Improving the Life Skills of Aisyiyah Members in Mergangsan District through Ginger Candy Training

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Abstract. Ginger is one of the spices that is widely known by the public. Apart from producing flavor in various food products, ginger is known to be rich in properties and easy to cultivate. Efforts to increase the ability of the post-COVID-19 community to increase income by utilizing the yard for planting ginger and other spices have not been maximized due to a lack of public knowledge about processing plant products. Branches in the Mergangsan PCA environment have a great opportunity to contribute to improving the life skills of Aisyiyah branch mothers to process ginger from their yards into products of economic value. The results of the activity showed that there was an increase in the knowledge and insight of women members of Aisyiyah in the Mergangsan District regarding the processing of plant products. The high level of participation and seriousness of Aisyiyah mothers, or 92%, helped to increase the knowledge of Aisyiyah women's members by 96%. Candy products made by trainees have aromas, tastes, and textures that are as expected. Based on monitoring results, as many as 70% of participants after attending the training had tried processing ginger into candy. This indicates that training has high effectiveness and can become an embryo for productive household-scale businesses.

Keywords: Ginger, Ginger Candy, Life Skill, Aisyiyah Mergangsan

1 Introduction

Ginger is a plant that has a variety of uses, including as a spice, essential oil producer, fragrance, and medicine. Ginger contains phenolic compounds, which cause ginger to be known to have a high antioxidant content (Rineksane et al., 2020). During the COVID-19 pandemic, the government sought family health resilience, one of which was by planting ginger in the yard. However, these efforts after COVID-19 need to be increased not only in the framework of family health resilience but also in improving the post-COVID-19 economy.

The Aisyiyah Branch Manager (PCA) Mergangsan is one of the 14 PCAs in the Yogyakarta City Aisyiyah Regional Leadership, which oversees 17 branches. PCA Mergangsan as a women's movement has a great opportunity and a big contribution to helping improve the community's economy. One effort that can be made is by processing plant products by utilizing existing natural resources (Barus, 2014). The existence of ginger in people's yards has been widely cultivated, but it is still used as a fresh ingredient for cooking spices or health drinks. Based on interviews with PCA Aisyiyah, the community still does not know about the processing of plant products. Mothers planting ginger in their yards are still limited to fresh preparations for cooking spices or family medicinal plants.

The solution offered to overcome partner problems is to conduct training on making ginger candy and packaging candy products. This community service activity is expected to

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increase the knowledge of Aisyiyah mothers in the Mergangsan District about processing ginger products. This effort is also expected to be able to initiate productive activities by utilizing crops in the yard to become creative economic activities for Aisyiyah's mothers in the Mergangsan District environment.

## 2 Methodology

The community service was carried out in March 2023 with partners from the Aisyiyah Mergangsan Branch Manager. Service activities consist of several stages, namely: FGD, counseling, training, and monitoring and evaluation. FGD activities are carried out to determine the right solution for partners to overcome partner problems. The results obtained were the variety of plants in the yards of women belonging to Aisyiyah in the Mergangsan District, the time of implementation, and the planned place of implementation. Extension activities regarding the importance of processing plant products to improve life skills. Following lectures and discussions, there is hands-on practice in the training. The ginger candy processing training activities were carried out in two stages, namely, making solid ginger candy and making soft ginger candy. Materials needed include emprit ginger, elephant ginger, granulated sugar, sucrose, HFS, glutinous rice flour, gelatin, lime, and butter. The equipment needed is: digital scales, stove, frying pan, spatula, blender, oil paper, baking sheet, and mini jars for packing. The process of making ginger candy is based on modifications from Ngatirah et al. (2020) and Aji et al. (2021). Monitoring and evaluation (Monev) is carried out to oversee the success and sustainability of the program. Monitoring activities carried out are related to the implementation of independent practices for making ginger candy. et al. (2021). Monitoring and evaluation (Monev) is carried out to oversee the success and sustainability of the program. Monitoring activities carried out are related to the implementation of independent practices for making ginger candy.

