

Traders' Awareness Of The Safety Of Fresh Food Of Plant Origin At the Lakessi Market, Parepare City, South Sulawesi

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Abstract

*This study aims to describe the level of awareness of traders on the safety of fresh food of plant origin (PSAT) at the Lakessi Market in Parepare City, focusing on the commodities of shallots (*Allium ascalonicum* L.) and red chili peppers (*Capsicum annum* L.) on the importance of food safety for public health and product quality. The research method uses a qualitative descriptive approach through observation, in-depth interviews, and documentation of traders and the Parepare City Food Security Office. The results of the study showed that most merchants assess the feasibility of a product only from visual aspects such as color and texture, without considering the risk of chemical or biological contamination. Prevention efforts are carried out through manual sorting and arranging products on the table so that they do not come into direct contact with the floor, but the condition of the market that is muddy, dusty, and crowded with visitors remains a big challenge. The Food Security Agency has conducted field inspections and laboratory tests of red chili samples, which showed pesticide residues, although testing is still qualitative. Collaboration between traders and local governments is the key in ensuring safe, healthy, and quality food reaches consumers, while increasing the competitiveness of traditional market products.*



Keywords: PSAT, Trader awareness, Food safety, Markets Traditional

INTRODUCTION

Food safety is one of the important aspects that determine the quality of life of the community. Safe food not only has an impact on consumer health, but also on trade sustainability and market confidence. Fresh foods of plant origin, such as vegetables, fruits, and tubers have a big role in meeting people's nutritional needs, but their perishable and contaminated nature makes them vulnerable to various biological, chemical, and physical hazards. Traditional markets, including the Lakessi Market in Parepare City, are the main distribution centers of fresh food for the community. The buying and selling activities that take place every day involve direct interaction between traders, buyers, and the surrounding environment. Hygiene conditions, post-harvest handling, and traders' knowledge of food safety practices are key factors that affect the quality of products sold. Food is the most important basic human need and its fulfillment is also part of human rights. The protection of the community from unsafe food circulation is a guarantee that must be obtained by the public as consumers. Food is everything that comes from biological sources, both plant and animal, that humans consume to meet nutritional needs, maintain life, and improve health and well-being. Food can be in the form of raw materials, semi-finished materials, or processed products that are ready to be consumed. Based on the source, food is divided into plant-based foods, such as vegetables, fruits, seeds, and tubers, as well as animal foods of animal origin, such as meat, fish, eggs, and milk. In addition, food can also be grouped based on the level of processing, namely fresh food, processed food, and ready-to-eat food (Lestari. T. R. P 2020).

Traders' awareness of fresh food safety is very important, considering that they have a direct role in ensuring that the products marketed remain fit for consumption. However, the reality is that there are still often unhygienic handling practices, the use of containers that do not meet standards, and the lack of application of sanitation and hygiene principles. This has the potential to increase the risk of contamination that can cause health problems, such as food poisoning and foodborne diseases. The government and related agencies have made efforts to raise food safety awareness through socialization and training, but its effectiveness depends heavily on the extent to which traders understand and apply the principles in their daily activities. Therefore, it is important to conduct a study on the level of awareness of traders in the Lakessi Market, so that it can be the basis for the formulation of a more targeted coaching and supervision strategy.

Fresh foods of plant origin, such as vegetables and fruits, are an important part of a healthy and nutritious diet. According to the World Health Organization, "Adequate



consumption of fruits and vegetables can reduce the risk of non-communicable diseases." Fresh food not only provides the nutrients needed by the body, but also plays a role in the prevention of various diseases, including heart disease, diabetes, and some types of cancer (WHO 2021). Fresh food is food that has not undergone processing that can be consumed directly and/or become raw materials for food processing. However, despite its many benefits, fresh food also faces various challenges related to safety and quality. Food contamination can occur at various stages, from production to distribution (FAO 2022).

