



Roselle – scientific name: *Hibiscus sabdariffa* L

- Menstrual Pain. – Provides relief from cramps and menstrual pain. Anti-Inflammatory and Antibacterial Properties - Aids Digestion.
- Weight Loss - Antidepressant Properties - Anti-Cancer Properties.
- Cough, Colds and Fever Management - Blood Pressure Management.



CPT Roselle Powder, we have eliminated the water which is approximately 85% of the total weight. It is, thereby, naturally concentrated six to seven times. Roselle tea is a mild infusion; you drink the mild infusion and throw the flower (calyx) away. In the case of our Roselle powder capsules you are actually consuming the entire calyx. All benefits, nutritional and otherwise are highly concentrated.

Taken as capsules - minimum of 2 per day - 2 to 4 per day would be more beneficial.

Roselle, also known as Hibiscus tea has a long tradition of use as a health-supporting drink and food ingredient, and is well known and widely used around the planet.

The key to the unique quality, safety, and convenience of Siam Superherbs Roselle powder capsules is our proprietary Cellular Preservation Technology (CPT) freeze dry process. Thailand is known for superior quality Roselle. We start with the high quality *Hibiscus sabdariffa* that grows and is processed fresh at our doorstep. Our process cannot make the plant better than nature has created it, but it does sustain and deliver all the benefits in a fully-dried, stable, highly concentrated powder that has undergone an aqueous ozone anti-microbial treatment.

Roselle is not a fruit or a flower. The edible parts used to make the juice or teas are the “calyxes,” the red fleshy sepals that cover and enclose the flower’s seed pods.

[Ancient Wisdom and Spiritual History:](#)

The ancient sages did not have the same tools of investigation or the same vocabulary we use today. Consistent results over long periods of time gave rise to knowledge expressed in the spiritual vernacular of their day. When a culture attributes high value to a botanical there is often logical observation-based reasons behind this.

Hibiscus is used as an offering to the Goddess Kali and Lord Ganesha in Hindu worship. The red hibiscus flower is said to incite passion and attract love. Hawaiian women wear a single

hibiscus behind the right ear to indicate availability. Egyptian women have been banned from drinking Roselle tea because it is said to act as an aphrodisiac and induce lust. Hibiscus is used in incense mixtures to assist divination and clairvoyance and when the pedals are floated on water in a wooden bowl the result is sacred and used to attract good Spirits.

Nutritional Value:

Roselle is a good source of nutrients, vitamins and minerals. Consuming 100 grams of raw Roselle offers 215 mg of Calcium, 1.48 mg of Iron, 12 mg of Vitamin C, 51 mg of Magnesium, 6.0 g of Carbohydrate, 37 mg of Phosphorus, 208 mg of Potassium, as well as Vitamin A, of Vitamin B1, B2 and B3. The flowers are a rich source of anthocyanin (antioxidants) and **Protocatechuic acid** ("PCA"). Let's look not only at what Roselle provides, but just as important, what it lacks. Nutritional facts disclose very low levels of fat, sugar, sodium and carbs. (1)

Supporting traditional beliefs we know that Roselle is rich in phosphorous. Phosphorous along with calcium is essential to the formation and maintenance of strong bones and teeth. Phosphorous also helps to combat overall weakness including sexual weaknesses such as loss of libido, frigidity, impotence and sperm mobility (2)

Potassium helps to control electrical activity of muscles including the heart and regulation of our body fluids (including water balance). Health benefits include relief from high blood pressure, stroke and other heart disorders as well as regulation of blood sugar levels. Potassium supports kidney functions, and helps to relieve anxiety and stress. It also enhances muscle strength, brain function and supports the nervous system. (3)

Anti-Bacterial: PCA has been shown to treat malignant bacterial effected cells taken from human oral cavities.(4) In another study the anti-bacterial effects of PCA derived from Roselle effectively inhibited the growth of bacteria in humans and it was concluded that PCA specifically from Roselle may be useful in clinical infection prevention and therapy. (5)

Antioxidant / Anti-Inflammatory: PCA is a strong antioxidant and anti-inflammatory in general and specifically associated with liver protection. (6) Higher concentration in the color of the red flavonoid pigments in the anthocyanin's was shown to have a direct relationship to the antioxidant effects. Under less ideal processing temperatures and storage conditions the anthocyanin content declines. (7) This validates the strong advantage achieved by our proprietary **Cellular Preservation Technology**. This process is a key factor in delivering high quality premium freeze dried Roselle powder.

