

Acceptability of Ginger (*Zingiber officinale*) Ashitaba (*Angelica Keiskei*) Oregano (*Origanum Vulgare*) Brew

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Abstract

This experimental research was conducted to determine the level of acceptability of Ginger Ashitaba Oregano Brew. A Nine-Point Hedonic Scale and Five-Point Likert Scale was utilized to determine the general acceptability of the product and to know the perception as to aroma, appearance, and flavor in three phases. Fifteen faculty and Fifteen students of Iloilo Science and Technology University were used as evaluators. The statistical tools employed were means, standard deviations, and t-test. The findings of the study showed that the level of general acceptability of Ginger *Ashitaba Oregano brew* to the faculty was “likely extremely acceptable” and to the students was “liked very much acceptable”. In terms of aroma, the faculty perceived that Ginger Ashitaba Oregano Brew has a “moderate aroma” while students as “extreme aroma”. As to appearance, the faculty perceived the product as “slightly brown” while students as “moderately brown”. As to flavor, both the faculty and students perceived the product as an “extreme taste”. An independent t-test was run on the data with 95% confidence interval (CI) for the mean difference. In general acceptability, the faculty evaluators ($\mu = 8.53$) were significantly higher than the student evaluators ($\mu = 7.87$) ($p = 0.02$) with a difference of 0.66. The perception of the faculty and students in terms of aroma, appearance, and general acceptability was significant while in terms of flavor it was not significant. The ginger ashitaba oregano brew was acceptable to faculty and students. With this, further research must be done with regards to the nutritional value and other benefits of this brew.

Keywords: Ginger; Ashitaba; Oregano; Brew, Health

Introduction

Care of a person's health is important in determining his length of existence as a person's being. All and sundry implicitly values his health and wellbeing. It is only if people are sick, injured, or the standard of their life is under threat, that they recognize its importance as they go about to the potential loss of wellbeing, mobility, or life itself. Many people make choices about the way they live their lives that potentially damage their bodies or their minds – healthy choices are not always easy choices. For some, the lottery of life delivers special challenges to health and wellbeing and living with a disability, chronic disease or disadvantage will be a tough reality^[1].

People often devote more attention to the health and wellbeing of their family, friends, and even distant communities, than to their health; that is what makes them human – their altruism and fallibility. Few of them can stand by and watch a baby die if there is an opportunity of shopping for them some more days or months, regardless of the worth^[2]. As a community, it would be found confronting to be asked to plan rationing high-cost health care, like renal dialysis to the elderly, if it released resources to increase the lives of sick children. The so-called rule of rescue means people feel an ethical imperative to speculate within the care of identifiable individuals, irrespective of what the economic metrics may show. But the fact is all health care costs money, and money is scarce, facing everyone with tragic choices. the approach to life of in-

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dividuals towards food preferences is more on delicious food. The Filipino people are keen on eating Lechon, fried chicken, or any menu which is more on fats. because of this, the era of individuals nowadays is becoming shorter specified people became tuned into their health. they need to resort to alternative or herbal medicine like malunggay, sambong, ginger, guyabano, star apple, oregano, ashitaba, and plenty of more as a cure or safety measure for anticipated ailments. particularly ginger, oregano, and ashitaba are common herbs within the locality that are utilized by folks in curing certain diseases^[3].

Ginger root is known for its medicinal properties and is used in many traditional medicines. The healing benefits of ginger are mainly due to its volatile oils and the high oleoresin content (Olalekan, 2013). Ashitaba or Tomorrow's leaf was named for its ability to reproduce its green stem and leaf almost daily. The population of Hachijo Island consumed Ashitaba which contributed to their extended lifetime. Oregano (*Origanum Vulgare*) is more popularly known for its aromatic and balsamic flavor and is commonly used as a mint flavoring in Mediterranean and Mexican foods. It is used as herbal medicine and has its earliest beginnings even in early Egyptian times and has been traditionally used as an herbal remedy for skin burns, cuts, and bruises. Because of the minty flavor of oregano, it is also used as an herbal remedy for sore throat, asthma, colds, coughs, and flu (Medical Health Guide, 2016).

This study was conducted to determine the level of acceptability of Ginger Ashitaba Oregano Brew. Specifically, it sought answers to the following questions: (1) What is the perception of the evaluators of Ginger Ashitaba Oregano Brew as to aroma, appearance, flavor, and general acceptability? and (2) Is there a significant difference in the perception of the evaluators of the Ginger Ashitaba Oregano Brew as to aroma, appearance, flavor, and general acceptability?

