

Training through the Utilization of Ginger into Syrup Products for the Community in Padukuhan Wirik, Gunungkidul Regency

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Abstract — Ginger is one of the natural products in Padukuhan Wirik, Umbulrejo Village, Ponjong District, Gunungkidul Regency, which is widely grown in family medicinal plants. This training activity aims to provide new ideas for the community to do business and build MSMEs. In addition, this activity is also intended to increase the utilization of ginger into a more value-added and marketable product, namely ginger syrup. The method used was explaining the material, making ginger syrup, and discussing the question and answer. The audience of this activity was 35 PKK women in Wirik hamlet. This training activity succeeded in increasing the knowledge and skills of PKK women in processing ginger into syrup. The results of empowerment found that participants actively asked questions and practised the process of making ginger syrup. In line with the program, the PKK women of Wirik hamlet are interested in implementing the business idea of utilizing ginger in ginger syrup products to improve the family economy.

Abstrak— Jahe merupakan salah satu hasil alam di Padukuhan Wirik, Desa Umbulrejo, Kecamatan Ponjong, Kabupaten Gunungkidul, yang banyak di tanam di tanaman obat keluarga. Kegiatan pengabdian masyarakat in bertujuan untuk memberikan ide baru bagi masyarakat untuk berbisnis dan membangun UMKM. Selain itu kegiatan ini juga dimaksudkan untuk meningkatkan pemanfaatan jahe menjadi produk yang lebih bernilai tambah dan bernilai jual yaitu menjadi produk sirup jahe. Metode yang dilakukan adalah dengan menjelaskan materi, pembuatan sirup jahe, serta diskusi tanya jawab. Audiens dari kegiatan ini adalah 35 orang ibu-ibu PKK di Padukuhan Wirik. Kegiatan pengabdian masyarakat ini berhasil meningkatkan pengetahuan dan keterampilan ibu-ibu PKK dalam mengolah jahe menjadi sirup. Hasil pemberdayaan mendapatkan bahwa peserta aktif bertanya dan mempraktekkan proses pembuatan sirup jahe. Sejalan dengan program yang dilakukan, ibu-ibu PKK Padukuhan Wirik berminat untuk menerapkan ide usaha pemanfaatan jahe menjadi produk sirup jahe untuk meningkatkan perekonomian keluarga.

Keywords—syrup, ginger, empowerment, training, pricing, costing

I. INTRODUCTION

Padukuhan Wirik is one of the hamlets in Umbulrejo Village, Ponjong Sub-district, Gunungkidul Regency, Yogyakarta Special Region Province, located in the highland area where the land is mostly limestone. Most of the people of Padukuhan Wirik work as farmers. In addition, Wirik Padukuhan also has a Women Farmers Group. The Kelompok Wanita Tani (KWT) or the Women Farmers Group is an organization that houses women farmers with an agenda of guidance and productive activities to utilize the results of

agricultural commodities produced in the village where KWT is located [1]. Activities often carried out by KWT associations are live pharmacy farming or planting family medicinal plants, one of which is ginger. However, it is unfortunate that these activities have not been carried out optimally, especially to improve the family economy, because they are only consumed personally.



Figure 1. Women Farmers Group Planting Ginger

Zingiber officinale or ginger is a rhizome plant that is well-known as a spice and traditional medicine for various diseases [2]. Since thousands of years ago, the ginger plant has been used as a seasoning ingredient and herbal and traditional medicinal ingredient in the Asian region [3]. Ginger contains various pure substances that are beneficial to the health of the body, such as calories, carbohydrates, fibre, protein, fat, and sugar. Ginger also contains many vitamins and minerals that are productive for the body, such as iron, magnesium, potassium, zinc, vitamins B6 and 36, vitamin C, phosphorus, and vitamins B2 and B3 [2]. The most important ingredient in the ginger plant is Zingibeol which functions as an anti-inflammatory. These active substances are efficacious in preventing and treating various mild to severe diseases such as aches, dizziness, headaches, coughs, colds, nausea, motion sickness, rheumatism, impotence, cancer, Alzheimer's, and heart disease [4]. Ginger is often used in the preparation of traditional herbal medicines that are highly nutritious and work as a treatment for headaches, dry coughs, perspiration, flatulence, and stimulates intestinal movements [5]. In addition, ginger plants contain gingerol, which is anti-inflammatory and a strong antioxidant. [6].

In Indonesia, 3 (three) types of ginger are often found, namely large white ginger (*Zingiber officinale* var *officinatum*) or often called rhino ginger, small white ginger (*Zingiber officinale* var *amarum*) or import ginger, and red ginger (*Zingiber officinale* var *rubrum*) which are used both for

seasoning, drinks, and herbal medicine [7]. Ginger can be utilized and processed into various beverage products, namely wedang uwuh, wedang ronde, bandrek, and sekiteng.

One product that is easily made from this ginger plant is ginger syrup. Processing ginger into syrup also adds added value and higher selling value so that it can be a business opportunity and benefit for the community to start a business or MSME (Ministry of Micro, Small, and Medium Enterprises).

II. METHODOLOGY

The implementation of the activity consisted of the utilization and demonstration of ginger syrup production and the socialization of pricing and cost. Before the implementation, the preparation of tools and materials, as well as materials, was carried out first. The preparation was carried out by coordinating with the head of the RT in Wirik Padukuhan to invite all PKK women in Wirik Padukuhan to participate. The activity was held on Wednesday, January 4, 2023, with 35 PKK members of Wirik Padukuhan participating. This training activity was held at Wirik Padukuhan Hall at 13.00 WB. In addition, this activity was also attended by several women cadres in Umbulrejo Village.