Red chili pepper (*Capsicum annum L.*) and shallots (*Allium ascalonicum L.*) are two types of fresh food of plant origin that occupy a strategic position in household consumption patterns in Indonesia. These two horticultural commodities not only serve as food supplements, but have become a key element in most traditional cuisines, making them an important component of the national food security system. Based on data from the Central Statistics Agency (BPS), the level of household consumption of these two commodities is relatively high. In 2023, the average consumption of shallots was recorded at 2.86 kilograms per capita per year (around 0.055 kg per week), while large red chili peppers reached 2.3 kilograms per capita per year, or around 0.045 kg per week (BPS, 2023). The high consumption rate shows that red chili peppers and shallots have a high level of affordability and needs in people's daily lives. In this regard, attention to the safety aspects and the desire for food consumption in these two commodities is very important, especially in the context of potential contamination of pesticide residues that can pose long-term public health risks.

Setiawan et al. It notes that "Approximately 600 million people worldwide experience foodborne illnesses each year, with the majority of cases linked to fresh food." This shows that strict and systematic supervision is needed to ensure food safety (Setiawan et al. 2023). Fresh Food Safety of Plant Origin, hereinafter referred to as PSAT Safety, is the conditions and efforts necessary to prevent PSAT from possible biological, chemical and other contaminants that can interfere, harm and endanger human health and do not contradict the religion, beliefs, and culture of the community so that it is safe for consumption (Ministry of Agriculture of the Republic of Indonesia, 2018). Food safety is important and a prerequisite for public health development efforts. Food safety not only plays a role in preventing foodborne diseases, but also in ensuring that the food consumed has decent quality and sufficient nutritional value to support people's welfare. The implementation of food safety aims to enable the state to provide protection to the people to consume food that is safe for health (Government Regulation 2019). Food safety not only serves to protect public health, but also plays a role in maintaining the ecosystem of the agribusiness sector, especially in the production and distribution system of fresh food.

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Traditional markets are part of the agribusiness supply chain that connects farmers, collectors, and traders with end consumers.

Regulation Minister Agriculture Republic Indonesia Number 53/Permentan/KR.040/12/2018 regulates the Safety and Quality of Fresh Food of Plant Origin. The safety requirements of the PSAT include not containing biological, chemical, and other contaminants that exceed the threshold and not using auxiliary materials that are prohibited from use. PSAT safety can be obtained through the application of the basic requirements of Good Agricultural Practices (GAP), Good Handling Practices (GHP), Good Manufacturing Practices (GMP), Good Distributing Practices (GDP) and Good Retailing Practices (GRP) (Permentan, 2018). In addition, poor post-harvest handling, such as the use of unhygienic containers, inappropriate product mixing, and low cooling systems in transportation, can lead to food contamination before it reaches consumers. Distribution processes that do not run well also have the potential to decrease causing food mutations, so that products sold in the market are no longer in accordance with the expected food safety standards. One of the key components that is often overlooked in ensuring food safety is the awareness of food business actors, especially traders, on the importance of maintaining food safety in their daily activities.

Merchant awareness of the importance of food safety greatly determines how food products are treated, stored, and served to buyers. Traders who have a good understanding and concern for food safety tend to implement more hygienic practices, such as keeping the point of sale clean, choosing fresh and consumable products, and avoiding the use of harmful ingredients. On the other hand, traders who are less aware of the potential dangers of unsafe food tend to ignore these things. Lakessi Market in Parepare City is one of the traditional markets that plays an important role in the distribution of fresh food of plant origin from various regions such as Parepare and surrounding areas. Lakessi Market functions as a regional market that supplies goods to other markets in Parepare City, especially vegetables and fruits. These vegetables and fruits generally come from outside the city of Parepare (Panjaitan et al., 2021). As a market with a high volume of transactions, the quality and safety of the food sold at Lakessi Market is highly dependent on the behavior and awareness of traders. Unfortunately, based on initial observations, the lack of awareness of traders on food safety of plant origin is a big challenge in efforts to maintain food safety in traditional markets. Traders usually only focus on the economic aspect without understanding that food safety also has a direct impact on the health of consumers and the sustainability of their businesses.

