

RED GINGER INSTANT POWDER PROCESSING

Rahmaniza *, Epu Margi Astuti, Fatma Nadia

Institut Kesehatan dan Teknologi Al Insyirah
Jl. Parit Indah no.38 Kota Pekanbaru, Riau, Indonesia
Email: rahmaniza@ikta.ac.id

Abstract

Red ginger (*Zingiber officinale* var. *rubrum*) is widely known as a traditional medicinal plant with various health benefits, including anti-inflammatory, antimicrobial, and antioxidants. However, its use in the community has not been optimal, especially in the form of instant powder products that are more practical and have high economic value. This community service activity aims to empower women in RT 03 RW 01 Kubang Jaya Village, Siak Hulu, Kampar through training in the processing of red ginger instant powder. The implementation method includes socialization, demonstration, and direct practice, ranging from raw material preparation, extraction, cooking, sieving, to packaging and labeling. The results of the activity showed the high enthusiasm of the participants and the ability to produce instant ginger powder independently. This product is not only beneficial for health, but also has the potential to be developed as a household business to increase family income. This activity concluded that community empowerment through herbal processing training is effective in increasing knowledge, skills, and creativity while encouraging the use of local natural resources.

Keywords: Red Ginger, Instant Powder, Community Empowerment, Processing

INTRODUCTION

Plants are one of the largest sources of nature that are used as traditional medicines and are the object of research in the search for new medicines. The use of plants for traditional medicine has its own advantages, namely low toxicity, easy to obtain, cheap and less cause side effects. This advantage has also been empirically proven in direct use by traditional humans. This is one of the motivations to look back at the potential of nature to try to overcome various diseases or health problems that often appear, including in the prevention process. Indonesia is one of the countries with the largest source of biodiversity in the world. This very potential and large natural wealth should be empowered and utilized as well as research on traditional medicine to provide scientific evidence about the efficacy of a medicinal plant. The advancement of science and technology in the field of pharmaceutical science has led to the development and innovation of new drug discoveries derived from traditional medicine starting to develop rapidly.

Public awareness of the importance of health has also increased, but along with this various types of diseases have also developed due to changes in a more modern lifestyle with higher levels of stress. The emergence of resistance to various types of bacteria or parasites

results in the need for the development and discovery of new drugs. The environmental conditions with a tropical climate also allow various types of diseases to grow and develop. One of the plants used for traditional medicine is red ginger.

Red ginger, which is a member of the Zingiberaceae family, is a plant that grows easily in open places such as gardens and yards. This plant can also grow in solid, dry or loose soil (Heinrich and Subroto, 2000). There are three types of ginger that have been cultivated in Indonesia, namely: Elephant Ginger (*Zingiber officinale* var. *Officinale*), Ginger Emprit (*Zingiber officinale* var. *Rubrum*) and Red Ginger (*Zingiber officinale* var. *officinale*) (wijayakusuma, 2006). The other benefits and uses of red ginger empirically include carminine, anti-vomiting, seizure reliever, anti-hardening of blood vessels, sweat loss, anti-inflammatory, anti-microbial and parasitic, anti-pyretic, anti-rheumatic, and stimulating the production of gastric and bile sap (Harmono and Andoko, 2005).

IMPLEMENTATION METHOD

The implementation method begins with the socialization of the program by collecting data assisted by partners to determine participants who will take part in the training and then carry out training activities on the processing of red ginger products. The raw materials needed to make instant red ginger are: fresh red ginger, sugar, and water. The ratio of ginger and granulated sugar is 1:2. Tools used: knives and cutting boards, cloth strainers, blenders/graters, stoves and pots, stirrer, basins, glasses, scales, labels and packaging.

Production process guide:

1. Prepare raw materials

The ginger used is old and fresh ginger, ginger is sorted and washed to separate the rhizomes from dirt in the form of soil, and other plant residues. Washing is done with water, and draining then the ginger is peeled and sliced to facilitate the crushing process in a blender when grated using a knife and cutting board.

2.Extraction (squeeze)

Ginger is grated or blended until soft by mixing water, adding water to make the extraction process easier. Ginger is filtered and squeezed to separate the ginger pulp and its juice using a cloth strainer. The juiced liquid is deposited for 10 minutes to separate the starch from the ginger water so that during cooking there is no clumping due to gelatinization of the starch and clogging during instant ginger brewing

3. Cooking

Ginger water is put into the pot, during cooking, stirring is carried out continuously until the solution changes in texture to a thick brownish color, when there is no longer a solution, the fire is reduced and the stirring is carried out until then crystals are formed. However, stirring is done so that the ingredients are perfectly mixed.

