



Analysis of the Manufacturing Process and Organoleptic Test of Salted Anchovy Fish in the Katapang Doyong Pangandaran

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJFAR/2023/v22i5582

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/99399>

Method Article

Received: 02/04/2023

Accepted: 22/05/2023

Published: 31/05/2023

ABSTRACT

The research is aimed at analyzing the production of both foreign and ORGANOLEPTIC quality subsidies produced in west Java, Indonesia. The research was carried out from 2023 to March 20, 2023. The research method used is survey. The research procedure takes place in two stages. The first takes into consideration the production of a saltwater anchovy product and the second stage tests the quality of the resulting salty teri product. An analysis of the manufacture of salty anchovies is made by observation of production places and interviews with workers and business owners.

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Organoleptic quality testing is done with suspension tests. The government has set the 2007 state budget at 8.25 percent for the first time in a row, he said. Data obtained is decrypted. According to research, the production of saltfish in pangandaran, west Java - Indonesia includes receiving raw materials, salting, washing, cleaning, and sorting. Recent surveys show more than 7 organoleptic values. According to SNI 2721-1:2009, the salty anchovies from the Mr. Nono's production house is already qualified because of the conditions for the quality and security of the salt-fish food for a minimum organoleptic value is 7.

Keywords: *Cultivator; observasi; organoleptic; salted teri; scoring.*

1. INTRODUCTION

Indonesia is one of the seaside countries whose territory is mostly ocean (Princess et al., 2018). This has given the fishing industry a lot of growth. The catch taken by the fishermen was large but could not usually be carried all the way to the market because of the limitations. To overcome this problem, some fishermen and fisherman cultivate it and preserve it from decaying. The purpose of its processing and preservation is to increase the value of more fish. According to Sa'adah [1], one of the many processing and preservation employed in Indonesia is the cultivator. This salting process can reduce the water level in the fish's body by reducing bacterial growth.

A variety of fish can be found in Indonesia, one such fish (*Stolephorus commersonii*). Anchovies are high economic value fish after kite fish, bloated, Javanese, flying and tongas [2]. Anchovies file chordata, Pisces class, malacopterygii order, genus *stolephorus*. Its body is either a fusiform or rather compressed to the side, on the side of its body a silvery white line extending from head to tail. The small, thin scales are extremely loose, the upper jaw bone extending up to a gill opening. Anchovies have high nutritional value. Anchovies are a source of calcium and protein [3].

Anchovies, like any other fish, are subject to decay. To inhibit the process of decomposition and at the same time increase its added value, the anchovies are widely treated as salty anchovies. Anchovies can become salty anchovies by land [4].

The processing of anchovies into salt fish is a traditional preserving procedure still common in countries, including Indonesia. Although the saltwater anchovies are highly prized by most

communities, it turns out the public knowledge of the safe and good salty fish for consumption is still lacking. Good salted anchovies have a color similar to fresh, unacidic or rancid fish, no stain spots, and no flaccid or firm [5].

The processing of salty anchovies in each area varies in stages in the process as well as in the distribution of salt concentrations. The Ningrum et al. [6], the concentration of salt used in the production of salt fish was crucial to the quality of the product it produced. Apart from the freshness of the ingredients, salt giving also affects the kinds of microbes that play a part in fermentation, it is one of the bacteriostatic ingredients for some bacteria including pathogens and bacteria that are disinfecting. Therefore, research is aimed at analyzing the production of salt byproduct and organoleptic quality produced in west Java, Indonesia. It is hoped that the results will be beneficial for governments or authorities to implement the development and quality of salty anchovies.

2. RESEARCH METHODS

The research was carried out from 2023 to March 20, 2023. The research method used is survey. The research procedure takes place in two stages. The first takes into consideration the production of a saltwater anchovy product and the second stage tests the quality of the resulting salty teri product. An analysis of the manufacture of salty anchovies is made by observation of production places and interviews with workers and business owners. Organoleptic quality testing is done with the suspension test of the salty consumer of anchovies who buy products from the Mr. Nono's production house. The scoring test format is on Table 1. The government has set the 2007 state budget at 8.25 percent for the first time in a row, he said. Data obtained is decrypted.

