

The Application of Good Manufacturing Practices (GMP) Instant Ginger Processing in UKM UD. Barokah Ungaran Semarang Regency

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Abstract— This study aims to determine the application of Good Manufacturing Practices (GMP) of instant ginger processing in UKM UD. Barokah Ungaran, Semarang Regency, began the process of producing instant ginger from the preparation process of instant ginger raw material, the process of making instant ginger, handling the final product including packaging, storage, business analysis and marketing, knowing the condition of facilities and infrastructure used in the process of making instant ginger. The research was conducted by participating in running a business in UKM UD. Barokah. The research method used is direct observation and participation in the application of GMP and making instant ginger in UD Barokah UKM, interviews (interviews), and library research from books, and the internet relating to instant ginger. The results of the study concluded that SMEs. UD. Barokah has not fully implemented CPMB, so it still needs to do a lot of improvement, especially in terms of providing facilities, buildings, walls, roofs, ventilation, sanitation facilities (water supply facilities, disposal facilities, toilet facilities and hand washing facilities), production equipment, material inspection raw materials and products, laboratory equipment, employees, halal labels, storage facilities, maintenance programs, supervision, and training and guidance. The prospect of profit from the sale of powdered drinks is quite good, an average of 20 packs sold sometimes sometimes more. The profit that can be obtained in a month is Rp 1,605,000.

Keywords— Ginger, GMP, processing.

I. INTRODUCTION

Indonesia is a country rich in biological natural resources. One source of wealth comes from the many types of traditional medicinal plants that are in nature. Over time, now people consume safe food and health products with the slogan "back to nature" based on the awareness to consume healthy food. This has increased demand for organic rhizome products, including ginger for direct consumption or processed products (Balitro, 2008).

Ginger (*Zingiber officinale* Rosc.) Is one type of plant that belongs to the Zingiberaceae tribe. The name Zingiber is derived from the Sanskrit "singabera" (Rosengarten 1973) and the Greek "Zingiberi" (Purselove et al. 1981) which means horn, because the shape of the ginger rhizome is similar to that of a deer antler. *Officinale* is Latin (*officina*) which means it is used in pharmacy or medicine (Janson 1981). Ginger or Ginger contains a variety of nutrients or nutrients as well as minerals and plant compounds that are beneficial to human health.

Instant ginger can we consume directly by brewing without a difficult process by processing ginger into powder which is added with other ingredients such as sugar, cinnamon and lemongrass. To support the processing of instant ginger requires a mechanism (GMP) of good manufacturing practices to prevent the dangers that arise from the process of making instant ginger. This is to maintain the product when consumed by the public. GMP (Good Manufacturing Practices) is a guideline for industries, especially industries related to food, cosmetics, pharmaceuticals and medical devices (medical devices) to improve the quality of their products, especially

related to the quality of the products produced and quality assurance of their products (BPOM, 2012).

II. METHOD

The research method used was direct observation and participation in making instant ginger in UD UD. Barokah, conducted an interview (interview) with the owner of UKM UD. Barokah, and literature studies from books, and the internet relating to the application of GMP instant ginger. This research lasted for 2 months, starting from 1 July 2018 and finished on 31 August 2018

III. RESULT AND DISCUSSION

Company Profile

Medicinal plants in Indonesia are natural resources that have high economic value. Medicinal plants have great economic value. Processing medicinal plants into health drinks has the opportunity to increase the utilization of medicinal plants into instant drinks. Mrs. Lilis Syarifah first made the fragrant ginger recipe in December 1997. The recipe used came from the gift of her biological mother, Suharti's mother. Initially the production of 2 kg of fragrant ginger. As time goes by the production of fragrant ginger increases. In 1998, licensing was arranged so that it was registered with the Ministry of Health (Kemenkes). Subsequently, in 2000, registered industrial registration licenses (TDI), company registration certificates (TDP) and trade business licenses. PIRT No. 212332204002.

Products produced from U.D. Barokah includes: fragrant ginger, red ginger, sour turmeric, white turmeric, curcuma, kencur rice, betel key, carrot juice, alang-alang ginger, alang-alang ginger syrup.