Anti-tumor: PCA was found to increase proliferation and inhibit apoptosis of neural stem cells and was found to induce cell death of human leukemia cells. (8) In a laboratory model using HL-60 leukemia cells, PCA was shown to prevent damage to genetic information that could

potentially lead to cancer, help destroy existing tumors (9) and PCA was found to inhibit the growth of lung cancer cells (10). PCA contained in *Hibiscus sabdariffa* may induce cell death

(apoptosis) in human leukemia cells.(11) and induce apoptosis in human gastric carcinoma cells to help fight stomach cancer. (12)

Immune Support: The high vitamin C content in Roselle can be an adjunctive therapy when combined with conventional treatments. Among the long list of benefits of Vitamin C, it may help to boost immunity and improve blood flow.

Weight Management: Roselle may help your body to break down your food and decrease absorption of carbohydrates. Roselle has been shown to decrease the synthesis of amylase, an enzyme that speeds up the chemical breakdown of starch into sugars. (13) In addition it boosts your metabolism allowing you to burn more calories faster. Studies show that *Hibiscus sabdariffa* significantly reduces body weight gain due to obesity.

Blood Pressure: A report by Diane McKay (antioxidant research laboratory of the Jean Mayer USDA Human Research Center on Aging at Tufts University/Boston) presented to the American Heart Association (published in November of 2008) states that consuming hibiscus lowers blood pressure in pre-hypertensive and mildly hypertensive adults. Dramatic improvement resulted from consuming only three cups of Roselle tea (a mild infusion) daily for a few weeks...think on then what 2 capsules could do for you. Another study conducted by Odigie IP suggests that Roselle can benefit people suffering from high blood pressure and at risk of heart diseases. This is supported by scientific studies which conclude that *Hibiscus sabdariffa* consumption may have a public health benefit due to its reduction of high blood pressure and lowering cholesterol in the blood primarily due to anthocyanin's found in abundance. (15) Another study describes *Hibiscus sabdariffa* as being rich in organic acids, polyphenols, anthocyanin's, polysaccharides and volatile constituents that are beneficial for the cardiovascular system and concludes that randomized controlled trials show a significant effect in lowering both systolic and diastolic blood pressure. (16)

In addition hibiscus has diuretic properties that increase urination, contributing to lowering blood pressure.

Lowering Cholesterol: Roselle Powder capsules has impressive antioxidant properties, it helps to lower "bad" LDL cholesterol, thereby helping to defend against heart disease and blood vessel damage.

Diabetes: Roselle's ability to lower cholesterol and high blood sugar levels may help people suffering from diabetes. A study conducted on humans with type II diabetes suggests that consumption of Roselle lowers cholesterol, triglycerides and low density lipoprotein cholesterol to help manage diabetes. (17)

Anti-aging: Antioxidant rich Roselle can help to keep your skin looking youthful. *Hibiscus sabdariffa* is a natural source of alpha hydroxyl acid (AHA) used in anti-aging products. In addition, the muscle tightening effect *Hibiscus sabdariffa* helps smooth fine lines and wrinkles

naturally while it strengthens skin cells. (18)

Keep cool and breathe more easily: reduces bronchoconstriction (narrowing of the airways) to allow you to breathe easy.

Studies show that Roselle decreases the negative effects of drinking alcohol by reducing the absorption of alcohol.

Ingesting Roselle as capsules has the potential to increase your vitality and lifespan by maintaining good overall health and wellness in many of our organ systems. Our delicious premium freeze dried Roselle powder is a safe and convenient way to make cold or hot tea, mix in your yogurt, baking, deserts etc. by twisting open a capsule. Let's get healthy!



CELLULAR PRESERVATION TECHNOLOGY

It is this process that distinguishes our herbs from all others.