Table 1. Organoleptic quality

| Organoleptic Properties | Value |
|--|--------------|
| Appearance | |
| - Whole, clean, neat, luminous according to type, | 9 |
| - Whole, clean, less tidy, luminous by type. | 8 |
| - Intact, clean and slightly dull. | 7 |
| - Whole, less clean, a bit dull. | 6 |
| - Slight physical damage, not clean, some parts rusted. | 5 |
| - Slight physical damage, color has changed. | 4 |
| - Some are ruined, dirty. | 3 |
| - Crushed, very dirty, color changed from specific type. | 1 |
| Smell | |
| - Fragrant, type-specific, with no additional odors. | 9 |
| - Almost neutral - neutral, slight additional odor. | 8 |
| - Additional odor disturbing, not foul, slightly rancid | 7 |
| - Rancid, slightly musty, ammoniacalodor. | 6 |
| - Unpleasant, slightly foul, loud ammonia | 5 |
| - Rotten | 4 |
| Texture | |
| - Dense, compact, pliable, moderately dry | 9 |
| - Dense, compact, flexible, less dry. | 8 |
| - Too hard, not fragile | 7 |
| - Solid, not brittle | 6 |
| - Soft, wet, non-biodegradable. | 5 |
| - Dry, brittle, easy to decompose. | 4 |
| - Soft, brittle, easy to decompose. | 3 |
| - Soft, wet, easy to decompose. | 2 |
| - Wet, watery, clearly decomposed | 1 |
| Mold | |
| - None/not visible | 9 |
| - Present/visible | 1 |

Source: National Standardization Agency, (SNI 01-2346, 2006)

3. RESULTS AND DISCUSSION

3.1 An Overview of the Salted Anchovy Business

In the small medium business of fisheries, micro business is one of the main areas in which micro business is small and medium business. The business of these salty anchovies is still at the scale of the domestic industry where the processing was done by Mr. Nono himself and his family. The paralleling used was also very simple and could be obtained from the vicinity.

The raw materials used in the manufacture of these salted anchovies are obtained from direct fishing catches. In one day production, the anchovies used can be up to 60 pounds [100 kg] or can be more dependent on weather conditions during the pickup process. From 100 kg of wet anchovy to 35 kg of dried anchovy. In addition to the raw materials of anchovies in this industry, the tools used during the processing process

include tarpaulins for hanging out and broomsticks to separate and scrape out the attached dirt. This equipment was acquired in the saerah surrounding the production house.

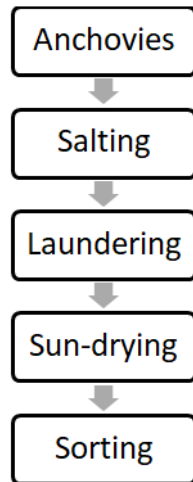


Picture 1. Mr. Nono's production house

3.2 Salted Anchovy Processing

The processing of salty anchovies carried out in the Mr. Nono's production house consisted of the

stages of receiving raw materials (anchovies), cultivating, washing, cleaning, and sorting. The order of processing processes can be seen in Picture 2.



Picture 2. Processing process of salted anchovies

Raw materials of anchovies for the preparation of salty anchovies are obtained directly from local fishermen's catch. If the raw materials of anchovies come from fishermen, the heads must be separated and discarded because of the sand that flows into the gills from the network or the catch of the fishermen. As for the anchovy that comes from a harvester, its head doesn't need to be thrown away because Anchovies have cleared.



Picture 3. Anchovies

This is followed by the salting process. This cultivator is done directly by sowing and mixing powdered salt with the anchovies evenly. How much salt is used as much as 25 kg (25 lb) for 1 anchovy. This process causes the salt to melt so

that anchovies can melt no water in order to dissolve the salt. The cultivated process takes about one day. According to Supriadi et al. [7] salinity is done by throwing salt crystals on the surface of the fish and then being boiled for 15 minutes. Salt used is pure salt or crosanct salt. The ratio of anchovies to salt is 2:1, so for 1,000 kg of anchovy, salt is needed about 500 kg.

