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Sanitation and Hygiene of Fish Nugget Processing for Home Industry (IRT) in Tablasupa Village, Depapre District, Jayapura Regency, Papua

Sanitasi dan Higiene Pengolahan Nugget Ikan Industri Rumah Tangga (IRT) di Kampung Tablasupa Distrik Depapre, Kabupaten Jayapura, Papua

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ABSTRACT

Diversification of Processed Fish is a new motivation to introduce to the public that fish which is usually consumed fried, grilled or cooked whole can be made into a more attractive and still nutritious food that can be consumed by children, adults and the elderly. Some diversified fishery products include: fish balls, fish nuggets, fish floss and fish sausages. Tablasupa Village is located in Depapre District, Jayapura Regency, Papua Province. Tablasupa Village is a fairly developed village in Jayapura Regency compared to other villages. Tablasupa Village has a Home Food Industry (IRTP) which is run by women in business groups. The business being run is a diversification of fish products such as fish nuggets. This business has been in development for approximately two years. In carrying out production, the IRTP Tablasupa Village women's group still uses simple infrastructure. This can have an impact on health and the environment. The aim of this research was to determine Sanitation and Hygiene in Home Industry (IRT) Fish Nugget Processing in Tablasupa Village, Depapre District, Jayapura Regency, Papua. Data was obtained from interviews with business women using questionnaires and direct observation of the process of making fish nuggets. The research results show that the fish nugget business is still on a home industry scale where the processing is carried out themselves by the women in the business group. This industry is still simple and the fish nugget processing carried out still does not meet standards because it is not supported by good infrastructure, such as a suitable location and environment, permanent buildings, sufficient availability of clean water, and the health of employees. So the business carried out does not meet sanitation and hygiene standards both in terms of infrastructure and employees or workers.

ABSTRAK

Diversifikasi Olahan Ikan merupakan motivasi baru untuk memperkenalkan kepada masyarakat bahwa ikan yang biasanya dikonsumsi dalam bentuk digoreng, dibakar atau dimasak dalam keadaan utuh dapat dibuat makanan yang lebih menarik dan tetap bergizi yang dapat dikonsumsi mulai dari anak-anak, dewasa, sampai usia lanjut. Beberapa produk diversifikasi hasil perikanan antara lain: bakso ikan, nugget ikan, abon ikan, dan sosis ikan. Kampung Tablasupa Terletak di Distrik Depapre Kabupaten Jayapura, Provinsi Papua. Kampung Tablasupa termasuk kampung yang cukup

berkembang di Kabupaten Jayapura dibandingkan dengan kampung-kampung lain. Kampung Tablasupa memiliki Industri Rumah Tangga Pangan (IRTP) yang di kerjakan oleh ibu-ibu dalam kelompok usaha. Usaha yang di jalankan adalah usaha diversifikasi produk ikan seperti nugget ikan. Usaha ini sudah di kembangkan sejak kurang lebih dua tahun. Dalam menjalankan produksi kelompok ibu-ibu IRTP Kampung Tablasupa masih menggunakan sarana prasana sederhana. Hal ini dapat memberikan dampak bagi kesehatan dan lingkungan. Tujuan dilakukan penelitian ini adalah untuk mengetahui Sanitasi dan Hygiene pada Pengolahan Nugget Ikan Industri Rumah Tangga (IRT) di Kampung Tablasupa Distrik Depapre, Kabupaten Jayapura, Papua. Data diperoleh dari hasil wawancara terhadap ibu-ibu pelaku usaha menggunakan angket dan pengamatan langsung proses pembuatan nugget ikan. Hasil penelitian menunjukkan bahwa usaha nugget ikan ini masih dalam skala industri rumah tangga yang pengolahannya dilakukan sendiri oleh ibu-ibu dalam kelompok usaha. Industri ini masih sederhana dan pengolahan nugget ikan yang dilakukan masih belum memenuhi standar karena tidak di dukung dengan sarana prasarana yang baik, seperti lokasi dan lingkungan yang sesuai, gedung yang permanen, ketersedian air bersih yang cukup, dan kesehatan para karyawan. Sehingga usaha yang dilakukan ini belum memenuhi standar sanitasi dan higiene baik dari segi sarana prasarana dan karyawan atau pekerja.

Kata Kunci	*Sanitasi, Hygiene, Nugget Ikan, Kampung Tablasupa, Papua*
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INTRODUCTION

Fisheries potential has great opportunities to carry out profitable fishing businesses and improve the community's economy. These businesses can take the form of processing fishery products. However, resource utilization, especially fish not yet utilized optimally by the community (Wodi *et al*., 2018). Most of the catches are sold directly to the market and some are consumed, because there is still little knowledge about fishery product processing (Budhiati, 2018). The fishery product processing industry, through Processed Product Diversification, can increase benefits and added value, reduce damage and loss of employment providers, and increase the community's economic income (Suhubawa & Ustadi, 2014).

