

# Candy Cap Mango Mushroom Cupcake

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**Abstract** – For the past decades, there have been improvements in the mushroom industry, there have been expanding production capacities, developments in cultivation technologies, enhancements to final mushroom products, and utilization of mushrooms for environmental benefits. Be that as it may, there's a need for continuous improvement to keep up with the current trends and to continue to look for new and better opportunities to improve human lives. The challenge is to recognize openings such as expanding utilization capabilities with the increment in the world populace to aid in promoting human consumption. Further, this study aimed to determine the acceptability of the product, which is anchored on the developmental research design. Based on the result there is a high degree of acceptability of the product in terms of appearance, taste, texture, odor, and mouthfeel.

**Keywords** – Candy Cap, Developmental Research, *Mangifera Indica*, *Shiitake Fungus*,

## INTRODUCTION

Mushrooms are fungi that produce fleshy, spore-bearing fruiting bodies that grow above ground, commonly in woods, on soil, or on their feeding supply. It's the most well-known and researched edible forest product. The name "mushroom" has diverse meanings for different people in different countries. Since ancient times, mushrooms have aroused man's interest, and the Romans named them "food of gods." [1]

Mushrooms, which are the fruiting bodies of certain fungi, serve a critical role in forest ecosystems due to their unique capacity to break down wood, leaves, and other organic components while recycling nutrients back into the system. Pleurotus species are widely farmed over the world, mostly in Asia and Europe, due to their low-cost production methods and high biological efficiency. [2]

Mushrooms are utilized as therapeutic foods because their chemical makeup helps to avoid disorders including hypertension, hypercholesterolemia, atherosclerosis, and cancer. [3] Mushrooms are also consumed as foods and used as flavorings. They have a

distinct texture, scent, flavor, and aroma that distinguishes them from other food crops. [4]

Mechanical improvements within the mushroom industry in common have seen expanding generation capacities, developments in cultivation innovations, enhancements to final mushroom products, and utilization of mushrooms' common qualities for environmental benefits. In any case, there's continuously the ought to keep up current patterns and to proceed to look for out new possibilities. The challenge is to recognize possibilities such as expanding utilization capabilities with the increment in world populace and to require advantage of this by advancing the utilization of mushrooms.

The mushroom business in the Philippines is apparently a burgeoning business with enormous commercial potential in as much as it targets a basic need: food. The twelve most common varieties of mushrooms are Portobello mushrooms, cremini mushrooms, maitake mushrooms, button mushrooms, hedgehog mushrooms, morel mushrooms, shiitake mushrooms, porcini mushrooms, lobster mushrooms,

enoki mushrooms, chanterelle mushrooms, and clamshell mushroom.

The researcher utilized *Lentinula edodes*, often known as Shiitake Fungus, which is a mushroom native to East Asia and is regarded the leader of the mushroom family. It has been used for both culinary and medicinal uses in many Asian nations. Shiitake mushrooms are a popular fungus all around the world. They're praised for their delicious flavor and a variety of health advantages. The umami flavor of dried shiitakes is considerably stronger than that of fresh shiitakes. Shiitake mushrooms are a low-calorie mushroom that contains a variety of vitamins, minerals, and bioactive plant components. They also have a high fiber content, as well as B vitamins and minerals. Shiitake mushrooms are fungus that grow naturally on dying hardwood trees and are commonly consumed as vegetables.

Aside from mushrooms, the researcher also preferred to use mango ripe as the main ingredients of the candy cap mango mushroom cupcake. Aside from being a delicious fruit, the Philippine mango is a thriving commercial product. The abundance of mangoes in the Philippines, over a million metric tons produced yearly; and the demand for it abroad, latest export earnings totaling \$61 million; has developed mango production into a fast-growing industry.