After being perked off for 1 day, the fully cultivated anchovies were washed once to minimize the amount of salt added to the anchovies. Then the washed anchovies were later set out to dry directly in the sun. They can do one hot day or up to two when the weather is less favorable. They do it directly in the field and they can use it waring during a little salty anchovies. The Marine factor (2022) states that for 8 to 10 hours depends on the weather for treatment. Then, during the treatment process, 2-3 embalming processes are used to make the anchovies dry evenly.



Picture 4. Salted anchovies



Picture 5. Salted anchovy sorting

After a small fish extraction is sorted before the fish is sold. Sorting of anchovies with other fish and dividing the salt anchovies into two sizes of the small and the large ones for marketing. The carp of the al. (2022) revealed that sores are separating anchovies from other mixed fish and continuing packaging.

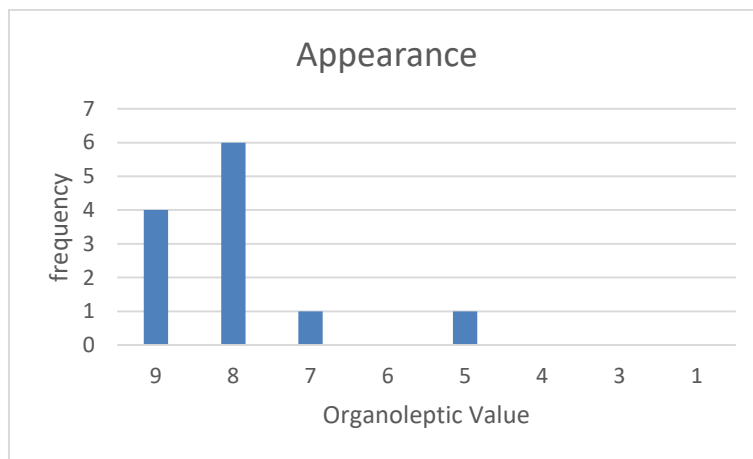
3.3 Organoleptic Test of Salted Anchovy Fish

The human sense can be used as a primary tool for measuring the receiving power of food as one of the tests humans often call organoleptic tests. Organoleptic or sensory testing has been in place since humans began to use their senses to assess the quality and safety of a food and drink [8]. Organoleptic is the first quality of the product known to both manufacturers and consumers. In the organoleptic trials of salted anchovies

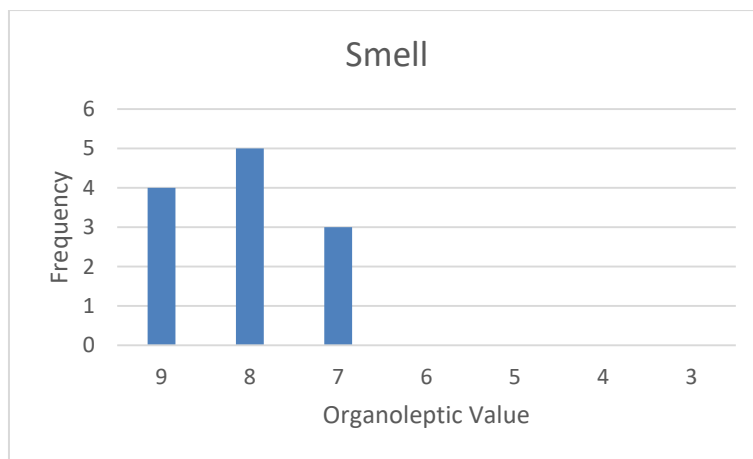
produced by the Mr. Nono's production house included the test of slop, smell, taste, consistency, and molds.

Testing the organoleptic anchovy quality test is done with the suspension test that refers to Table 1. Organoleptic observations are anchored to clings, smells, textures, and molds.

