In its implementation, the methods used are counseling, training, and demonstrations. The steps needed to overcome the problems

faced by farmer group partners are:

1. Socialization of the Service Program

Socialization activities will be carried out in each community meeting room/Village Hall. The socialization is carried out to convey the aims, objectives and goals of service activities and make an initial agreement for the follow-up plan to be carried out. Socialization activities are carried out for farmer group partners and other community members, community leaders/leaders as well as implementing officers from related agencies.

2. Training

The training was conducted on partners of the "Idaman Jaya" farmer group with community members. The training activities include:

a. Good Manufacturing Practice (GMP) training is a guide for business actors in producing chayote-based biscuits.
b. Product Packaging Training is an important factor to consider. In addition to affecting the shelf life of the product, packaging will also affect consumer acceptance. Good and attractive packaging will increase the purchasing power of consumers so that the product will be easier to market. Therefore, training on how to package products properly and correctly needs to be carried out.

RESULTS AND DISCUSSION

Community service through the manufacture of healthy food supplements begins with the socialization of the activity plan with the Pandere village government, Sigi district. This socialization aims to provide information related to the implementation of service so that participants know the purpose of implementing the program by the implementing team so that there is no misinformation. Furthermore, after the delivery of the program plan as a whole, it was continued with the provision of training related to the theme of making healthy food based on chayote to improve the health and welfare of the people of Pandere village, Gumbasa district, Sigi district, namely chayote-based biscuits.

The training was held in the Pandere Village hall (Figure 2), the participants of the training were PKK women in Pandere Village. The training materials include: Good Manufacturing Practice (GMP) training on how to produce good chayote biscuits is a guide for business actors in producing their products, Product Packaging Training, which is how to pack chayote products well, and the practice of making chayote-based biscuits. chayote.

Figure 2. Percentage of Making Siamese Pumpkin-Based Biscuits

Source: Community Service documentation

The practice of making chayote biscuits begins with the preparation of ingredients and the manufacture of chayote flour followed by the manufacture of chayote biscuits accompanied by a team of service implementers and field workers (Figure 3). The activities carried out in the practical work were that the participants were guided and assisted, starting from preparing chayote and making biscuits, ovens, and others, chayote in the oven to dry, then in a blender to get flour. the next step is processed into biscuits with nutritional value.

Figure 3. The Practice of Making Chayote-Based Biscuits
Source: Community Service documentation

The processed product of chayote biscuits is classified as healthy food because the nutritional content of chayote flour is obtained from the highest to the lowest levels, namely the levels of carbohydrates, fats, proteins, water, and ash, has been calculated with the average value of each analysis, namely carbohydrates (57.66 g). /100g), fat (19.39 g/100g), protein (16.99 g/100g), water (6.68 g/100g) and ash (5.28 g/100g). The nutritional composition of chayote and its products is influenced by climate, region, growing conditions, plant age, and processing methods (J. M. Sakung, 2020).

Research conducted by Sakung J (2021) showed that the results of the proximate analysis of chayote and mung bean flour formulations obtained the lowest and highest moisture content of 2.118% and 5.298% for F5 and F3, respectively. The formulation (50:50) of chayote and green beans had an increase in water content due to the high protein content in the biscuits. The highest ash content was obtained at 2.87% from F1 (100% biscuit from chayote flour) and the lowest was obtained at 1.42% from F5 (100% biscuit from mung bean flour). The highest carbohydrate content was obtained by 59.88% from F5 and the lowest was obtained by 53.68% from F2. The highest fat content was 32.64% in F1 and the lowest was 24.33% in F5. The highest protein content was 12.25% from F5 and the lowest was 5.65% from F1.

CONCLUSION

Making chayote-based biscuits can improve health and fulfill nutritional needs during the Covid-19 pandemic for the people of the Gumbasa sub-district, Sigi Regency, especially the PKK women in Pandere village. Service activities increase community knowledge and skills, by mobilizing potential resources in the form of chayote owned by the community to increase income and community welfare based on technological innovation and local wisdom.

REFERENCES

Anwar, Faizal. (2016). Provinsi Sulawesi Tengah dalam Angka 2016. Palu: BPS provinsi Sulawesi Tengah.

Arsyad, Ansyayari. (2016). Profil Dinas Kesehatan Propinsi Sulawesi Tengah (tidak dipublikasikan). Palu: Dinkes Sulteng.

Dianto, Ian, Anam, Syariful, & Khumaidi, Akhmad. (2015). Studi Etnofarmasi Tumbuhan Berkhasiat Obat Pada Suku Kaili Ledo Di Kabupaten Sigi, Provinsi Sulawesi Tengah. Jurnal Farmasi Galenika (Galenika Journal of Pharmacy), 1(2), 21-27.

Julianto, Fitra. (2016). Pembinaan kelompoktani melalui pengolahan labu siam (sechium edule sw.) Di kecamatan caringin kabupaten sukabumi provinsi jawa barat. Jurnal Penyuluhan Pertanian, 5(1), 62-66.

Mustafa, Sodah Bint, Mehmood, Zahid, Akhter, Naheed, Kauser, Abida, Hussain, Iqbal, Rashid, Abid, . . . Riaz, Muhammad. (2016). Medicinal plants and management of Diabetes Mellitus: A review. Pak. J. Pharm. Sci, 29(5), 1885-1891.

Sakung, Jamaluddin M. (2020). Proximate, mineral and vitamins in chayote flour. International Journal of Research in Pharmaceutical Sciences, 11(2), 2261-2264.

Sakung, Jamaludin M, Nuryanti, Siti, Afadil, Pulukadang, Srihastuti. (2020). Evaluasi Komposisi Proksimat Dan Mineral Biskuit Formulasi Tepung Labu Siam (Sechium Edule) Dan Kacang Hijau (Vigna Radiata). Fakultas Keguruan dan Ilmu Pendidikan Universitas Tadulako, Palu.