## 3 Results and Discussion

### Counseling on the Importance of Processing Plant Products to Increase Life Skills

Life skills are things that are needed so that a person can survive and develop properly. Life skills with an approach based on the needs of the wider community are suitable solutions to provide or improve skills that can be used as a source of income (Rizal et al. 2018). Various skills or abilities are needed in social life. The application of science and technology to the community, especially housewives, is considered appropriate by teaching skills that are appropriate to their natural resources. Efforts to develop urban agriculture in Mergangsan District have been intensified since 2019. Agriculture is carried out by utilizing narrow land to grow vegetables and family medicinal plants that can be used to meet food needs independently and improve environmental conditions in order to create a healthy and quality environment (Sumbodo et al., 2022). Initial observations show that 91% of mothers use their yards to grow a variety of plants, which supports this. Types of plants planted in the yard of the house, namely, as much as 30% of mothers planted empon-empon plants such as ginger, turmeric, and kencur; 33% planted vegetables in pots or polybags such as spinach, chilies, tomatoes, basil, and leeks; and 34% of mothers planted ornamental plants in the form of flowers. The findings of observations, which show that 91% of mothers use their yards to grow various plants, support this. Types of plants planted in the yard of the house, namely, as much as 30% of mothers planted empon-empon plaas such as ginger, turmeric, and kencur;
33% planted vegetables in pots or polybags such as spinach, chilies, tomatoes, basil, and leeks; and 34% of mothers planted ornamental plants in the form of flowers. Initial observations show that 91% of mothers use their yards to grow a variety of plants, which supports this. Types of plants planted in the yard of the house, namely, as much as 30% of mothers planted empon-empon plants such as ginger, turmeric, and kencur; 33% planted vegetables in pots or polybags such as spinach, chilies, tomatoes, basil, and leeks; and 34% of mothers planted ornamental plants in the form of flowers.

![Image](image1.jpg)

Figure 1. The resource person delivers counseling regarding the importance of processing plant products to improve the life skills of housewives.

![Image](image2.jpg)

Figure 2. Results of the Analysis of the Utilization of Aisyiyah Members' Yards: (a) Utilizing Yards for Agriculture; (b) Types of Plants in Their Yards; (c) Knowledge of Processing Plant Products.

Ginger can be used as a cooking spice, a traditional medicinal ingredient, or made into a drink. The use of ginger in food processing provides certain functional benefits. The content of phytochemical compounds contained in ginger in general makes ginger a food ingredient that can increase immunity or endurance (Saputro et al., 2020). Besides that, ginger contains many antioxidant compounds that can capture free radicals in the body, so it has the potential to be made into a health food. To simplify and increase economic value, ginger can be made in the form of instant powder, candy, and syrup (Nurlita et al., 2021; Pratama et al., 2021). This is not widely known by the members of Aisyiyah Mergangsan. The observation results showed that 91% of mothers still did not know how to process ginger into candy products. In general, mothers use empon as a spice in cooking or preparations for herbs or family medicinal plants. Preparations that are usually made by mothers are still limited to herbal drinks, such as ginger ale made with fresh ginger.
Ginger Candy Making Training

Ginger candy is one of the different forms of processed ginger. Participants were very interested in the process of making ginger candy. In this activity, there are two materials for the process of making ginger candy, namely solid candy and soft candy. Participants in the candy-making activity received an explanation of the crucial factors to take into account when making ginger candy, and the resource persons walked them through the necessary steps. Prior to the training, only 4% of mothers knew how to process ginger candy. After the training, there was an increase in knowledge of 96% because the participants had already tried making ginger candy.

