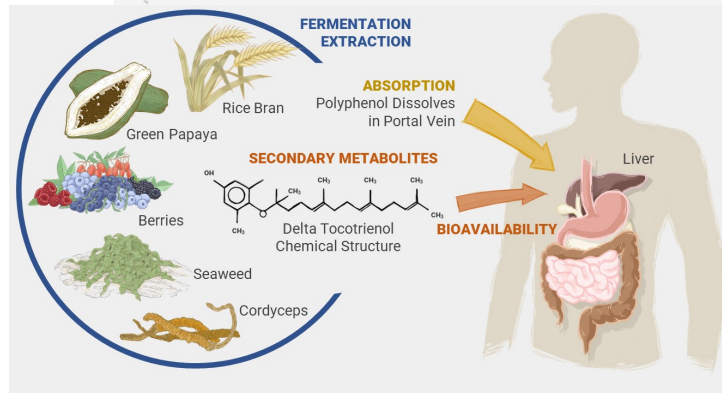


Secondary Metabolites in Kiseki

Playing the important role in defence against the pathogens and improves the immune system

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For thousands of years, fermentation has existed in our culinary history around the world. Long before the scientific and nutritional attributes of fermented food and drinks were being investigated, fermentation was primarily used to produce beverages, alter the taste of certain foods and preserve foods. It is only in the last few decades that Western scientists paid more attention to the effects of fermentation and studies were conducted to understand the biochemical pathways of the end products of fermentation. These end products are called secondary metabolites and are derived from plant phytochemicals.

Secondary metabolites from plant phytochemicals that are present in Kiseki are obtained from the amplified nutritional effect of the plant phytochemicals from our raw organic ingredients ~ green papaya, seaweed, berries, rice bran and cordyceps ~ through our proprietary fermentation process. One of the main phytochemicals present in Kiseki is polyphenols. Polyphenols are the secondary metabolites of plants and are usually involved in the defence against aggression by pathogens and ultraviolet light. Polyphenols are packed with antioxidants and potential health benefits such as improve or help treat digestion issues, weight management difficulties, diabetes, neurodegenerative disease, and cardiovascular diseases. The type and number of polyphenols are dependent on their origin, ripeness of the fruits, how they were farmed, transported and prepared. We work very closely with our raw ingredients supplier to ensure optimal care is taken, from the selection of the particular plant species all the way to the method of preparation for export to ensure we get better quality and higher polyphenols concentration in our product.

Our proprietary fermentation process enhances the total phenolic content in our premium raw materials via the biotransformation between soluble phenolics and the release of bound phenolics induced by micro-organisms involved in the fermentation process. Free forms of phenolics resulting from this fermentation process allow our body to absorb the antioxidants more readily.

Studies have found that smaller molecular weights of polyphenols can be absorbed in the body better as compared to polyphenols with larger molecular weights. Our proprietary fermentation method degrades the plant extracts into monomer or dimer units, reducing the secondary metabolites into smaller molecular weights. As a result, there is no need for our consumers to undergo a long digestion period and be dependent on different digestive enzymes to absorb and utilise the nutrients from Kiseki. This is especially beneficial for people who have weak digestion or digestive enzyme deficiencies. Prolonged weak digestive system, chronic enzyme deficiencies and compromised immunity system are the causes of malnutrition. The detrimental effect of malnutrition is accumulative and is seen to be just 'feeling under the weather' or having soreness in various parts of the body here and there. Malnutrition for a period of time will lead to inflammation in the intestines, leading to further digestive issues, causing a whole cycle of digestive issues and weakness in the body.

While the secondary metabolites in Kiseki act as a booster to initiate healing and recovery of the body, we still emphasize on a balanced and nutritious food intake in your daily life. Both primary (sourced from carbohydrates and amino acids from food) and secondary metabolites overlap each other to create a synergistic effect on health.

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