

## Organic SunRice Corn Tea (SCT) Product

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*Abstract: This study determines the use of Organic Rice Corn Tea use as substitute for coffee beans and instant tea. The SCC is a mix of brown rice and heirloom corn variety. Brown rice is a heartier, fiber-packed alternative to less-than-super white rice, 1.7 grams of resistant starch, a healthy carb that boosts metabolism and burns fat. Corn known for their strong immunity to diseases and physical strength. The SCC tastes great and can be enjoyed hot or cold and is quite mild to drink. The taste is nutty and has a subtle aroma of roasted rice and corn, which helps balance the bitterness.*

*Keywords: Organic, Rice, Corn, Tea*

### I. INTRODUCTION

The word "organic" refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products, and meat. Organic farming practices encourage soil and water conservation, as well as reduce pollution. Jul 8, 2015.

The definition of organic is natural matter or compounds with a carbon base, and also refers to food and meat grown or raised without chemicals or pesticides. Natural plant matter is an example of something that would be described as organic.

Simply stated, organic produce and other ingredients are grown without the use of pesticides, synthetic fertilizers, sewage sludge, genetically modified organisms, or ionizing radiation. Animals that produce meat, poultry, eggs, and dairy products do not take antibiotics or growth hormones.

Organic foods may have higher nutritional value than conventional food, according to some research. The reason: In the absence of pesticides and fertilizers, plants boost their production of the phytochemicals (vitamins

and antioxidants) that strengthen their resistance to bugs and weeds. Nov 29, 2017

There is no good evidence that organic food tastes better than its non-organic counterparts.<sup>[8]</sup> There is evidence that some organic fruit is drier than conventionally grown fruit; a slightly drier fruit may also have a more intense flavor due to the higher concentration of flavoring substances.<sup>[4]</sup>

“Organic plant-based foods are, on average, more nutritious.”

Tea is a drink that is made by soaking the dried leaves of an Asian plant in hot water. : a similar drink that is made by using the dried leaves of another kind of plant. : the dried leaves that are used in making tea.

Rice is a food grain that contains a number of vitamins and minerals that are extremely healthy for us. Brown rice has only the husk removed from the grain, leaving the bran and germ layers — making this whole grain rice nutritious with a nutty, mild flavor.

Harvest sweet corn when the kernels are full of milky-colored juice; allow other types to remain on the stalks until fully dry. All types of heirloom corn are grown the same way. At about the time of last frost in spring, plant heirloom corn seeds directly into the richest soil available, 1-2 inches deep.

This study will determine the development and acceptability of organic SunRice Corn Tea (SCT) product.

### ***Objective of the Study***

The study aims to develop a flavorful, aromatic and nutritious tea product .

Specifically, the study aims to:

1. develop a flavorful, aromatic and nutritious tea for people with high blood pressure, gout, treats bedwetting, kidney problems, boosts digestion, increase urine, lowers cholesterol and controls blood sugar levels.
2. determine the shelf-life of packed/unpacked/ bottled organic products.
3. compute the cost and return of developing organic products.

### ***Scope and Limitation***

The study will focus on the development of organic SunRice Corn Tea which the brown rice and heirloom corn which are abundant across Asia.

## **II. RELATED LITERATURE**

Organic food is food produced by methods that comply with the standards of organic farming. Standards vary worldwide,

but organic farming in general features practices that strive to cycle resources, promote ecological balance, and conserve biodiversity. Organizations regulating organic products may restrict the use of certain pesticides and fertilizers in farming. In general, organic foods are also usually not processed using irradiation, industrial solvents or synthetic food additives.<sup>[1]</sup>

Currently, the European Union, the United States, Canada, Mexico, Japan, and many other countries require producers to obtain special certification in order to market food as organic within their borders. In the context of these regulations, organic food is produced in a way that complies with organic standards set by regional organizations, national governments and international organizations. Although the produce of kitchen gardens may be organic, selling food with an organic label is regulated by governmental food safety authorities, such as the US Department of Agriculture (USDA) or European Commission (EC).<sup>[2]</sup>

Fertilizing and the use of pesticides in conventional farming has caused, and is causing, enormous damage worldwide to local ecosystems, biodiversity, groundwater and drinking water supplies, and sometimes farmer health and fertility. These environmental, economic and health issues are intended to be minimized or avoided in organic farming. From a consumers perspective, there is not sufficient evidence in scientific and medical literature to support claims that organic food is safer or healthier to eat than conventionally grown food. While there may be some differences in the nutrient and anti nutrient contents of organically- and conventionally-produced food, the variable nature of food production and handling makes it difficult to generalize results.<sup>[3][4][5][6][7]</sup> Claims that organic food tastes better are generally not supported by tests.<sup>[4][8]</sup>

With respect to chemical differences in the composition of organically grown food compared with conventionally grown food,

studies have examined differences in nutrients, antinutrients, and pesticide residues.<sup>[7]</sup> These studies generally suffer from confounding variables, and are difficult to generalize due to differences in the tests that were done, the methods of testing, and because the vagaries of agriculture affect the chemical composition of food;<sup>[7]</sup> these variables include variations in weather (season to season as well as place to place); crop treatments (fertilizer, pesticide, etc.); soil composition; the cultivar used, and in the case of meat and dairy products, the parallel variables in animal production.<sup>[3][5]</sup> Treatment of the foodstuffs after initial gathering (whether milk is pasteurized or raw), the length of time between harvest and analysis, as well as conditions of transport and storage, also affect the chemical composition of a given item of food.<sup>[3][5]</sup> Additionally, there is evidence that organic produce is drier than conventionally grown produce; a higher content in any chemical category may be explained by higher concentration rather than in absolute amounts.<sup>[4][page needed]</sup>

