

Product development and organolaptic evaluation of pumpkin seed

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The objective was present investigated was to “Product development and organolaptic evaluation of pumpkin seed” To develop pumpkin seed products like halwa, soup, pancake, migipag and namkeen. Pumpkin seed have a soft texture, and are easy to digest. Pumpkin seed are a high source of nutrients like zinc, sodium, potassium, magnesium, calcium, B vitamins, protein, fat and energy. They are also a very filling food. Pumpkin seed are considered useful in fight depression, promote sleep, diabetes and obesity. Can Help Lower High Cholesterol Level and Protect Against Heart Disease. The development products were given to the panel of 10 judges products were tested for flavour and tested for flavour and taste, body and texture, colour and appearance, overall acceptability. The organolaptic evaluation of products was done by using score card method (9-point hedonic scale). The result developed products halwa and soup (T₀) and (T₁) was highest average score for overall acceptability (T₁) Halwa and Soup 9, 8.3.

Key Words : Acceptability, Development, Investigation, Evaluation

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INTRODUCTION

Pumpkin seeds—also known as pepitas—are flat, dark green seeds. Some are encased in a yellow-white husk (often called the “shell”), although some varieties of pumpkins produce seeds without shells. Pumpkin seeds have a malleable, chewy texture and a subtly sweet, nutty flavor. While roasted pumpkins seeds are probably best known for their role as a perennial Halloween treat, these seeds are so delicious, and nutritious, that they can be enjoyed throughout the year. In many food markets, pepitas are available in all of the forms described above—raw and shelled, raw and unshelled, roasted and shelled, roasted and unshelled.

Pumpkin seeds have long been valued as a source of the mineral zinc, and the World Health Organization recommends their consumption as a good way of obtaining this nutrient. If you want to maximize the amount of zinc that you will be getting from your pumpkin seeds, we recommend that you consider purchasing them in unshelled form. Although recent have studies shown there to be little zinc in the shell itself (the shell is also called the seed coat or husk), there is a very thin layer directly beneath the shell called the endosperm envelope, and it is often pressed up very tightly against the shell.

Objectives :

- To standardise and develop the products by using pumpkin seeds.
- Organoleptic evaluation of developed products.

METHODOLOGY

The present investigation on product development

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and organoleptic evaluation of pumpkin seed” was carried out to standardize pumpkin seed and its products. The study was conducted in department of food and nutrition, Faculty of Home Science, Kamla Nehru Institute of Physical and Social Science, Sultanpur.

Justified, judicious and scientific methodological consideration is indispensable for any investigation to deduce meaningful interferences the objective of the study. The study design reflects to the logical manner in which units of the study are assessed and analyzed for the purpose of drawing generalizations. Thus, with the view of available resources, the best procedures for taking correct observation should be first sorted out in a logical manner so that unbiased interference can be down. This chapter delineates information pertaining to the research design and methodological step used for investigation. The research procedure has been distinctly described as under in following heads:

Procurement of material:

For the present investigation required material was purchased from the local market of Sultanpur city. The procuring was done in single.

Avoid variation compositional difference so that the quality difference should be ruled out.

Processing of raw material:

After procuring the material the processing is done by cleaning, roasting and grinding for the preparation of the product.

Development of pumpkin seed product:

Method of preparing the pumpkin seed *Halwa* :

Roasted and Grinding the pumpkin seed. Soak the yellow moong dal in enough water for 3 hours. Drain well and blend in a mixer to a coarse paste without using any water. Heat the ghee in non-stick kadhai, add the

Ingredients	Amount	
	Controlled	Experimental
Pumpkin seed(g)	-	120
Moong dal paste(g)	150	50
Ghee(g)	50	100
Sugar(g)	150	150
Almond	5-6	5-6
Cardamom powder	1/2tsp.	1/2tsp.
Cashew nut	5-6	5-6

yellow moong dal paste and cook on a medium flame for 25 minutes. Then mix the roasted and grinding pumpkin seed. Add the sugar, mix well and cook on a medium flame for 3 minutes, while stirring continuously. Add the cardamom powder, mix well and cook on a medium flame for 1 minute, while stirring continuously. Serve warm garnished with almond and cashew nut (Table A).

Giami *et al.* (2005) Study that Roasted pumpkin seed increases the extractable sodium and phosphorus. Iron content significantly decreased when seeds were roasted and it was found to be 17.36 mg/100g.

Method of preparing the pumpkin seed soup:

Combine the tomatoes, onion, garlic and 3 cup water in a pressure cooker, mix well and pressure cook for 3 whistles. Roasted and grinding the pumpkin seed. Allow the steam to escape before opening the lid. Cool the mixture completely and blend in a mixer till smooth. Transfer the mixture into deep non-stick pan, add the butter, Roasted and grinding pumpkin seed, salt and pepper, mix well cook on a medium flame for 3 to 4 minutes, while stirring occasionally. Serve hot garnished with coriander (Table B).