Application of GMP

GMP is a guide to how to produce food that aims for producers to meet the requirements that have been determined to produce quality products according to consumer demands. Quality is the overall characteristic of a time (product, activity, process, organization, or human) that shows its ability to meet the predetermined needs. GMP includes specific GMP and GMP umbrellas. The GMP umbrella is a reference to whether the GMP has been implemented, which consists of GMP's main components, namely general preventive measures (regulations relating to personnel), buildings and facilities (clean environment, factory construction, water facilities, sewage disposal, toilets and hand washing), equipment (design and construction of food processing equipment), production and process control, recording and reporting, and defect action levels, specific GMP is the application of GMP to certain products (Stauffer, 1988).

The concept of GMP is a guide that provides an explanation of the important requirements that should be met in the entire food production and distribution chain, starting from primary production, namely the production of raw material procurement to the final consumer. Emphasis is directed on the hygiene conditions that are important in producing safe and suitable food for consumption as stated in the General Guidelines for Food Hygiene and recommends the application of HACCP to make it possible to improve food safety.

Food safety is a condition that guarantees that the food consumed does not contain hazardous substances that can cause illness and poisoning that harm consumers. Eligibility for consumption is a condition that guarantees that food produced normally is fit for human consumption, which means it does not suffer damage, smell bad, disgusting, dirty or polluted.

The elements of the food safety system include the HACCP plan and some of its supporting programs (cleaning programs, GMP, pest control, calibration training and supplier reputation), the program needed depends on the nature of the business (Graha Sucofindo, 2000).

These CPMB application guidelines are based on general guidelines for food hygiene and laws and regulations in the field of food, especially those governing food production.

The general goal of CPMB is to produce quality, nutritious, safe food to consume and meet the tastes of consumers, both domestic and international consumers. CPMB is a "key to quality" and a production guide suggested by experts to be applied by industry, especially the food and beverage industry (Dewanti, 2001).

The specific purpose of CPMB is to provide important basic principles in food production that can be applied along the food chain, from primary production to end consumers, to ensure that food produced is safe and suitable for human consumption, directing the industry to meet various production requirements such as location, building and facility requirements, production equipment, employees, materials, processes, final product quality, and storage and distribution requirements suggest the approach and application of HACCP as a way to improve food safety and provide a basis for the

preparation of other specific guidelines and needed for various sectors in the food chain, for example CPMB guidelines for certain products.

The CPMB program must cover all aspects of production and processing that are applied to aspects of general household affairs, handling and storage of raw materials, production, warehousing, to businesses controlling pest animals, disposal and handling of waste and other public facilities.

The advantage of implementing CPMB for the industry is that it can produce and provide food that is safe and appropriate for consumers to provide clear and easy-to-understand information to the public, for example by labeling and providing instructions on how to store and supply it, so that the community can protect food against possible contamination and damage. food, that is by storing good handling and preparation and maintaining or increasing the trust of the international world for the food it produces. The implementation of CPMB is expected to provide guarantees for the safety and health of workers, improving product quality and increasing company profits.

According to the Directorate General of POM (1995), the initial step that needs to be considered in implementing the CPMB is the attitude, behavior and responsibility of all company members towards the food products produced. Application of CPMB for UKM UD. Barokah is relatively simpler when compared to factories. This is because the nature of instant ginger products is more resistant to microbes and the target market is normal consumers.

CPMB based on RI Minister of Health Decree No. 23IKESI1978, including: Location, Buildings (general, spatial, floor, wall, roof and ceiling, doors, windows, ventilation and temperature control, material and equipment sanitation, production room sanitation, environmental sanitation, toilet facilities, hand washing facilities), Production Equipment (general, equipment layout, supervision and monitoring of equipment, materials, processing processes, laboratories, employees, containers and wrappers, labels, storage, maintenance of processing facilities and sanitation activities, transportation, management and supervision, documentation / recording, product recall, training and coaching,

The results of the study concluded that UKM UD. Barokah has not fully implemented CPMB, so it still needs to do a lot of improvement, especially in terms of providing facilities, buildings, walls, roofs, ventilation, sanitation facilities (water supply facilities, disposal facilities, toilet facilities and hand washing facilities), production equipment, inspection of raw materials and products, laboratory equipment, employees, halal labels, storage facilities, maintenance programs, supervision, and training and guidance.