The problem faced by PSAT business actors in the Lakessi market is the lack of attention to the safety and quality of fresh food of plant origin, lack of awareness of the safety

of fresh pagan food of plant origin can lead to the circulation of food contaminated with harmful chemicals, contaminated with pathogenic microorganisms, or does not meet the desired quality standards. Based on this background, several basic questions are asked in this study (1) What is the level of awareness of traders towards the safety of fresh food of plant origin (PSAT) at the Lakessi Market, Parepare City? (2) What are the preventive measures carried out to maintain the safety of the PSAT at the Lakessi Market in Parepare City? These questions are the basis for exploration to further understand the dynamics of traditional markets in maintaining the safety of fresh food of plant origin at the merchant level. This study aims to comprehensively describe and analyze the level of awareness of traders towards the safety of fresh food of plant origin at the Lakessi Market in Parepare City, as well as identify preventive efforts carried out to maintain the safety of fresh food in the market. The findings of this study are expected to be an academic contribution as well as a basis for policy formulation in the development of fresh food safety systems in traditional markets, as well as a source of practical knowledge for traders, readers, and other researchers who want to conduct further studies on food safety and quality.

METHODOLOGY

This study uses a qualitative descriptive approach that focuses on the level of traders' awareness of the safety of fresh food of plant origin (PSAT) at the Lakessi Central Market, Parepare City. This research is based on the consideration that Lakessi Market is the main traditional market and trade center in the city of Parepare, so it can provide relevant insights into the safety of the PSAT at the merchant level. Data was collected through a combination of observation, in-depth interviews, and documentation. Observations are carried out directly to observe the safety conditions of fresh food in the market, including the practices of handling, storage, and cleanliness of traders' stalls. Interviews were conducted with fresh food traders, and the Parepare City Food Security Office. Documentation is carried out to collect regulations, as well as photos of market conditions as supporting data. The purposive sampling approach was used to identify key informants that were relevant to the focus of the study (Sugiyono, 2017). The research informants consisted of 3 fresh food traders of plant origin who have been actively selling for at least two years, traders who are directly involved in trade activities starting from the procurement process (purchasing from suppliers), storage, to handling and selling to consumers, so that they are considered to understand the processes that affect food safety. The informants include Pak Sahar, Selling for 3 years, PSAT sales including shallots and red chilies, Pak Hendra, Selling 3.5 years PSAT sales including shallots and red chilies, Ibu Nurfia, selling for 2 years, PSAT sales including shallots and red chilies. The selection of the 3 informants was based on the criteria used,

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using purposive sampling techniques. and the Parepare City Food Security Office, the Diversity, Consumption and Food Safety division which is involved in food safety supervision at the Lakessi Market. To analyze the data, the researcher used thematic analysis techniques that included data reduction, data presentation, and drawing conclusions based on key themes such as the level of awareness of traders and efforts to prevent the safety of Fresh Food of plant origin, in this case Shallots and Shallets.

RESULTS AND DISCUSSION

The shallot and red chili commodity is part of the Fresh Food of Plant Origin (PSAT) which has an important role in the horticultural market, especially in the Lakessi Market in Parepare City. As perishable products with high economic value, these two commodities require special attention to food safety aspects. In the context of agribusiness, traders' awareness of product safety not only affects the quality and feasibility of consumption, but also affects distribution efficiency, competitiveness, and business sustainability. Field findings show that most traders have not fully understood the concept of food safety. Their perception is limited to visual indicators such as freshness, color, and non-rot, without taking into account the possibility of contamination of pesticide residues or other harmful chemicals. For example, Sahar said that *"Anyway, if the chili is still hard red, it can be sold on deck"* indicates that the assessment of the feasibility of the product only relies on physical appearances without knowledge of the content of harmful ingredients (Informant: Sahar, 2025). The same thing was also expressed by Mrs. Nurfia who said, *"I don't know too much about the deck, the important thing is not to just rot,"* which indicates that the understanding of food safety in shallots and red chili peppers is still minimal and does not include chemical aspects such as pesticide residues, formalin, or other additives (Informant: Mrs. Nurfia, 2025).

Furthermore, when asked about government regulations related to food safety, Mr. Hendra said *"less taumi is a deck about the regulations on vegetables that can be sold"* (Informant: Mr. Hendra, 2025). This indicates the lack of socialization and formal education received by traders regarding food safety regulations, which should be the foundation in carrying out the practice of handling and selling fresh food. If traders have a limited understanding of food safety aspects, especially shallots and red chilies, then it can have a negative impact on the quality and safety of shallot commodities distributed in the supply chain. This ignorance has the potential to lead to the inability of traders to guarantee that the products sold meet consumption safety standards. As a result, the risk of contamination, product damage, and even the potential for the spread of disease through these commodities

is higher. In addition, a decline in consumer confidence in products can disrupt the efficiency of the marketing process and end the supply chain as a whole (Nabila et al. 2023).