The amount of nitrogen content in certain vegetables, especially green leafy vegetables and tubers, has been found to be lower when grown organically as compared to conventionally.<sup>[9]</sup> When evaluating environmental toxins such as heavy metals, the USDA has noted that organically raised chicken may have lower arsenic levels.<sup>[6]</sup> Early literature reviews found no significant evidence that levels of arsenic, cadmium or other heavy metals differed significantly between organic and conventional food products.<sup>[4][page needed][17]</sup> However, a 2014 review found lower concentrations of cadmium, particularly in organically grown grains.<sup>[3]</sup>

A 2014 meta-analysis of 343 studies on phytochemical composition found that organically grown crops had lower cadmium and pesticide residues, and 17% higher concentrations of polyphenols than

conventionally grown crops.<sup>[3]</sup> Concentrations of phenolic acids, flavanones, stilbenes, flavones, flavonols, and anthocyanins were elevated, with flavanones being 69% higher.<sup>[3]</sup> Studies on phytochemical composition of organic crops have numerous deficiencies, including absence of standardized measurements and poor reporting on measures of variability, duplicate or selective reporting of data, publication bias, lack of rigor in studies comparing pesticide residue levels in organic and conventional crops, the geographical origin of samples, and inconsistency of farming and post-harvest methods.<sup>[3][5]</sup>

A 2012 meta-analysis determined that prevalence of *E. coli* contamination was not statistically significant (7% in organic produce and 6% in conventional produce). While bacterial contamination is common among both organic and conventional animal products, differences in the prevalence of bacterial contamination between organic and conventional animal products were also statistically insignificant.<sup>[5]</sup>

Demand for organic foods is primarily driven by concerns for personal health and for the environment.<sup>[9]</sup> Global sales for organic foods climbed by more than 170 percent since 2002 reaching more than \$63 billion in 2011<sup>[15]</sup> while certified organic farmland remained relatively small at less than 2 percent of total farmland under production, increasing in OECD and EU countries (which account for the majority of organic production) by 35 percent for the same time period.<sup>[16]</sup> Organic products typically cost 10 to 40% more than similar conventionally produced products, to several times the price.<sup>[10]</sup> Processed organic foods vary in price when compared to their conventional counterparts.

While organic food accounts for 1–2% of total food production worldwide, the organic food sales market is growing rapidly with between 5 and 10 percent of the food market share in the United States according to the Organic Trade

Association,<sup>[20]</sup> significantly outpacing sales growth volume in dollars of conventional food products. World organic food sales jumped from US \$23 billion in 2002<sup>[21]</sup> to \$63 billion in 2011.<sup>[22]</sup>

Production and consumption of organic products is rising rapidly in Asia, and both China and India are becoming global producers of organic crops<sup>[11]</sup> and a number of countries, particularly China and Japan, also becoming large consumers of organic food and drink.<sup>[12][13]</sup> The disparity between production and demand, is leading to a two-tier organic food industry, typified by significant and growing imports of primary organic products such as dairy and beef from Australia, Europe, New Zealand and the United States.<sup>[14]</sup>

### ***Conceptual Framework***

There is widespread public belief that organic food is safer, more nutritious, and better tasting than conventional food,<sup>[15]</sup> which has largely contributed to the development of an organic food culture. Consumers purchase organic foods for different reasons, including concerns about the effects of conventional farming practices on the environment, human health, and animal welfare.<sup>[15]</sup>

The most important reason for purchasing organic foods seems to be beliefs about the products' health-giving properties and higher nutritional value.<sup>[16][17]</sup> These beliefs are promoted by the organic food industry,<sup>[18]</sup> and have fueled increased demand for organic food despite higher prices and difficulty in confirming these claimed benefits scientifically.<sup>[3][19][20][21][22]</sup> Organic labels also stimulate the consumer to view the product as having more positive nutritional value.<sup>[5]</sup>

Psychological effects such as the "halo" effect, which are related to the choice and consumption of organic food, are also important motivating factors in the purchase of organic food.<sup>[4]</sup> The perception that organic food is low-calorie food or health food appears to be common.<sup>[4][6]</sup>

In China the increasing demand for organic products of all kinds, and in particular milk, baby food and infant formula, has been "spurred by a series of food scares, the worst being the death of six children who had consumed baby formula laced with melamine" in 2009 and the 2008 Chinese milk scandal, making the Chinese market for organic milk the largest in the world as of 2014.<sup>[16][17][18]</sup> A Pew Research Centre survey in 2012 indicated that 41% of Chinese consumers thought of food safety as a very big problem, up by three times from 12% in 2008.<sup>[19]</sup>

The study will make use of the Input Process Output model. The input will constitute the requirement to be gathered for the development of this study. The process will include statistical analysis and the procedure for the development of the study. The expected output of the study is the use of Organic Rice Corn Tea use as substitute for instant coffee beans.

## **III. METHODOLOGY**

### ***Research Design***

The study will employ developmental research in creating the product. This method is appropriate since the study will focus of 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: Interview 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: Agriculturist, Farmers, Culinary Experts, Food Technologies and Housewife. The Agriculturist and Farmers will help the researcher in determining the quality of organic brown rice and organic heirloom corn that is harvest while the culinary experts, food technologies and housewife which will serve as evaluators of the product.

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