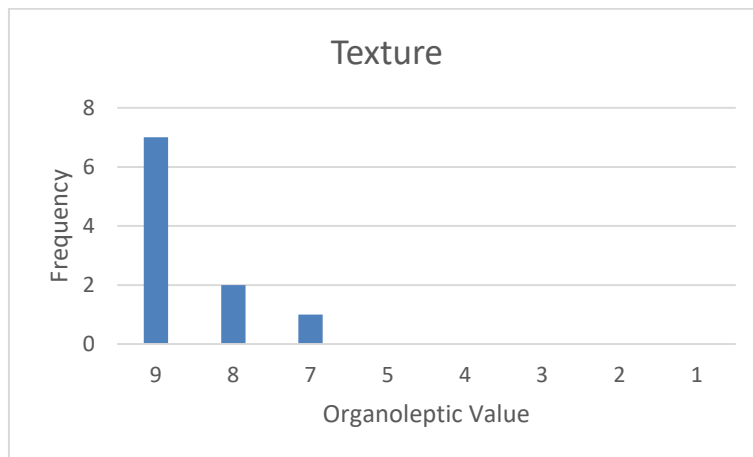
One that can be directly assessed by the recklessness that gives consideration to the selection or consuming of a product. Attached to the organoleptic test has specifications of shapes on the salty anchovies, and the color loss that the sense of sight can evaluate. Generally, fresh, clean, and luminous anchovy is present. Judging by Picture 6. Much of this salty anchovy organoleptic test is worth an 8 which means it has a full, clean, sloppy, flowery kind of light.



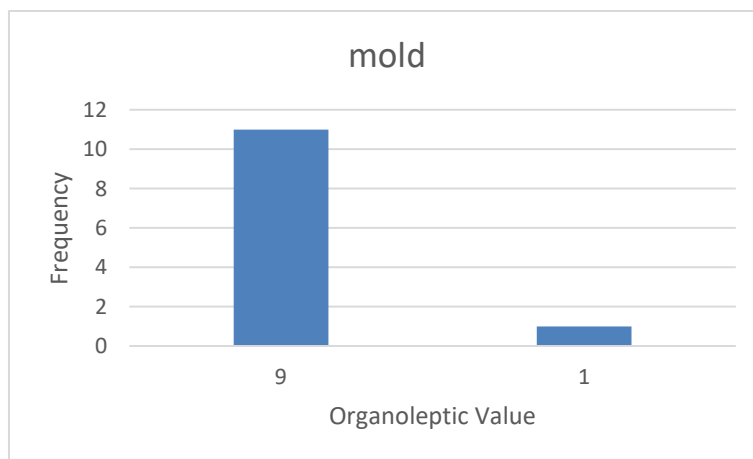
Picture 6. Appearance value results



Picture 7. Smell value results



Picture 8. Texture value results



Picture 9. Mold value

The distinctive smell of salty anchovies is one of its own attractions for the consumer. Generally, fresh fish have a higher organoleptic value than salted anchovies. Judging from Picture 7. Salted anchovies have the most abundant organoleptic test value: 8 with almost neutral characteristics, few additional odors.

Consistency in the organoleptic test is an assessment of the structural conditions in salted anchovies. In the old salty anchovies, drying and the amount of water can affect their consistency levels, the lower the amount of water produced from salted anchovy, the value of the product's consistency, the better. Judging from Picture 8. The resulting texture test was mostly 9, which is solid, compact, flexible, quite dry [9-13].

Shells or fungi that can cause offense to salt anchovies may be caused by raw materials that are used less fresh and have experienced

considerable storage. Judging by Picture 9. The fungal parameters in these salty anchovies have a value of 9 which means there is no/no residue on the salty anchovies, a sign that the raw materials used are fresh and properly processed.

4. CONCLUSION

The process of making salted anchovies in Pangandaran, West Java-Indoneisa includes receiving raw materials, salting, washing, drying and sorting. The resulting organoleptic anchovies on the scent have a value of 8 with almost neutral characteristics, a little extra odour, it has a 9 on the denser, compact, flexible, and a 9 on the platype which means there are no additional shells in the salty anchovies. These organolpetic tests showed that the salted anchovy produced by Mr. Nono's production house was more than 7, meaning it had already filled up.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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