Based on the results of the interviews, some traders stated that food safety is more the responsibility of producers or suppliers, not retail traders. This view reflects a low sense of responsibility for the quality and safety of the products they sell directly to consumers. When asked about their attitude towards the sale of products that contain harmful or unsuitable ingredients for consumption, Sahar stated, *"It's not good, but if it doesn't sell, it's also a loss"* (Informant: Sahar, 2025). This phrase suggests that although traders understand the risks of selling unsafe products, the decision to keep selling them is based on economic considerations and potential business losses. These findings show that there is a gap in understanding the role of traders in maintaining the safety of fresh food of plant origin (PSAT). Attitudes that consider food safety as the responsibility of producers or suppliers indicate the low internalization of agribusiness ethics among retail traders. In fact, merchants have an important role as an end point for distribution before the product reaches consumers. This low sense of responsibility can be caused by the lack of socialization of food safety regulations, lack of technical training, and weak supervision of sales behavior in traditional markets. This condition has the potential to worsen the food safety risk chain, because traders who should be the last filter do not carry out adequate quality control.

Economic considerations expressed by informants, such as concerns about loss if products are not sold, are also a driving factor for the practice of selling products that are not fit for consumption. This phenomenon reflects a dilemma that micro-entrepreneurs often face in traditional markets, where short-term profit orientation often overlooks the long-term health impact on consumers. This practice not only endangers consumers, but also has the potential to lower market confidence in the commodities being sold, ultimately harming the traders themselves. Therefore, a coaching approach is needed that not only emphasizes the technical aspects of food safety, but also provides a long-term economic understanding that maintaining product quality can increase consumer loyalty, expand market access, and strengthen business competitiveness.

In addition, most do not feel the need to provide information to consumers regarding the origin or process of handling the product. The delivery of complete product information, such as safety labels, pesticide residue test results, and PSAT certification, not only increases consumer confidence in food quality and safety, but also contributes to the selling value of products, strengthens consumer loyalty, and supports business efficiency and sustainability in the agribusiness supply chain (Mufidah et al., 2023). Therefore, red chili and onion products from the traditional market will be difficult to compete with products from the

modern market that have been equipped with food safety labels or have gone through residue testing. This low proactive attitude also shows that agribusiness ethics are not firmly embedded among traders. Indifference to food safety will ultimately have an impact on consumer confidence and narrow traders' opportunities to access a wider and high-value market (Irmayani et al., 2022).

The results of observations show that the post-harvest handling of red chili peppers and shallots is still not in accordance with hygiene standards. Products are usually placed directly on the floor with a tarpaulin floor, mixed between damaged and still marketable, and not adequately ventilated for storage. This triggers the acceleration of the decay process and cross-contamination which has a negative impact on product quality. The behavior of traders in handling red chili peppers and shallots in general cannot be recommended as traders who apply hygiene principles because the majority of traders still trade and sell red chili and onion food products without paying attention to food safety standards. There are traders who have tried to implement better practices in maintaining the quality of red chili and onion food products sold, such as using mats as a medium for product placement, maintaining the cleanliness of stalls and conducting manual sorting by separating food products that are not suitable for sale. Post-harvest handling that is carried out optimally has a crucial contribution in maintaining the quality of Fresh Food products, especially vegetables. In addition, good post-harvest handling also has a direct effect on extending the shelf life and increasing the economic value of the commodity. On the other hand, post-harvest management also aims to create added value that has an impact on increasing farmers' income. Therefore, an efficient and appropriate post-harvest strategy is a fundamental aspect in strengthening the sustainability of the agribusiness system and increasing product competitiveness in both national and international markets (Fathnur et al., 2024). Traders who have a high awareness of food safety tend to be more selective in selling products, maintaining the cleanliness of the place of business, and establishing communication with suppliers.