The researchers were prompted to determine the acceptability of ginger, ashitaba, and oregano as a brew because of its medicinal value. It is believed that this three-in-one brew can help address health problems and can give much better benefits to those who wanted to have a healthy and enjoyable life.

Materials and Methods

Method

An experimental method was used in this study. According to Calderon and Gonzales (1993), the experimental method is used to discover the influence of one or more factors upon a condition, group, or situation, the purpose of which is to discover "what will be". It describes and analyzes variables in carefully controlled conditions as a basis for inferring or concluding.

As applied in this study, experimental research was used to determine the perception of the evaluators of the Ginger Ashitaba Oregano Brew.

The evaluators of this study were 15 faculty and 15 Bachelor of Industrial Technology Students major in Food Technology of Iloilo Science and Technology University Miagao Campus, Miagao, Iloilo, Philippines. Random sampling was used in choosing the evaluators^[4].

Materials and Instrumentation

The data gathering instrument used in this study was The Nine-

Point Hedonic Scale (Lawless & Heymann, 2013). This experimental study was divided into three phases: Phase I includes the preparation of the ginger root, ashitaba, and oregano, Phase II, procedures, and Phase III, evaluation of the samples.

The ingredients used in making ginger ashitaba oregano brew were the following: (1) 1000 grams ginger (whole), (2) 750 grams brown sugar, (3) 50 grams ashitaba young leaves, (4) 25 grams oregano young leaves, (5) ½ cup water. The following are the detailed procedures on how to make the ginger ashitaba oregano brew.

Phase I: The Ginger Root preparation procedure: (1) Select round young ginger rhizomes, (2) Clean and remove bruised and spoiled particles, (3) Wash and weigh, (4) Scrape off the skin, (5) Cut or slice the ginger thinly and chop, (6) Pared with a peeler and shred it, (7) Put in a bowl and set aside, (8) Add water, approximately 1 cup or enough to cover, (9) Grind chopped ginger in an osteorizer, and (10) Strain and measure. The Ashitaba preparation procedure: (1) Wash the young leaves of Ashitaba in running water, and (2) Add ¼ cup of water and blend. The Oregano preparation procedure: (1) Wash the young leaves of oregano in running water, and (2) Add ¼ cup of water and blend.

Phase II: The cooking procedure: (1) To the extract, add sugar (2-3) kilos, (2) Simmer for forty- five minutes. Reduce fire if the ginger syrup is already thick, (3) Cook and stir continuously until granules are formed and become dry, (4) Pound granules and sift to obtain a uniform product, (5) Pack in a small plastic bag and seal, and (6) To make a beverage or salabat, add 1 table-spoon instant ginger tea to every cup of hot water.

Phase III: The evaluation of samples began when the researchers approached the evaluators to evaluate the Ginger Ashitaba Oregano Brew using Sensory Evaluation Sheet. The evaluators were asked to rate the product as to aroma, appearance, and flavor using the Five-Point Likert Scale. The Nine-Point Hedonic Scale was utilized in evaluating the general acceptability.

The responses of the evaluators through the Sensory Evaluation Sheet were tallied, tabulated, and analyzed. The data gathered were computed using appropriate statistical tools.

Results and Discussion

The findings of the study revealed the perception of the faculty and the bachelor's in industrial technology major in food Technology students as to aroma, appearance, flavor, and general acceptability. To describe the data, respective mean scores and corresponding standard deviations were displayed.

Table 1: Mean Scores of the Faculty and Students' Sensory Evaluation of Ginger Ashitaba Oregano Brew as to Aroma

Evaluators	μ	SD	Description
Faculty	4.07	1.03	Moderately Ginger Ashitaba Oregano Aroma
Students	4.93	.26	Extremely Ginger Ashitaba Oregano Aroma

Table 1 presents the mean scores of the faculty and students' sensory evaluation of Ginger Ashitaba Oregano Brew

as to aroma. The faculty perceived the product as “moderately ginger ashitaba oregano aroma” ($\mu = 4.07$, $SD = 1.03$). On the other hand, the students perceived it as “extremely ginger ashitaba oregano aroma” ($\mu = 4.93$, $SD = .26$).

Table 2: Mean Scores of the Faculty and Students’ Sensory Evaluation of Ginger Ashitaba Oregano Brew as to Appearance

Evaluators	μ	SD	Description
Faculty	2.67	.90	Slightly Brown
Students	3.73	1.10	Moderately Brown

Table 2 presents the mean scores of the faculty and students’ sensory evaluation of Ginger Ashitaba Oregano Brew as to appearance. The faculty described the product as “slightly brown appearance” ($\mu = 2.67$, $SD = .90$). However, the students described it as a “moderately brown appearance” ($\mu = 3.73$, $SD = 1.10$).

