

# **SENSORY CHARACTERISTICS AND ACCEPTABILITY OF GOBY SARDINES IN TOMATO SAUCE**



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# DIFFERENT SPECIES OF GOBY



# Rationale

- Gobies are fishes of the family Gobiidae, one of the largest fish families comprising more than 2,000 species in more than 200 genera. Most of them are relatively small, typically less than 10 cm (3.9 in) in length. Gobies include some of the smallest vertebrates in the world, such as trimmatomnanus and pandakapygmaea, which are less than 1 cm ( $\frac{3}{8}$  in) long when fully grown.







- Gobies are spread all over the world in tropical and temperate near shore-marine, brackish and freshwater environments. Their range extends from the Old World coral reefs to the seas of the New World, and includes the rivers and near-shore habitats of Europe and Asia. Gobies are very tasty and because of their small size, they are normally eaten whole, including the bones, thus increasing the nutritional value significantly. The unappealing color of gobies may be the reason why it is slowly but finally recognized as an important fish species of aquaculture.



- In other parts of the world like western countries, sardines are usually from big fishes. This is because they have large production of big and small fishes that may serve as their stock when the demand increases. This is slightly in contrast to the situation here in the Philippines. However, our country is blessed with unpopular fish resources which can be utilized as a food source. One of those is the gobies which belong to the family Gobiidae. Gobies are commonly seen in freshwater environments such as streams, rivers and ponds where they perform essential ecological functions (Havlik and Sauer, 2010). These are considered to have high nutritional value because of the presence of different nutrients and minerals in their body (DOST, 1997).



- This study however, was carried out to determine the quality and acceptability of goby fish in tomato sauce as main ingredient for sardines.



# Objectives of the Study



1. Develop sardines utilizing goby fish with tomato sauce.



2. Determine the quality of goby sardines with 4 Cups Tomato Sauce , 2 Cups Tomato Sauce and 1 Cup Tomato Sauce in every kilogram of Goby Fish to the taster respondents along the following:

2.1 Appearance;

2.2 Texture;

2.3 Color;

2.4 Taste; and

2.5 Aroma



3. Determine the significant differences in the acceptability of different treatments.

# Materials



Ladle

Pressure cooker

Strainer

Measuring cups

Measuring spoons

Food weighing scale

Knife

Bowl

Plate



# Ingredients



INGREDIENTS	MEASUREMENTS
Goby fish	1 Kilo
Onions	2 Bulbs
Salt	5 Tbsp
black pepper	4 Pcs.
laurel leaves	6 Pcs.
Water	2 Cups
Tomato sauce	4 Cups 2 Cups 1 Cup

# *Ingredients of GOBY SARDINES IN TOMATO SAUCE*



Goby Fish



Onion



Tomato sauce



Black pepper



Laurel

# The schematic procedures of making Goby Sardines in Tomato Sauce



**Sorting**



**Washing**



**Draining**



**Pressure Cooking**



**Bottling**



# Different Treatments



- T0 (Canned Sardines)
- T1 4 Cups Tomato Sauce in 1 Kilogram Goby Fish



- T<sub>2</sub> - 2 Cups Tomato Sauce in 1 Kilogram Goby Fish



- T<sub>3</sub> - 1 Cups Tomato Sauce in 1 Kilogram Goby Fish

# GATHERING DATA



- A sensory evaluation was conducted by 60 sensory respondents to determine the general acceptability and quality of goby sardines in tomato sauce with different levels of tomato sauce in terms of appearance, texture, taste, aroma, and flavour. The coded samples were presented to each panel in random order. Score cards were designed for evaluation. The 9 point hedonic scale was used to determine the general acceptability of the product.

# Statistical Tools Used





# RESEARCH HIGHLIGHTS



Significant

Non  
Significant

Color

Aroma

Appearance

Texture

taste

# Conclusions



- Based from the results of the study, goby sardines in tomato sauce showed no significant differences in texture and taste versus the control.
- Goby sardines in tomato sauce were accepted by the panel of tasters.

# Recommendations



1. Preparation/ingredients of Goby sardines must include lemon grass to improve its aroma.



2. The product must be introduced to the community.



3. Goby Sardines process must be improved to make its quality acceptable.

4. Include shelf life testing of goby sardines in tomato sauce.





*Maraming Salamat Po!*