Trouble Solving Alternatives

1. Procurement of storage cabinets so that raw materials and production equipment can be maintained properly.
2. Buildings and rooms should be made based on plans that meet the technical and hygiene requirements, according to the type of food produced, but because of UD UKM. Barokah still joined the owner's house, so the construction of the building

and its layout did not meet CPMB. Based on the results of interviews with SME UD owners. Barokah building buildings for SMEs itself requires a long time and cost. Efforts to layout should be strived to improve in a better direction so that it can meet CPMB.

3. Construction of the floor should be designed in such a way as to meet good food hygiene practices, which are durable, facilitate water disposal, are not stagnant and easy to clean, and are disinfected. Therefore, the arrangement of goods that have cleanliness can be strived to be arranged properly.

4. Construction of walls or room dividers, should be designed in such a way that it is durable and meets good food hygiene practices, which are easily cleaned and disinfected, and protects food from contamination during the process. Therefore, it is better if the wall is cleaned or repainted to prevent spots or mildew.

5. Replacing asbestos roofs with durable materials such as roof tiles or spandex and done in an effective manner right in the production room can make the roof does not leak easily and keep the roof cleaner.

6. The use of air circulators at the top for air circulation or justification of the function and replacement of existing exhaust fans, in order to provide work comfort for workers. Adding gauze needs to be done in the ventilation holes, so as to prevent the entry of insects and reduce the entry of dirt into the room. The food production process will not produce good quality products, if the raw materials used are of low quality or have been damaged, rotten, or contaminated with hazardous materials, even though the processing processes are quite good and the raw materials that meet the requirements will guarantee the products produced meet the quality requirements and food safety, as well as ensuring the processes implemented can control food quality and safety, because the production process is designed to handle and process raw materials that meet quality requirements.

7. Processing equipment and containers that come in direct contact with food must be designed, constructed, placed in such a way and always considered clean to ensure the quality and safety of the products produced. Therefore, the tool should always be cleaned every day and always get supervision. Sanitation is an important part of the equipment used in the production process. It is advisable to clean equipment regularly and effectively, which is accompanied by monitoring and monitoring every week. Effective cleaning is cleaning done any time after use (usually late in the afternoon, after work is finished) by washing thoroughly using water and soap assisted by using a soft brush or foam, and followed by rinsing using sufficient clean water.

8. UKM UD. Barokah also needs to provide more information on the importance of sanitation to workers, because the initial step that needs to be considered in implementing GMP is the attitude, behavior and responsibility of all company members for the food products produced. Employees who appear to be contracting infectious diseases such as jaundice (hepatitis A virus), diarrhea, abdominal pain, vomiting, fever, sore throat, skin diseases (itching, scabies, sores etc.), to the discharge of fluid from the ear (congek), nrata (rubbing), and nose (runny

nose) can contaminate food, so it would be wiser to be repatriated and not allowed to work.

9. In UKM UD. Barokah needed a tool to maintain a stable temperature and air circulation so the room is not stuffy.

10. Provision of training and guidance on sanitation and good production practices, because the initial step that needs to be considered in implementing GMP is the attitudes, behaviors and responsibilities of all company members towards the food products produced.

Production Cost Analysis

Production costs are all economic expenses that must be spent to produce an item. Production costs at UKM UD. Barokah raw materials and costs incurred to get the supporting factors of production that will be used to produce a product. Every time there are 40 products produced, the price is Rp 10,000. Total Total Cost / Number of 1x production = IDR 253,000 / 40 = IDR 6338. Return = Product Price / 10% = IDR 10,000 / 10% = IDR 1,000

Profit = Product Price - Return - Production yield = IDR 10,000 - IDR 1000 - IDR 6,325 = IDR 2,675.

IV. CONCLUSION

UKM. UD. Barokah has not fully implemented CPMB, so it still needs to do a lot of improvement, especially in terms of providing facilities, buildings, walls, roofs, ventilation, sanitation facilities (water supply facilities, disposal facilities, toilet facilities and hand washing facilities), production equipment, material inspection raw materials and products, laboratory equipment, employees, halal labels, storage facilities, maintenance programs, supervision, and training and coaching. The prospect of profit from the sale of powdered drinks is quite decent, an average of 20 packages a day is sold sometimes more. The profit that can be obtained in a month is Rp 1,605,000.

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