In general, traders' awareness of the safety of PSAT commodities, especially red chili peppers and shallots, at the Lakessi Market is still relatively low, both in terms of knowledge, attitudes, and practices. This condition has a negative impact on product quality, supply chain efficiency, economic value of commodities, and the sustainability of traders' businesses. Therefore, interventions in the form of education, technical assistance, and institutional policies that encourage traders to become an integral part of a safe, efficient, and highly competitive agribusiness system are needed. Traders at Lakessi Market make preventive efforts by manually sorting shallots and red chili peppers before selling them to separate products that have been damaged or decayed. However, the observation results

show that there are still shallots and red chili peppers that are slightly rotten and have black spots still on display in traders' stalls, so that they have the potential to reduce quality and can be a source of cross-contamination in other products that are still good. In addition, traders try to maintain food safety by storing and arranging products on wooden tables so that they do not come into direct contact with the market floor. However, the conditions of this arrangement are still diverse, there are traders who use plastic mats or sacks as a coating, while some others do not use mats at all. The condition of the market that is muddy, dusty, and very crowded is also a challenge in maintaining the cleanliness and safety of fresh food during the buying and selling process.

The Parepare City Food Security Office has carried out supervision with direct inspections to the field to check the condition of fresh food sold by traders. This inspection includes checking the cleanliness of the stalls, product conditions, and how to arrange fresh food carried out by traders. Through this activity, the agency seeks to ensure that traders maintain cleanliness and do not sell fresh food that has been damaged or contaminated. In practice, laboratory testing of residue content has so far focused on red chili, as one of the commodities with a high level of vulnerability to pesticide use. This test uses a pesticide residue test kit, namely the pesticide test kit/pesticide detection kit. Based on the results of the latest laboratory tests, samples of red chili taken from the market showed positive results containing pesticide residues. These findings reinforce concerns about potential chemical contamination in fresh food products, while emphasizing the importance of strengthening food surveillance and safety systems at the market level (Hertanto et al., 2019). Nonetheless, shallots and other PSAT commodities are also part of routine surveillance, either through visual inspections, product source tracing, and distribution monitoring. This is done to provide a comprehensive overview of the safety conditions of fresh food circulating in the local market. Furthermore, the agency said that the laboratory tests currently carried out are still qualitative, namely only detecting the presence or absence of specific content in the sample, not yet reaching the residue quantification stage to determine whether it exceeds the maximum residue threshold (BMR) according to national regulations. This is due to the limited laboratory facilities and infrastructure available.

Based on the results of observations and information from the Parepare City Food Security Office, it can be concluded that prevention efforts carried out by traders and the Parepare City Food Security Office are already underway but still need improvement. Traders have tried to maintain the safety of the PSAT through manual sorting and arranging products on the table, although there are still products that are not suitable for sale and muddy and dusty market conditions are a challenge to the hygiene of fresh food. Meanwhile,

the agency has been actively conducting direct inspections and laboratory testing, but its effectiveness still depends heavily on the compliance of traders in implementing food hygiene and safety in the field. Cooperation between traders and local governments is important in maintaining the safety of fresh food of plant origin at the Lakessi Market in Parepare City, so that people get safe, healthy, and quality food.

CONCLUSION

This study shows that the level of awareness of traders on the safety of fresh food of plant origin (PSAT) at the Lakessi Market, Parepare City, is still low. Traders only judge freshness based on color and texture without considering the risk of chemical contamination, and post-harvest handling practices are still unhygienic. Prevention efforts have been carried out through simple sorting by traders and supervision and testing of samples by the agency, but their implementation has not been optimal due to unhygienic market conditions and low awareness of traders on the importance of food safety.

It is necessary to increase the understanding and practice of traders related to food safety by maintaining the sanitation of stalls and good product handling. The Parepare City Food Security Office is expected to strengthen education and technical assistance to traders on an ongoing basis and increase supervision to encourage the consistent implementation of food safety. It is recommended to provide and develop more sophisticated detection tools to facilitate the identification process of fresh food, both chemical, biological and physical. Further research can explore the factors that influence traders' low awareness and evaluate the effectiveness of PSAT security enhancement programs in traditional markets.

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