Table 3: Mean Scores of the Faculty and Students’ Sensory Evaluation of Ginger Ashitaba Oregano Brew as to Flavor

Evaluators	μ	SD	Description
Faculty	4.80	.41	Extreme Taste
Students	4.73	.46	Extreme Taste

Table 3 presents the mean scores of the faculty and students’ sensory evaluation of Ginger Ashitaba Oregano Brew as to flavor. Both the faculty and the students perceived the product as “extreme taste of ginger ashitaba oregano brew” ($\mu = 4.80$ and 4.73 , $SD = .41$ and $.46$).

Table 4: Mean Scores of the Faculty and Students’ Sensory Evaluation of Ginger Ashitaba Oregano Brew as to General Acceptability

Evaluators	μ	SD	Description
Faculty	8.53	.52	Liked Extremely
Students	7.87	.92	Liked Very Much

Table 4 presents the mean scores of the faculty and students’ sensory evaluation of Ginger Ashitaba Oregano Brew as to General Acceptability. The data revealed that the faculty perceived the product according to its general acceptability as “liked extremely” ($\mu = 8.53$, $SD = .52$). On the other hand, the students perceived it as “liked very much” ($\mu = 7.87$, $SD = .92$).

Table 5: t-test Results of the Evaluators’ Perception of Ginger Ashitaba Oregano Brew as to Aroma

Evaluators	N	μ	SD	Sig. (2-tailed)	Remarks
Faculty	15	4.07	1.03		
Students	15	4.93	.26	0.01	Significant

Table 5 shows the t-test result of the evaluator’s perception of Ginger Ashitaba Oregano Brew as to aroma. The data revealed that the p-value is 0.01 which is lower than the .05 level of significance. Therefore, there is a significant difference in the perception of the evaluators as to the said category.

Table 6: t-test Results of the Evaluators’ Perception of Ginger Ashitaba Oregano Brew as to Appearance

Evaluators	N	μ	SD	Sig. (2-tailed)	Remarks
Faculty	15	2.67	.90		
Students	15	3.73	1.10	0.01	Significant

Table 6 shows the t-test results of the evaluator’s perception of Ginger Ashitaba Oregano Brew as to appearance. The data revealed that the p-value is 0.01 which is lower than the .05 level of significance. Therefore, there is a significant difference in the perception of the evaluators as to the appearance of Ginger Ashitaba Oregano Brew.

Table 7: t-test Results of the Evaluators’ Perception of Ginger Ashitaba Oregano Brew as to Flavor

Evaluators	N	μ	SD	Sig. (2-tailed)	Remarks
Faculty	15	4.80	.41		
Students	15	4.73	.46	0.68	Not Significant

Table 7 shows the t-test Result of the evaluator’s perception of Ginger Ashitaba Oregano Brew as to flavor.

In the given data, the p-value is 0.68 which is higher than the .05 level of significance. Therefore, there is no significant difference in the perception of the evaluators as to the flavor of Ginger Ashitaba Oregano Brew.

Table 8: t-test Results of the Evaluators’ Perception of Ginger Ashitaba Oregano Brew as to General Acceptability

Evaluators	N	Mean	SD	Sig. (2-tailed)	Remarks
Faculty	15	8.53	.52		
Students	15	7.87	.92	0.02	Significant

Table 8 shows the t-test Result of the evaluator’s perception of Ginger Ashitaba Oregano Brew as to general acceptability. In the given data, the p-value is 0.02 which is lower than the .05 level of significance. Therefore, there is a significant difference in the perception of the evaluators as to the general acceptability of Ginger Ashitaba Oregano Brew.

Conclusions

Ginger Ashitaba Oregano brew brings a unique blend in terms of aroma, appearance, and flavor among faculty and students. As to aroma, the faculty perceived the aroma of the brew as moderate while students perceived it as an extreme aroma. Students perceived more the aroma of the brew compared to the faculty evaluators. As to appearance, the faculty perceived the brew as slightly brown while the students perceived it as moderately brown. As to flavor, the faculty and students perceived that ginger ashitaba oregano brew has an extreme taste and that taste might come from the strong aroma of the ginger. As to general acceptability, the faculty perceived the brew as liked extremely, while the students as liked very much. The faculty liked it extremely because of its taste and warm effect on the body.

There is a significant difference in the perception of the faculty and students in terms of aroma, appearance, and general

acceptability. Ginger ashitaba oregano brew gives a good impression to the faculty and students in college and it provides health benefits in ginger, ashitaba, and oregano as mentioned in the works of literature.

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