Production and Manufacturing Training of Rosella Processed Product for Women Farmers in Pagung Village, Semen, Kediri

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Received: 16 August 2019; Accepted: 25 August 2019; Published: (published soon; awaits for ISSN)

Abstract: Dedication for community was performed to increase added value of rosella to prosperous the women farmers in Pagung village, Semen, Kediri. Rosella was sold in dried (not processed product) to middleman in all this time. We expected women farmers find out the way to process rosella into jam, syrup, juice and teabag. Processing of rosella product is expected to prosperous the women farmers in Pagung Village, Semen, Kediri. This dedication for community involves student in community empowerment activities, with intention to implement their knowledge in processing rosella. The training was held in 3 days, on May 16-18, 2019. After the training we also doing mentoring until the community could make the processed product. The participant of this training was 30 women farmers in Pagung Village, Semen. The target of this training is every participant could make rosella processed product properly so it can be traded. Satisfactory results were obtained from this dedication for community, which is held by the team, village administrator and student collaboration. Beside each participant was very enthusiastic, they also become skilled in production of rosella processed product. Each participant has an opportunity to practice directly. This training can increase the knowledge how to manage rosella more economical and have high price.

Keywords: training; rosella; community service

1. Introduction

Rosella is a prevalent plant in Indonesia. This plant is known as medicinal plant, has a fruit shapes resemble petals. Rosella is wide cultivated because of its efficacy, one of the is reduce blood pressure, corresponds to Rohaedi (2008) and Mumin, et.al. (2008). Ekanto and Sugianto (2011) convey that the other efficacy of rosella is improving physical abilities, in case physical abilities when swimming.

One best areas for planting rosella is Pagung Village, Semen, Kediri, this area classified as dry and barren. Rosella can be planted in less water area. Pagung village, is one area in sub-district Semen, in appropriate with rosella growing conditions. Rosella widely planted in Pagung Village, but only used for daily or family consumption. For some farmers, rosella is planted and sold in dried. Rosella is planted in this area has excellence such as has a larger size and large amount of flowers in a single plant. Rosella is sold in dried without any processing. Farmers grow rosella only for side crops.

The women farmers in Semen Kediri, just sells rosella to middleman in dried. Therefore it is necessary to hold the manufacture training of diversification product of rosella to increase added value and women farmers income. In this time, consumers want a practical, efficient and effective product. While to get the benefit from rosella, the consumer has to boil dried rosella in boiling water in 8 – 10 minute (Morton, 1987). Rosella processed product are tea bag, syrup, jam and extract/ juice. In diversification process, no food colouring agent needed, because rosella has an
attractive red colour. Meanwhile, to reduce sour taste, safe and health sweetener needs to be added with the dose allowed by National Agency of Drug and Food Control.

In an effort to get rosella juice/extract, it is necessary to do extraction by boiling. Rosella juice/extract from boiling has a dark red colour and very sour. The red dark colour indicates the presence of anthocyanin, in the form of daphniphylline compounds in high level (Bridle and Timberlake, 1997). Therefore rosella can also be one source of natural dyes that have better safety than synthetic dyes. While the sour taste in rosella, indicates the content of vitamin C (ascorbic acid) in high levels (Morton, 1987).

After the training for women farmers, it is expected to have skill, so they no longer sell dried rosella. In the long period, it is hope that rosella processed product can be regional superior product and can increase income in Pagung Village.

2. Materials and Methods

The training activity was designed to equip the community with the skill to make various rosella processed product, especially in Pagung Village. The method used in this program is classroom training and learn firsthand. Training is a process that includes a series of action (efforts) carried out deliberately of providing assistance by training professionals in a time, aimed to improving the work ability of participants in certain fields of work in order to increase effectiveness and productivity in an organization (Hamalik, 2001).

To find out what is needed, observation was made on environmental conditions and community activities, especially women (both teenagers and housewife in Pagung Village. Further, a discussion was held with village administrator regarding community activities to complete the required data.

Data analysis was performed qualitative approach. A qualitative approach is analyzing data from observation and discussion on training participant. The training was held in one of famers home on May 16-18, 2019. Details of activity were opening by representatives of Pagung Village, greeting from PKM team, and any speaks from presenter then continued with production and manufacture training of rosella processed product such as jam, tea, syrup and rosella juice or extract.

The training of rosella product manufacturing was divided to be 4 sessions. First, the community was trained to produce tea bag production for rosella tea product. Second, rosella jam production training was educated to create an alternative developed product from rosella. The next, rosella syrup has also been trained to the community. The last, rosella can be proceeded to be essence juice drink as another alternative product, and the community was trained for it.

To precede rosella tea bag, it requires several materials, such as blender, tea wrap/bag, rope and sticker, sealer, and standing plastic touch. First, blend rosella using blender, and sifting if

Fig. 1. (a) Rosella tea bag, (b) rosella jam, (c) rosella syrup, and (d) rosella essence juice drink.
required. Then, put the blended rosella 2 g (2 table spoons) in a tea bag. After that, put the string and the sticker in the bag, and then seal it. Finally, put in tea bags in standing plastic pouch/package, labelled and ready for market (Fig. 1a).

