



## **Women Empowerment through Tempeh Making Training from Melinjo Seeds in Cikumbueun Village, Pandeglang, Banten**

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### **Abstrak**

Penelitian ini menyoroti peran penting wanita khususnya ibu rumah tangga dalam pemenuhan gizi keluarga dan pemberdayaan ekonomi melalui kreativitas, khususnya dalam pemanfaatan bahan lokal seperti biji melinjo. Di Desa Cikumbueun, pemanfaatan melinjo yang melimpah sebagai bahan dasar tempe menjadi fokus pelatihan untuk meningkatkan keterampilan dan kesejahteraan ibu rumah tangga. Metode yang digunakan mencakup pembuatan tempe, sosialisasi, dan evaluasi melalui kuesioner. Hasil pelatihan menunjukkan respons positif dari peserta dalam aspek penyampaian informasi, ketersediaan bahan dan alat, serta pemahaman langkah pembuatan tempe melinjo. Pelatihan ini berhasil meningkatkan kreativitas ibu rumah tangga, memberikan wawasan baru tentang pemanfaatan bahan pangan lokal, dan berpotensi meningkatkan ekonomi keluarga melalui peluang pemasaran komersial tempe melinjo. Evaluasi juga menunjukkan peningkatan keterampilan dan produktivitas ekonomi peserta, serta potensi pengembangan produk inovatif dari tempe melinjo. Dengan demikian, pelatihan ini efektif dalam mendorong pemberdayaan ekonomi dan inovasi pangan berbasis sumber daya lokal.

**Kata kunci:** *Pemberdayaan wanita, Pelatihan Pembuatan Tempe, Biji Melinjo*

### **Abstract**

*This research highlights the important role especially woman of housewives in fulfilling family nutrition and economic empowerment through creativity, especially in the utilization of local materials such as melinjo seeds. In Cikumbueun Village, the utilization of the abundant melinjo seeds as the basic ingredient for tempeh became the focus of training to improve the skills and welfare of housewives. The methods used included tempeh making, socialization, and evaluation through questionnaires. The results of the training showed a positive response from participants in terms of information delivery, availability of materials*



*and tools, and understanding the steps of making melinjo tempeh. The training succeeded in increasing the creativity of housewives, providing new insights into the utilization of local food ingredients, and potentially improving the family economy through commercial marketing opportunities for tempe melinjo. The evaluation also showed an increase in participants' skills and economic productivity, as well as the potential for innovative product development from tempe melinjo. Thus, this training is effective in encouraging economic empowerment and food innovation based on local resources.*

**Keywords:** *Women empowerment, Tempeh Making Training, Melinjo seeds*

## **Introduction**

Tempe is a type of traditional Indonesian food derived from the fermentation process made from legumes and using the fermentation agent *Rhizopus* spp. Tempe making generally uses soybeans, but can be varied by using several types of grains such as melinjo seeds. In Cikumbueun Village itself, especially Gunung Jalu Village, melinjo is one of the abundant local commodities and has great potential to be processed into high-value products. The utilization of melinjo, especially its seeds in Cikumbueun Village, is generally only used as raw material in making emping.

Melinjo seeds are the most utilized part than other parts (Ummah and Susanti 2022). Based on research conducted by Ira and Ikhda (2015), melinjo seeds are known to contain antioxidants such as polyphenol compounds, alkaloids, saponins, polyphenols, and flavonoids. The development of melinjo seeds as processed food has great potential in increasing creativity and becoming one of the innovations in opening a promising business. Thus, the empowerment of housewives is carried out to foster the creativity of housewives, improve family welfare and empower the economy of the surrounding community. Thus, this activity is a strategic step in training creativity and at the same time improving the family economy.

## **Implementation Method**

This research consisted of three main stages, namely tempe making, socialization, and questionnaire filling. The process of making tempeh refers to the research of Yulia et al. (2019) with some modifications. The initial stage begins with washing melinjo seeds using clean water to remove dirt. After that, melinjo seeds were boiled for 30 minutes to remove the sap. Next, the boiled seeds were soaked for 2 hours to hydrate the melinjo seeds to make them more ready for the fermentation process. After soaking, the melinjo seeds are washed again to remove the sour odor that appears during the soaking process. Next comes further processing, where the shells of the melinjo seeds are peeled clean. After that, the melinjo seeds are washed again and boiled for 30 minutes until cooked. After the steaming process is complete, the melinjo seeds are drained and allowed to cool first before the yeast inoculation stage. When the melinjo seeds are cool, 2 grams of tempeh yeast is added for every 200 grams of melinjo seeds. Finally, the fermentation process is carried out at room temperature for approximately three days until the tempeh is well formed.

The second stage is socialization which aims to introduce the utilization of melinjo seeds as a food diversification product while improving the skills of housewives. In addition, this empowerment activity is expected to inspire housewives to develop new business ideas that have the potential to improve the

family economy. The socialization was given to the training participants with the hope that they can understand the benefits and business opportunities of processing melinjo seeds into tempeh, so that it can be applied in everyday life or developed as an independent business.

After conducting the two previous steps, the third step was to fill out a questionnaire. The questionnaire serves as an evaluation tool to assess the effectiveness of delivering information to the women. Through the questionnaire, we were able to determine the extent to which the participants understood the tempeh making from melinjo that had been delivered, as well as identify parts that were still unclear or needed further explanation. In addition, the questionnaire is also useful to evaluate the quality of the tempeh melinjo socialization, including the delivery method. By the answers to the questionnaire obtained, we can make improvements and improvements in the manufacture of tempeh melinjo..