Mango (*Mangifera indica* L.) is also referred to as the "King of Fruits" and "Indian National Fruit." Anacardiaceae is its family. The mango is native to the Himalayan foothills of north-east India and north-central Myanmar, and is thought to have originated in the Indo-Burma area. Mango is a popular tropical fruit that is readily available and farmed all over the world. Mangoes are becoming increasingly popular as a commercial fruit all over the world. The mango, while being a tropical fruit, thrives in semi-tropical climates. India has over a thousand mango varieties due to its long history of cultivation. Physical properties of the fruit, particularly the color of the skin and the shape and size of the fruit, are used to determine its quality. When fully developed, the fruit skin is smooth, thick, and yellow or greenish in color. Color, shape, size, and flavor should

all be preserved in newly developed kinds so that India may expand its market share in the worldwide market. [5]

Mangoes are growing economic importance all over the world and have risen to the top of the fruit market. Mango trees may reach amazing heights when given the right circumstances. It may grow to be 25 meters tall. The trees are typically evergreen and upright, with a huge drupe as its fruit. When fully developed, the fruit skin is smooth, thick, and yellow or greenish in color. Mango fruit matures quickly after fruit set, and may be harvested in 13 to 20 weeks from blooming, depending on the type and climate. [6]

The wonderful taste, flavor, appealing color, and high nutritional content of mango have earned it the title of "king of fruit." Wise selection and breeding procedures supported the domestication of mango with superior flavor, size, and nutritional features, earning it the title of "king of fruit." Sugars, carbs, lipids, vitamins, minerals, dietary fibers, antioxidants, tannins, polyphenols, pigments, and taste components all contribute to mango's high energy value. Each of them makes a different contribution depending on the level of ripeness, ripening, cultivation location, and, most crucially, cultivar type. The nutritional value and flavor of mangoes are a distinguishing feature of each cultivar, and are primarily influenced by a complex blend of substances viz. Proteins, carbohydrates, alkaloids, terpenoids, polyphenolic chemicals, flavonoids, and sulfur-containing compounds are among the substances found in plants. Mango fruit has a bright future in agriculture due to its excellent nutritional content and big number of bioactive chemicals. [3]

Candy cap mango mushroom cupcakes are baked and packaged in a single serve cupcake which is best for all seasons. It is a juicy and flavourful cupcake balanced with the taste of mushroom. Aside from its delicious taste, it is abundant with health benefits. These cupcakes are easy and enjoyable to make since most of the ingredients are readily available in the market.

Aside from nutritious taste, cupcakes are usually priced individually, the price per ounce for a cupcake is slightly more than the price per ounce of a cake.

## OBJECTIVES OF THE STUDY

The study aimed to develop a candy cap mushroom cupcake a product made up of mushroom and mango. Further, the study is also aimed at testing the acceptability of the product in terms of appearance, taste, texture, odor, and mouthfeel.

## MATERIALS AND METHODS

### Research Design

The study will employ developmental research in creating the product. This method is appropriate since the study will focus on product development. Developmental research is defined as the systematic study of designing, developing, and evaluating products that must meet criteria of internal consistency and effectiveness. Developmental research is particularly important in the field of hospitality management. The most common types of developmental research involve situations in which the product-development process is analyzed and described, and the final product is evaluated.

### Data Gathering Tools

The researcher will employ the following tools to gather data: Interviews for gathering the necessary requirement of the study. Library research to determine the necessary steps in developing the product. Survey questionnaire to evaluate the product.

### Respondents of the Study.

The study will include the following respondents: Culinary Experts and Housewives. The culinary experts and housewives will serve as evaluators of the product.

## RESULTS AND DISCUSSION

The product sensory evaluation used a five-point Likert scale ranging from 1-Not acceptable to 5 – Highly Acceptable. After the 10 culinary experts and 30 housewives evaluated the product in terms of

appearance, taste, texture, odor, and mouthfeel, the following results are presented and analyzed:

Table 1:  
Product Sensory Evaluation

Descriptor	Mean	Descriptive Rating
Appearance	4.56	Highly Acceptable
Taste	4.76	Highly Acceptable
Texture	4.52	Highly Acceptable
Odor	4.78	Highly Acceptable
Mouth feel	4.51	Highly Acceptable
Overall	4.63	Highly Acceptable

The data shows that the overall product sensory evaluation has a weighted mean of 4.63 which means that the product is highly acceptable in the taste of the culinary experts and housewives. Specifically, the products' appearance (4.56), taste (4.76), texture (4.52), odor (4.78) and mouth feel (4.51) are highly acceptable as well.

These findings imply that the product is highly acceptable in the taste of the culinary experts and housewives, in terms of appearance, texture, taste, odor, and mouthfeel.

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