Ingredients	Amount	
	Control	Experimental
Pumpkin seed	-	80g
Chopped tomato(cup)	3cup	2cup
Chopped onion	-	-
Salt	To taste	To taste
Black paper	½ tbsp	½ tbsp
Butter	1 tbsp	1tbsp
Chopped coriander	-	2 tbsp
Garlic paste	½ tbsp	½ tbsp

Amoo *et al.* (2004) stated that proximate composition of the pumpkin powdered seed was oil 52.13±0.13%, protein 14.31±0.10%, moisture 3.08±0.09%, ash 3.60±0.15%, crude fibre 2.55±0.08% and carbohydrate 24.45±0.12%. The mineral composition of the seed was sodium 296.9 ppm, potassium 358.7 ppm, magnesium 348.7 ppm, calcium 294.7 ppm, phosphorus 2241.5 ppm, manganese 17.9 ppm, zinc 39.9 ppm, iron 42.7 ppm.

OBSERVATIONS AND ASSESSMENT

The data were collected on different aspects per

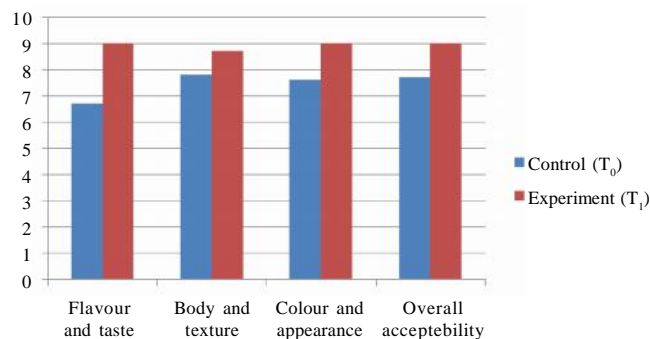


Fig. 1 : Mean overall acceptability of pumpkin seed *Halwa*

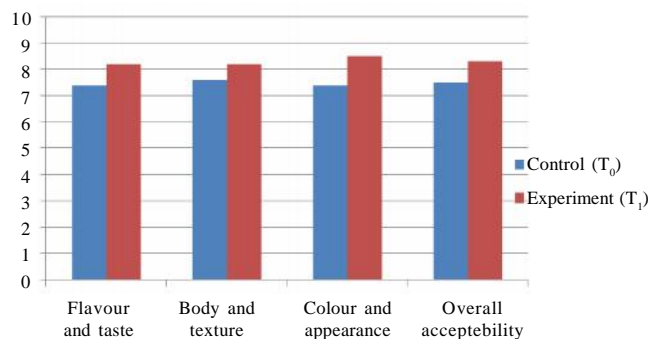


Fig. 2 : Mean overall acceptability of pumpkin seed soup

Table 1 : Organolaptic evaluation of pumpkin seed *Halwa*

Product	Flavour and taste	Body and texture	Colour and appearance	Overall acceptability
T ₀ (Controlled)	6.7	7.8	7.6	7.7
T ₁ (Experimental)	9.0	8.7	9.0	9.0

Table 2 : Organolaptic evaluation of pumpkin seed soup

Product	Flavour and taste	Body and texture	Colour and appearance	Overall acceptability
T ₀ (Controlled)	7.4	7.6	7.4	7.5
T ₁ (Experimental)	8.2	8.2	8.5	8.3

plan were tabulated and analyzed statistically. The result from the analysis presented and discussed chapter in the following sequence.

Calculation of nutritive value of pumpkin seeds:

Organoleptic evaluation of pumpkin seeds based products. Flavor and taste, Body and texture, Color and appearance and Overall acceptability.

Table 1 shows that the experimental (T₁) obtained maximum 9.0, 8.7, 9.0 and 9.0 for flavor and taste, body and texture, color and appearance, overall acceptability; while control (T₀) 6.7, 7.8, 7.6 and 7.7 for flavour and taste, body texture, colour and appearance, overall acceptability, respectively. This indicated that the experimental (T₁) *Halwa* was found to be fallen under category of “Liked Very Much to Liked Extremely (Fig. 1).

Table 2 shows that the experimental (T₁) obtained maximum 8.2, 8.2, 8.5 and 8.3 for flavour and taste, body and texture, colour and appearance, overall acceptability; while control (T₀) 7.4, 7.6, 7.4 and 7.5 for flavor and

taste, body texture, colour and appearance, overall acceptability, respectively. This indicated that the experimental (T₁) Soup was found to be fallen under category of “Liked Very Much to Liked Extremely” (Fig. 2).

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