The process of making ginger candy consists of peeling the ginger rhizome, washing the ginger rhizome, grinding the pieces of ginger rhizome with a blender, filtering the blended results, heating the ginger extract with additional ingredients, molding the candy, and packaging. In this activity on the process of making solid candy, the important ingredients used are ginger, granulated sugar, and tapioca flour. In the manufacture of soft candy, the important ingredients used are ginger, sucrose, HFS, gelatin, and glutinous rice flour. Gelatin is one of the ingredients that modify the texture to produce a chewy product (Ridawati et al., 2021). Gelatin was chosen with the consideration that it is easier to obtain and cheaper. Besides that, the use of gelatin can inhibit the crystallization of sugar and change the liquid into an elastic solid.

<table>
<thead>
<tr>
<th>No</th>
<th>Material</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ginger Extract (250 grams/130 mL of water)</td>
<td>380</td>
</tr>
<tr>
<td>2.</td>
<td>Granulated Sugar (g)</td>
<td>380</td>
</tr>
<tr>
<td>3.</td>
<td>Glutinous flour (g)</td>
<td>200</td>
</tr>
<tr>
<td>4.</td>
<td>Butter (g)</td>
<td>50</td>
</tr>
<tr>
<td>5.</td>
<td>Lime Water (ml)</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2. Soft Ginger Candy Formula

<table>
<thead>
<tr>
<th>No</th>
<th>Material</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ginger Extract (250 grams/130 mL of water)</td>
<td>380</td>
</tr>
<tr>
<td>2.</td>
<td>Sucrose (g)</td>
<td>370</td>
</tr>
<tr>
<td>3.</td>
<td>HFS(g)</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>Gelatin (g)</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>Lime Water (ml)</td>
<td>5</td>
</tr>
</tbody>
</table>

In the manufacture of soft candy, heating sucrose causes the sugar to decompose into glucose and fructose, which will then undergo a sugar crystallization process. Sugar crystals will form with further heating or drying processes so that the outside of the candy will harden.

Overall, of the 25 participants who were invited to take part in the activity, 23 attended. Thus, the attendance of the participants is 92%, so it can be categorized as high participation and seriousness by the participants. The women participating in the training were very enthusiastic about participating in this training because almost 100% of the participants stated that they did not know about processing ginger into candy and that this was the first time they had attended the training. 70% of participants will try to process ginger into candy. This indicates that the training has high effectiveness.
Figure 3. Mothers practicing making ginger candy. And Figure 4. The process of printing candy

Packaging Design Design and Packaging Training

The training continued with packaging design activities and packaging training. The selection of packaging is an important step that must be carried out because this can affect the quality of the product. Therefore, it is necessary to conduct training in selecting packaging and how to pack properly and correctly so that product quality is maintained and product appearance improves.

Figure 5. Participants are packing candy into packages. And Figure 6. Ginger candy packaging label

In this activity, candy packaging is directed at 100-gram jar packaging to minimize plastic waste. Product appearance can be improved with the correct labeling process so that the product can compete with similar products and increase the selling value. The front label design is made using images of ginger root, the brand, and the type of product. The right and left sides contain several things related to product information, namely composition, production date and expiration date, product weight, and manufacturer. The things listed on the product label are in accordance with government regulation number 69 of 1999 concerning food labels and advertisements, which states that food labels must at least contain the name of the product, a list of ingredients used, net weight, name and address of the producer, and an expiration date (Rahmawati, 2013). In this activity, the participating mothers were given knowledge about the importance of packaging and packaging labels. Packaging equipped with labels can increase the economic value of the product. Each participant took the outcomes of the practice home after all the finished products were ready.

4 Conclusions

Community service activities have increased the knowledge of Mergangsan PCA members regarding the processing of plant products into products of economic value and
product packaging. The high participation and seriousness of mothers in participating in training is a strength and capital in post-training implementation. The ginger candy product made by the women participating in the training was organoleptic in accordance with the criteria for ginger candy: ginger aroma, ginger spiciness, and sweetness. Groups of women belonging to the Aisyiyah branch in the Mergangsan sub-district actively share information about processing ginger into ginger candy, and 70% of them practice independently as embryos of household-scale productive businesses.

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2. Head of the Aisyiyah Branch, Mergangsan Branch, Yogyakarta City.

References