4. Styling

After cooling, the Crystal powder is lifted from the pan and filtered and sifted so that the fine and coarse powder is separated, the parts that pass through the filtering are packed and do not escape the filter will be blended and filtered again.

5.Packaging and labeling

Instant ginger powder that has been filtered is packaged using plastic, labeling aims to

provide information about instant ginger products

RESULTS AND DISCUSSION

The implementation of community service was carried out after obtaining permission from RT 03. The stage of the team crew making an agreement with Mr. Rt to carry out service activities, the result of the agreement, namely the service schedule was carried out on Monday, June 16, 2025 with the target group of women in RT 03 RW 01 Kubang Jaya Village, Siak Hulu Kampar District. Before the activity, the team prepared all service needs, including preparing red ginger and cooking utensils, banners, ordering snacks, community service equipment such as infocus, community service materials, division of tasks in community service, arrangement of community service events and so on. The activities carried out on a predetermined schedule can be described as follows: explaining the purpose and purpose of the team's arrival and continuing to provide education in the processing of red ginger instant powder by demonstrating the processing of red ginger instant powder. Its production process range:

1. Preparation of raw materials (Ginger preparation)

Demonstrate the shape of red ginger to be processed while explaining how to clean, wash, cut and blander red ginger. Ginger is cleaned from the soil or dirt attached to red ginger by washing it with water while brushing, then the ginger is drained and cleaned of the skin to ensure that the ginger is really clean from dirt and dirt and washed again and drained, then the ginger is sliced to make it easier to blander the ginger.

The series of ginger ingredients preparation can be seen in the picture below:



Figure 1: Red Ginger



Figure 2: Cleaning Red Ginger



Figure 3: Red Ginger after cleaning



Figure 4: Peeling Red Ginger Peel



Figure 5: Chopping/Slice Red Ginger

2. Extraction (Squeeze)

After the red ginger is cut using a cutting board, put into the blender little by little by mixing 1 liter of water, the ginger blender until soft. The ginger is filtered and squeezed using a sieve. The ginger juice is deposited for 10 minutes to separate the starch from the ginger water due to the gelatinization of the starch and the clumping during the final process of making ginger. The extraction or squeeze process can be seen in the image below:



Figure 6: Ginger juice

3. Cooking

The filtered ginger water is put into the pan and cooked and stirred continuously until the ginger water decreases, then sugar is added in a ratio of 1:2 then stirred continuously until thick and slightly browned in color and the heat is reduced while stirring until crystals are formed. Cooking can be seen in the picture below:



Figure 7: Cooking Process



Figure 8: The process of adding sugar



Figure 9: The stirring process



Figure 10: Instant Ginger Powder is cooked

4. Styling

After it is in the form of a crystal powder, cool the ginger powder and when it has cooled, sift it so that the fine and coarse powder are separated, for coarse powder we blend so that it is smooth and sifted again. For sifting, you can see the picture below:



Figure 11: Blender Process



Figure 12: Styling Process

5. Packaging and labeling

Crushed ginger powder is packaged using plastic and labeled to provide information on the products we package.



Figure 13: Packaging



Figure 14: Labeling

CONCLUSION

Community service activities through red ginger instant powder processing training at RT 03 RW 01 Kubang Jaya Village, Siak Hulu District, Kampar, went well and received a positive response from the participants. This training succeeded in increasing the knowledge and skills of women in processing red ginger into instant products that are practical to consume, beneficial for health, and have potential economic value. The instant ginger powder products produced can be used as an alternative to household businesses so as to contribute to improving family welfare. Thus, community empowerment through the processing of local herbal ingredients has proven to be effective in supporting the use of natural resources and fostering community economic independence.

REFERENCES

- Aliyanti, Lia, Nadiya, Selvia, Y. Y. (2022). *ANALISIS KANDUNGAN VITAMIN C DAN FISIK Sistem imun merupakan sistem daya tahan tubuh terhadap serangan substansi asing yang terpapar ke tubuh kita . Substansi asing tersebut bisa berasal dari luar maupun dalam tubuh sendiri . Salah satu vitamin yang direk.* 246–255.
- Farmasi, F., & Hasanuddin, U. (2018). *SENYAWA BIOAKTIFNYA.* 5(1), 271–278.
- Harmono, Andoko A., 2005. *Budidaya dan Peluang Bisnis Jahe*, Penerbit Agromedia Pustaka.
- Mustarin, A., Rahmah, N., Muhammad, A., Mukhlis, A., Pendidikan, P., Pertanian, T., ... Makassar, U. N. (2021). *Pengolahan Serbuk Instant Jahe Merah.* 1258–1263.
- Wijakusuma H., Sehat dengan Jahe. <http://www.suarakarya.online/news>.