Diversification of Processed Fish is a new motivation to introduce to the public that fish which is usually consumed fried, grilled or cooked whole can be made into a more attractive and still nutritious food that can be consumed by children, adults and the elderly. Some diversified fishery products include: fish balls, fish nuggets, fish floss, and fish sausages (Suwarti *et al*., 2015). Processed Product Diversification can increase benefits and added value, reduce damage and losses in employment providers, and increase people's economic income (Suhubawa & Ustadi, 2014).

Tablasupa Village is located in Depapre District, Jayapura Regency, Papua Province. Tablasupa Village is a fairly developed village in Jayapura Regency compared to other villages. Tablasupa Village has a Home Food Industry (IRTP) which is run by women in

business groups. The business being run is a fish product diversification business. This business has been in development for approximately two years.

Indonesia is one of the countries in Southeast Asia that has a low level of food quality. Low behavior of food handlers in implementing good food processing methods (CPPB) can increase the risk of decreasing the quality of the food produced, thereby causing the risk of causing health problems such as diarrhea, worms or food poisoning.

Home Industry or commonly referred to as IRT is a food company that has a place of business in a residence with manual to semi-automatic food processing equipment (Komala etal., 2017). The household food industry generally concentrates activities in a particular family home and employees usually live not far from the production house, because geographically and psychologically their relationship is very close (business owner and employee), making it possible to establish communication very easily (Nurmiati, 2019). Home food industries that do not meet health requirements will have an impact on the quality of the food products produced. Based on the results of the 2017 survey, there were 8 (20%) of 40 facilities and the 2018 survey there were 5 (9%) home industry facilities that did not meet health requirements, where the facilities and infrastructure were no longer suitable for use, therefore it was necessary to monitor the home industry. food ladder periodically and continuously, so that IRTP managers can always ensure that their industry remains safe and maintains sanitation (Nurmiati, 2019). In the context of food production and distribution, Article 43 of Government Regulation Number 28 of 2004 concerning Food Safety, Quality and Nutrition mandates that processed food produced by home industries must have a Home Industry Food Production Certificate (SPP-PIRT) issued by the regent/mayor and the Head of the POM Agency determine the guidelines for giving (Regulation of the Head of BPOM). On the other hand, the government is obliged to increase the competitiveness of home industrial food products by increasing awareness and motivation of producers regarding the importance of hygienic food processing by always paying attention to the condition and quality of clean water, sanitation and waste produced from these businesses (Nurmiati, 2019).

Based on the problems above, it is necessary to carry out research aimed at finding out Sanitation and Hygiene in Home Industry (IRT) Fish Nugget Processing in Tablasupa Village, Depapre District, Jayapura Regency, Papua.

METHODS

This research was conducted in January-March 2024 in Tablasupa Village, Depapre District, Jayapura Regency, Papua. The tools and materials used in this research are stationery for writing, questionnaires for interviewing sources (business actors) and cameras for documentation. The procedure in this research is as follows.

1. Initial survey to determine location or sources.
2. Determining sources.
3. Interviews with resource persons (business actors) using a questionnaire.
4. Direct observation of the process of making fish nuggets.

Data obtained from the field is presented in the form of flow diagrams and pictures and analyzed descriptively.

RESULT AND DISCUSSION

The Home Food Industry (IRTP) fish nugget business is located in Tablasupa Village, Depapre District, Jayapura Regency, Papua. This fish nugget business is still on a home industry scale where the processing is carried out by groups of village women consisting of 4-6 people in one group. The raw material used in processing fish nuggets is mackerel.

Raw materials are obtained from retailers and directly from fishermen. Apart from the raw material in the form of fish, this business also requires several ingredients such as tapioca flour, wheat flour, eggs, vegetables, salt, mushroom stock, breadcrumbs, cooking oil and clean water. The equipment used during the process of making fish nuggets includes a basin, knife, cool box and cutting board, copper, scales, stove, stewing pan, tarpan, spatula and baking paper.

The production place or production house for this fish nugget business is still very simple. Semi-permanent building, building pillars made of wood, roof made of tin and walls made of gaba-gaba (sago fronds). Based on the results of observations in the field, a number of problems were found in the fish nugget production process, namely:

Location and Production Environment

The location and production environment is above the sea so it can become a source of pollution for the marine environment if production waste is dumped directly into the waters. The environment around the IRTP must be far from sources of environmental pollution such as livestock pens, rubbish dumps and waste water reservoirs. This results in the process of food contamination and cross-contamination of the food produced and environmental health problems (Nurmiati, 2019). If the river water used is contaminated by E. coli or chemical contamination such as detergent, it is possible that the well water used is also contaminated (Ainezzahira et al., 2019).