A. Preparation of Ginger Syrup Making

The implementation of the activity began by starting the process of making ginger syrup. At this stage, the necessary tools and materials were presented, as well as the process of processing ginger into syrup products. The main ingredient to make ginger syrup is white ginger. White ginger is larger than red ginger but smaller than elephant ginger. The shape tends to be flat with a yellowish white color, besides that the fiber is relatively soft and the smell is rather sharp. This type of ginger is often used as an ingredient to make beverages, spices, as well as food flavoring and kitchen spices [8]. The ingredients needed were 3 kilograms of small white ginger, 3 kilograms of brown sugar, 1 ½ kilograms of granulated sugar, and 1 small package of vanilla.



Figure 2. White Ginger



Figure 3. Brown Sugar



Figure 4. Sugar



Figure 5. Vanili Sachet

In addition, the tools needed are a blender, basin, knife, cutting board, clean cloth, wok, stove, spatula, and tablespoon.



Figure 6. Blender for Grinding Ginger



Figure 7. Basin for Collecting Ginger Juice



Figure 8. Cutting Board for Ginger Chopping



Figure 9. Knife for Chopping Ginger



Figure 10. Clean Cloth for Squeezing Blended Ginger Juice



Figure 11. Wok for Cooking Ginger Juice Into Syrup



Gambar 12. Stove for Cooking Ginger



Figure 13. Spatula for Stirring Ginger Juice

To make ginger juice, first, brush the ginger skin and remove the decayed or damaged parts. Based on Kustanto and Isnaini's research, it is stated that the essential oil content in ginger will be wasted more on peeled ginger than brushed ginger, because most of the essential oil components are contained under the ginger skin [9]. Then, wash the ginger rhizome thoroughly until all impurities are removed. Next, cut or chop the ginger into small pieces.



Figure 14. Ginger Cut into Small Pieces for Easy Pureeing

The ginger that has been cut into pieces is then mashed using a blender, by adding a little water to make it easier to smooth.



Figure 15. Ginger Cut into Small Pieces for Easy Pureeing

The smooth ginger is then collected into a container, and the juice is squeezed out using a clean cloth. This process is done as much as possible, until the juice in the ginger water slowly disappears or changes color to become a little clearer. Hartoyo stated that to obtain optimal ginger juice, it would be better if the

filtering is done repeatedly [10]. The juice produced with 3 kg of ginger is approximately 7.5 liters.



Figure 16. Ginger juice that is ready to be processed Into Syrup

B. Ginger Syrup Processing

The next phase is to process the ginger juice into ginger syrup. The juice from the ginger juice is then put into a large pan to cook. Then, sugar and brown sugar are also added and stirred together with the ginger juice. The ginger juice, brown sugar and granulated sugar are cooked together until the sugar dissolves along with the ginger juice. During the cooking process, the ginger juice and sugar solution must be stirred continuously. The stirring process was carried out for up to 1 hour from the time the sugar dissolved with the ginger juice. This phase continues until the ginger juice thickens and reduces to approximately $\frac{3}{4}$ of its original amount. Once thickened, the ginger syrup is finished and ready to serve, so the cooking process can be stopped. The ginger syrup in the pan should be cooled first, before being put into storage containers or packaging. Ginger syrup can last approximately 2 weeks at room temperature and 1 month in the refrigerator.



Figure 16. Some of the PKK Women Processing Ginger into Syrup

III. RESULT AND DISCUSSION

Training activities are an effort to share knowledge and technology with the community, so as to empower the community. This training activity starts from coordinating with the head of Padukuhan Wirik regarding the plan to organize activities. Then, on January 3, 2023, invitations were handed over to PKK women to become participants in the activity. The next day the activity was carried out, precisely on January 4, 2023. During the implementation of the activity, all participants played an active role in the process of making ginger syrup and

participated in the entire activity. In addition, the atmosphere was also cheerful and fun.



Figure 17. The Demonstration of How to Make Ginger Syrup

During the activity, participants often asked questions related to the process of processing ginger into syrup such as; "does the amount of sugar have to be in accordance with the recipe?", "how long can this ginger syrup product last?", "how long is the process of cooking ginger juice until it becomes syrup?", "why does the cooking process have to be one hour?", and other questions that showed the great enthusiasm of PKK women in Wirik Padukuhan when participating in the activity. In addition, some PKK members also took turns trying to stir the ginger juice that was being cooked in the pan. The participants' interest in participating in this activity shows that this training activity is interesting, informative, and right on target.



Figure 18. Active Training Participants Practicing the Ginger Syrup Processing Process

IV. CONCLUSION

The training activity of processing ginger into syrup products received a positive response, as seen from the participants' enthusiasm to understand the manufacturing process while practising making syrup from ginger, as well as questions asked during the implementation of the activity. This activity has increased the knowledge and skills of PKK women in Padukuhan Wirik hamlet in utilizing ginger plants to be processed into syrup. Processing ginger into syrup provides added value and selling value of ginger. The existence of this training activity is expected to become a household business idea to improve the family economy.


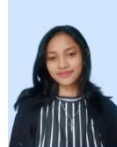


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