

CHAPTER I

INTRODUCTION

1.1 Background of Study

Cereal is a type of food that are made from grains, such as wheat, oats, corn, rice, or barley which has been consumed for centuries (Britannica, 2023). The grains are then harvested and processed to take the edible part which will be cooked and formed into various shapes to make a ready-to-eat food. Cereal is usually eaten during breakfast and is often served with milk and can also be served with yogurts or sweeteners (Ayuda, 2022). Cereal is a very convenient and nutritious food that can be easily prepared which makes cereal a popular choice for any individuals and families.

In recent years, there has been a trend towards healthier eating habits and consuming nutritious food. People are started to be aware of their eating habits and started seeking for foods that are high and nutrients, vitamins, and mineral, in order to maintain good health and prevent disease. With most of their busy schedule and their demanding lifestyle, people are now starting to look for a convenient and ready-to-eat food that can save them time and effort. To solved this problem, many food manufacturers started to develop a variety of ready-to eat food option that are convenient and nutritious, such as cereal that contains fruit, vegetable, whole grain, and lean proteins.

Conforming to the worldwide inclination, strawberries are among the most prevalent fruits incorporated into cereal consumption. Strawberries have a several health benefits which are good for the body. Strawberries is known as fruits that are rich in vitamin C, which is important for immune system, skin health, and iron absorption (Zelman, 2020). It also contains dietary fiber that are low in calories and high in fiber that aids digestion and help regulate blood sugar levels. Strawberries are high in antioxidant that are known as polyphenols, which can help protect the body against damage from harmful

molecule. Since strawberries are high in antioxidant, it can also reduce the risk of chronic disease, such as cancer and heart disease. Given its many health benefits, strawberry is an excellent ingredient to incorporate into a cereal meal.

Furthermore, as a valuable ingredient offering similar health benefits as strawberry, red spinach can be added to cereal consumption. Just like strawberries, red spinach is also packed with beneficial antioxidants, including polyphenols and flavonoids, which have been shown to have anti-inflammatory properties that associated with many chronic diseases. It is also rich in vitamins (A, C, and K) as well as minerals such as calcium, iron, and magnesium. Red spinach is also a good source of fiber that are low in calories which is good to maintain healthy digestion (Jahan *et al.*, 2022). Additionally, red spinach is also a great addition to breakfast meal like cereal, as it contains dietary nitrates that are known to lower blood pressure and improve blood flow, thereby enhancing cardiovascular health.

1.2 The Objectives of the Study

1. In order to follow a trend “healthy eating habits”, the aim of this study is to create a cereal that is healthier than other cereal sold in the market, which uses strawberry and red spinach.
2. To create a product that is not only healthy but also appealing for consumers with the potential to be commercialized as a healthy ready-to-eat breakfast cereal, which will be marketed internationally.
3. To investigate the nutritional value of cereal that are made from strawberry and red spinach.