Buildings and Facilities

Buildings and facilities do not meet standards because they are still semi-permanent, there are still gaps in the boarded walls of the house which can allow sources of contaminants such as bacteria and viruses to enter from the environment. Apart from that, it is not yet equipped with ceiling or roof of the house. IRTP whose location and IRTP production environment are not well maintained, dirty and dusty, so this can have an impact on the quality and food safety of the food products produced. As a result of food contamination during production due to unkempt, dirty and dusty locations, food production that is consumed can cause various diseases or health problems (Nurmiati, 2019). The condition of ventilation, doors and windows that are not well maintained, look dirty and dusty will cause the air and light in the production room to become less clean and damp, it will also affect the quality of food production and even threaten the health of IRTP employees or workers. Dirty wall conditions can cause cross-contamination of food products. This is very dangerous for people who consume food that has been contaminated (Nurmiati, 2019). The IRTP owner must maintain cleanliness and maintain the condition of the production room by keeping the walls always clean from dust, slime and other dirt. Ceilings should be designed properly to prevent dust buildup, mold growth, peeling, and nesting of pests. The ceiling should always be clean from dust and cobwebs. The roof must be made of materials that are easy to clean and have a simple design to prevent dust buildup, mold growth, peeling, and nesting of pests (Nurmiati, 2019).

Figure 1. Building of fish nugget production house for women from Tablasupa Village

Water Supply or Water Supply Facilities

Water supply or water supply facilities are still limited, so the process of cleaning the tools used during production is still not very clean. Water is the most important element for good food processing. Water is very important in the kitchen because it is not only used for cleaning and sanitation purposes, but is also needed during product handling and processing (Ainezzahira et al., 2019). Water is a good solvent, various substances can easily dissolve in water, including chemical elements, such as iron, lime, mineral salts (Yulianto & Nurcholis, 2015).

The water used for the production process must be clean and preferably in sufficient quantities to meet all production process needs. You can use hot water to clean certain equipment, especially useful for dissolving grease residues and for disinfection purposes, if necessary (BPOM Head Regulation). In general, there are three main water quality criteria that must be considered, namely: first physical criteria, second chemical criteria, and finally microbiological criteria. Physical criteria include smell, color, taste, presence of sediment, turbidity which can be observed organoleptically, namely by looking and tasting (Yulianto & Nurcholis, 2015).

Figure 2. Process for Cleaning Raw Materials and Production Equipment

Employee Health and Hygiene

Employee Health and Hygiene, there are still employees who are sick such as flu and coughs during the production process. In the regulation of the Minister of Industry of the Republic of Indonesia Number 75/MIND/PER/7/2010 concerning Guidelines for Good Processed Food Production Methods (CPPOB) it is stated that the general provisions regarding (Ministry of Industry of the Republic of Indonesia, 2010) good employee hygiene and health will provide a guarantee that workers those in direct or indirect contact with processed food do not contaminate the product (Ardiati & Septa, 2018). Law

No. 36 of 2009 concerning Health (Health Law) regulates food and drink safety in Part Sixteen of Chapter VI which regulates Health Efforts.

The makers of the Health Law consider that food and drink safety is an important part of health efforts. That's why Articles 109 to 112 regulate the principles of food and drink safety. In article 111 of Law no. 36 of 2009 concerning Health further emphasizes that (Regulation of the Head of BPOM): 1) Food and drinks used by the public must be based on health standards and/or requirements. 2) Food and drinks can only be distributed after obtaining a distribution permit in accordance with statutory provisions. Thus, the Health Law firmly stipulates that food and drink can only be distributed after obtaining a distribution permit in accordance with the provisions of statutory regulations.

Cleaning and Sanitation Methods in Food Production-Household Industry

Cleaning and sanitation in production houses in Tablasupa Village is still not in accordance with the standards that should be applied in a home industry. The cleaning process is still limited to cleaning the floor by sweeping.

Cleaning and Sanitation procedures should be carried out using physical processes (brushing, spraying with pressurized water or vacuum suction), chemical processes (soap or detergent) or a combination of physical and chemical processes to remove dirt and layers of microorganisms from the environment, buildings, equipment. The Hygiene and Sanitation Program should ensure that all parts of the production site are clean, including washing cleaning tools. The Hygiene and Sanitation Program should be carried out periodically and monitored for accuracy and effectiveness and if necessary, recorded (Regulation of the Head of BPOM). The water supply used is well water with a pump located behind the house. The water used is colorless and has no odor (Rezki, 2020). Cleaning/washing can be done physically such as with a brush or chemically such as with soap/detergent or a combination of both. Disinfection should be carried out using chlorine according to the recommended instructions. Cleaning/washing and disinfecting production equipment should be carried out regularly. It is best if there is an employee who is responsible for cleaning/washing and disinfecting activities (Rezki, 2020).

CONCLUSSION AND SUGGESTION

From the research results, it can be concluded that the process of making fish nuggets carried out by women from the Home Food Industry (IRTP) business group in Tablasupa Village does not meet sanitation and hygiene standards both in terms of infrastructure and employees or workers.

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