## Result and Discussion

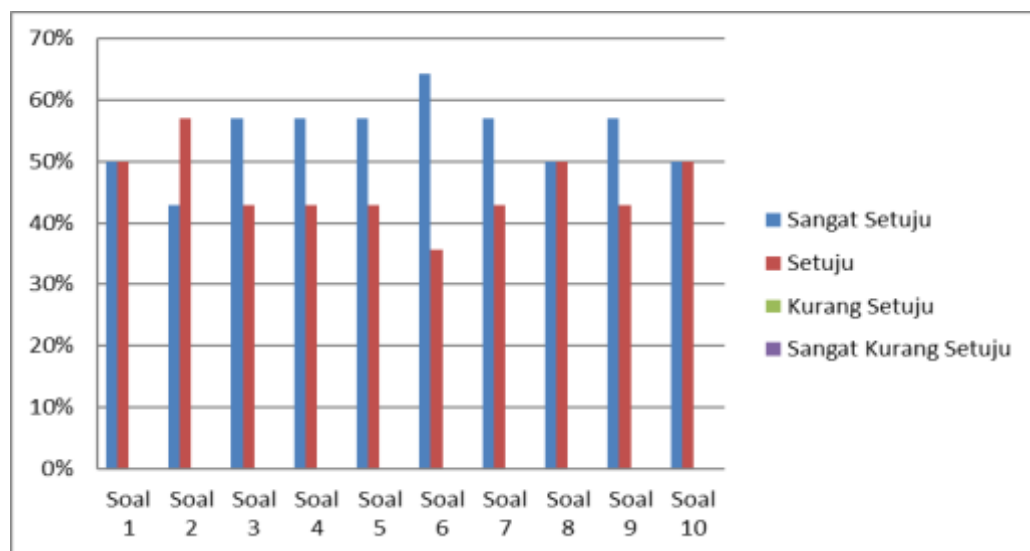


Figure 1. Response questionnaire data of melinjo seed tempeh training participants

Based on the evaluation of the tempeh melinjo production training, the majority of participants responded positively to the aspects of information delivery, availability of materials and tools, and ease of understanding the recipe and steps. This shows that the method used in the training was effective in helping participants understand and apply the technique of making tempeh melinjo. In addition, this training also contributed to increasing the creativity of mothers in processing melinjo into innovative products and providing new insights related to the utilization of local food ingredients. According to Nasution (2024), training that targets the improvement of community knowledge and skills has been proven to increase the ability to produce various processed products made from local ingredients, including tempe melinjo.

Furthermore, the training was considered beneficial in improving participants' skills and economic productivity. Most respondents stated that the tempeh melinjo products produced have the potential to be marketed commercially. Thus, this training not only provided new knowledge, but also encouraged the economic empowerment of mothers through food innovation. The results of the training program conducted in Marbau Selatan Village showed that the participants were

very happy with the results enthusiastic and able to practice the techniques taught, leading to the development of innovative new products (Nasution, 2024).

The tempeh-making training proved effective in improving participants' understanding, skills, and creativity, especially in utilizing local materials such as non-soy beans. The lecture and demonstration methods used made it easier for participants to understand the process of making tempeh. In addition, the training also opened up insights into the economic potential of tempeh, encouraged household business empowerment, and improved soft skills such as critical thinking and entrepreneurship, so that participants were better prepared to develop local food-based businesses (Mayarni et al. 2024).

The emphasis on the importance of innovation in using local food ingredients is also evident in the efforts to link the skills gained from the training with wider business opportunities. Training and mentoring played an important role in improving the community's skills in developing various products based on local ingredients, including tempe melinjo. With appropriate training methods and innovative approaches, the program has succeeded in creating new opportunities in food processing and strengthening the local resource-based economy (Nasution, 2024).

## **Conclusion**

Mothers have a vital role in providing nutrition for the family. Empowering housewives, especially in Cikumbueun Village, through creativity and development of tempe melinjo as a high-value product, can improve family welfare and the community's economy. Tempe melinjo is an innovation that has the potential to open promising business opportunities. Through research and training at the KKM Group 65 Post, tempe melinjo is made using melinjo seeds, tempe yeast, water, salt, and plastic. The process of making tempeh involved the preparation of melinjo seeds, fermentation with tempeh yeast, as well as socialization and filling out questionnaires to assess the effectiveness of the training. The training evaluation showed positive responses from participants on the delivery of information, availability of materials and tools, and understanding of the recipe and steps for making tempeh melinjo.

This training succeeded in increasing creativity in processing melinjo into innovative products, as well as providing new insights related to the utilization of local food ingredients. The positive impacts of this training include increased skills and economic productivity of participants, as well as the potential for commercial marketing of tempeh melinjo products. The training program also encourages economic empowerment of mothers through food innovation. The enthusiastic response from the participants and their ability to practice the technique of making tempe melinjo shows the potential for innovative product development. The training was effective in improving participants' understanding, skills and creativity in utilizing local ingredients. In addition, the training opened up insights into the economic potential of tempeh and household business empowerment. The lecture and demonstration methods made it easier for participants to understand the tempeh-making process, while the emphasis on innovation in the use of local food ingredients strengthened the local resource-based community economy.

## **Acknowledgments**

We would like to express our deepest gratitude to Sultan Ageng Tirtayasa University as the organizer of the Real Work Lecture (KKM) which has given us a valuable opportunity to contribute to Cikumbueun Village. This activity not only

enriches our experience, but also brings real benefits to the local community. We would also like to thank the housewives in Cikumbueun Village, especially the housewives in Gunung Jalu Village, who have become enthusiastic audiences in the activity of making tempeh from melinjo seeds. The active participation and enthusiasm of the women played an important role in the success of this activity. Hopefully the knowledge and skills shared can provide long-term benefits and help improve the welfare of the Cikumbueun Village community. Thank you for all the support and cooperation that has been established.

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