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## TRAINING AND MENTORING IN MAKING BEETROOT FOOD AND DRINKS TO PREVENT CANCER

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#### **ABSTRACT**

Beetroot, also known as Beta Vulgaris L, is a type of tuber plant that is reddish purple in color and has a shape similar to a potato. The pigment found in red beets is betalain, betalain is a class of antioxidants. Betacyanin is classified as an antioxidant that can prevent cancer, Cancer is one of the most devastating diseases affecting many people around the world. It is characterized by the uncontrolled growth of abnormal cells in the body, which can spread to other tissues through a process called metastasis. Beetroot has been linked to various health benefits, including its ability to fight cancer. However, public knowledge and understanding of the benefits of beetroot and how to cook it creatively and enjoyably is still limited.

The solution is provided through training and mentoring for the community in making foods and beverages containing beetroot, ranging from practical training sessions to creating recipes that are easy to understand and follow. method of providing material on the importance of beetroot for preventing cancer as well as training and mentoring or hands-on in making beetroot juice and pudding.

This community service activity was held at the Dinar Indah Cluster, RT 04 RW 26 Meteseh, Tembalang, with 30 participants. The activity included providing information on the importance of beetroot in preventing cancer. Community service activities also involve hands-on activities involving making beetroot juice and pudding by participants. Based on the results of the comparison between the pre-test and post-test, there was a significant increase between the scores of 40-60 to 80-100. This increase in scores indicates that the participants' understanding of beetroot, starting from the scientific aspects, nutritional content, to its role in cancer prevention, has experienced a real increase, and 100% of participants stated that the benefits of beetroot are very good for preventing cancer and encouraging people to adopt healthy behavior by diligently consuming beetroot.

### Keywords: Beetroot, Cancer, Juice, Pudding

#### Introduction

Beetroot, also known as Beta Vulgaris L, is a type of tuber plant that is reddish purple in color and has a shape similar to a potato. Beets are a highly beneficial food ingredient. One of

their benefits is providing natural color in food products. The pigment found in red beets is betalain, a type of antioxidant. Betacyanin is classified as an antioxidant that can prevent cancer. Cancer is one of the most aggressive diseases affecting many people worldwide. Cancer is characterized by the uncontrolled growth of abnormal cells in the body, which can spread to other tissues through a process called metastasis. Community service (PKM) is an effective approach to providing affordable and accessible solutions to communities facing health challenges such as cancer. By leveraging knowledge and expertise in the health sector, PKM can be a means to raise public awareness of the importance of a healthy lifestyle and a balanced diet in preventing cancer. To address the challenges faced by our partners, we developed a series of systematic and measurable solutions based on the identified priority issues.

These solutions include various training and mentoring activities designed to improve community knowledge, skills, and access to beetroot as a cancer prevention tool.

#### Methods

This community service activity was carried out at Perum Dinar Indah Meteseh Tembalang with 30 participants, the method used in this community service was by providing material about the importance of beetroot for cancer prevention as well as training and mentoring or direct practice in making beetroot juice and pudding by participants as well as providing pre-test post-test and evaluation of activities to measure the importance, understanding and knowledge of participants about the benefits of beetroot for preventing cancer and getting participants used to living healthily by diligently consuming beetroot.

#### **Results and Discussion**

Community service activities "Training and Mentoring in Making Beetroot Food and Drinks to Prevent Cancer" can be implemented effectively, meeting the targets including the output of community service activities so that they have a significant positive impact on public health in Meteseh Village, this community service activity was carried out in the Dinar Indah Meteseh Tembalang Cluster with 30 participants. The activity was carried out by giving a pre-test, presentation of the benefits of beetroot to prevent cancer, question and answer, hands-on making of juice and pudding by participants, giving a post-test and evaluation of the activity. The results obtained from the pre-

test post-test and evaluation of the activity, the average pre-test score was 40-60 while the posttest score was 80-100. This increase in scores indicates that the participants' understanding of beetroot, starting from the scientific aspects, nutritional content, to its role in cancer prevention, has increased significantly. Based on the results of the comparison between the pretest and post-test, it can be concluded that this training and mentoring activity has succeeded in achieving its objectives, namely increasing public knowledge about beetroot as a functional food ingredient that has the potential to prevent cancer and increasing public interest in always consuming beetroot in juice drinks and processing it into pudding. And the evaluation results show that this activity is very effective in providing education, increasing knowledge, forming positive attitudes, and encouraging healthy behavior in the community. Positive responses with an average score above 90% prove that the activity has achieved the expected objectives, namely that beetroot is very useful for preventing cancer and can provide positive support to the community to often consume beetroot for a healthy life.

Beetroot Pudding Recipe, Ingredients: 1 beetroot, 250 ml UHT milk, 1 packet of plain agar-agar, 120 grams of granulated sugar, 750 ml of water. Method: Peel and wash the beetroot, blend, and strain to remove the pulp. Mix the beetroot juice with the ingredients, cook over low heat until boiling, then pour into molds

Beetroot Juice Recipe. Ingredients: 1 beetroot, 1 apple, 1 carrot, water, 1 tablespoon honey, ½ lemon. Method: Peel and wash the beetroot, carrot, apple, and lemon, cut into pieces, blend all ingredients, strain, and add honey. The beetroot juice is ready to serve.







#### Conclusion

It can be concluded that this training and mentoring activity succeeded in achieving its objectives, namely increasing public knowledge about beetroot as a functional food ingredient that has the potential to prevent cancer and increasing public interest in always consuming beetroot for a healthy life.

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