For rosella jam production, it requires blender, scarring tools, stove, griddle, jam jar, fresh rosella, medium size of pineapple/ripped papaya, sugar, cinnamon, and salt. First, wash off 500 g of rosella, blanching, drain and then blend. For Pineapple/papaya, rough grated (it is better not using blender). The next, prepare a griddle, add grated pineapple/papaya, rosetta (which have been blended), cook in medium heat, keep stirring. Then, if it has thickened, add around 400 – 500 sugar and 10 cm cinnamon (add a half teaspoon of salt if needed). After that, cook it until thick. And the last, Turn off the stove, let it cool and ready for packaging/using for cookies filling (Fig. 1b).

To precede rosetta syrup, it requires several materials, such as stove, pan, spatula, dried rosella, sugar, salt, water, and syrup packaging. First, wash off 150 g rosella, drain and put in to pan. Then, Added 7 glasses of water, cook in medium heat. After boiling, put in 1000 g of sugar and a half teaspoon of salt, then keep stirring. Continue cooking until the water is almost gone dan rosetta drowned. After that, take the flower dregs, and then continue cooking until syrup is thick. Finally, turn off the stove; let it cool and ready for packaging (Fig. 1c).

For rosella essence juice drink, it requires blender, stove, fresh rosella (seedless), sugar, citric acid, sodium benzoate, and water. Firstly, dilute 125 – 150 g sugar in 1 litre water, 0.25 g citric acid in 1 litre extract rosetta, and 0.4 g sodium benzoate in 1 litre extract rosetta, separately. In other steps, wash off fresh rosella, blanching, drain and then blend it. After that, boil rosetta juice in boiling water in 10 minutes. Then, it filtered using chiffon fabric. After that, cook until reach temperature 90 °C, then adding sugar solution. Then, it filtered again using chiffon fabric. The filtered extract added sodium benzoate and citric acid solutions. After that, turn off the stove. Finally, pack it then label it (Fig. 1d).

3. Results and Discussion

The training was held in one of women farmers’ home in Pagung Village, Semen, Kediri, and also the place for tools and machines located. Rosella processing tool and machine is a support from UNISKA community partnership program team by Ministry of Research, Technology, and Higher Education. At the event, one of the authors gives his speech as a Leader of PKM team. Mentoring of training activities is carried out by PKM team and assisted by students.

Production and manufacturing training for women farmers, it is expected to have skill, so they no longer sell dried rosella. In the long period, it is hope that rosella processed product can be regional superior product and can increase income in Pagung Village. Rosella processed product such as jam, tea, syrup and rosetta juice/extract. After getting a detail explanation, participants carry out hands on practice from production to packaging product. The training carries out on May 16-18 2019 by optimizing the practice, until all the participant could understand every step and could practice in future.

First activity was briefing and discussion by the speakers. Material provided is manufacturing rosetta processed products such as tea, jam, syrup and rosetta juice/extract. This activity is expected to make every participant can understand step by step how to produce rosetta processed product. All equipment was prepared by speaker and PKM team while all the raw materials were prepared by participant. After briefing and discussion, this event was followed by manufacturing and production training. The training was attended by 30 participants from farmer group members in Pagung Village, Semen District, Kediri.

Supporting factors of this activity include,

a. Good coordination and cooperation between PKM team and representative of Pagung Village, especially in planning work programs,
b. Good communication between participant, PKM team and UNISKA student, with clear information as input to the team in this activity,
c. Rosella is overflow available in Pagung Village,
d. The community was very enthusiastic because the never have received training on rosella processed product before.

Inhibiting factors include,
a. Educational background and occupational are different so the absorption and application of this training shows different result for each participant,
b. Most participants (women farmer) have toddlers who are still under surveillance, making it difficult to allocate time.

By the training that has been carried out, participants understand what potential can be created from surrounding environment which able to open a creative and innovative industries later, so as increasing the quality of skills and ways of thinking around the community (Astuti and Luayyi, 2018). The training will give participants opportunity to experience the learning process completely and comprehensively. Training is one way to develop human resources (Afiatin, 2013).

4. Conclusions
Based on the objective, it can be concluded as follows,
1. The community was more enthusiastic to participate the manufacturing and production training of rosella processed product,
2. The community knows how to process rosel la so they can added value of rosella,
3. This program also increases student knowledge in processed product and increase communication soft skills in community,
4. In the process of making rosella processed product, they only use household appliances which are mostly owned by participant, so they can start business easily in Pagung Village, Semen, Kediri.

5. Acknowledgement
Authors would like thank to Ministry of Research, Technology, and Higher Education for community service grants in 2019. And also, thank by authors especially addressed to representative of Pagung Village, Women farmers group and all participant for corporation and collaboration. Thanks for Islamic University of Kadiri for always supporting all the lectures and students to did dedication for community. No authors is in conflict.

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