1. Our herbs do not require any preservatives or heat treatment to prevent degradation. If this were a crème or liquid it would require preservatives since moisture is the medium for the enzymes and microorganisms to degrade the product.
2. The enzymes, vitamins, minerals and other vital ingredients are preserved with their full potency intact. The value of the herbs and botanicals are kept at their highest level.
3. It is exactly this high level of preservation of the vital ingredients that create the results that we would otherwise not achieve in traditional drying methods, even if we had used exactly the same ingredients in exactly the same proportions.
4. If we use heat to remove the moisture (de-hydration), the heat will denaturize the enzymes (making them ineffective), reduce the protein levels considerably and oxidize thermo-sensitive vitamins such as Vit C and beta-carotene.
5. The freeze dry process eliminates water without exposure to heat thereby preserving all of the enzymes, vitamins, minerals, and bioactive compounds.
6. The very small particle size (micronization - no need for grinding) and porous particle structure achieved by the Bio-Dynamic Freeze Dry Process allow our herbs to be more easily absorbed and metabolized. Vitamins such as Vit C are fat soluble and are easily and quickly absorbed into our body.
7. The effectiveness and capabilities of all our herbs are greatly enhanced due to the particulate size and structure produced by our transitional and evolutionary Freeze Dry process.



The Technology – Cellular Preservation Technology (CPT)

Cellular Preservation Technology or CPT is a proprietary technology which utilizes a modified form of freeze drying.

Freeze Drying has been used for centuries however the common industry standard freeze dry method typically uses traditional 'static' freeze drying with a further process of mechanical grinding.

Image 1 – Traditional Vs Cellular Preservation Technology (CPT)

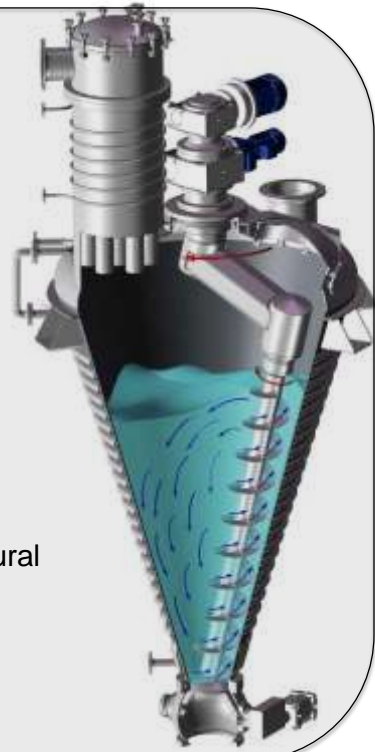
Traditional freeze drying



- multi-step process; bacteria and mould growth risk.
- static materials sitting on trays; 10-20% residual moisture
- product ground into a powder; product cell structure destroyed

Cellular Fracture Line technology

- 1-step process
- super frozen particles fly around in the product chamber
- no mechanical grinding.
- brittle material motion and sublimation of ice structure that hold it together causes product to break along natural elemental fracture lines.
- <0.1% residual moisture



CPT is a key component in the creation of our functional foods. It allows us to preserve a whole food in its fresh form, thus maintaining all of the medicinal activity of a live plant while providing the safety of a stable commodity.

This proprietary and transitional preservation process gives us the unique ability to provide a superior product compared to anything else available on the market today. The 'secret' to our technology is the Herbs are dried while they remain frozen in a vacuum state, rather than sitting motionless on trays (as in the traditional tray freeze drier), the product is flying round in a vortex. The deeply flash-frozen CPT granules decrease in size due to sublimation of the connecting ice structure and break into increasingly smaller particles along natural elemental fracture lines.

This creates a smaller particle size and porous structure without cellular hemorrhaging, caused by mechanical grinding of the traditional process as used in the industry today. CPT particles are much more easily absorbed and metabolized (more bio-available), and are more soluble for use as a catalyst ingredient in other formulations.

Solubility

As a food ingredient our herbs are highly soluble. Solubility ties into taste as well as ease to combine with other ingredients. This high level of solubility (enhanced by the CPT freeze dry process creates a more soluble particle structure),

Fresh Super herbs and Super foods

As soon as our botanicals are harvested they naturally begin to degrade. It is critically important to get them into the CPT process immediately after harvest. The logistics are challenging in any case, but the fact that they are grown at our doorstep in the mountains surrounding Chiang Mai, Thailand makes it all possible.

Higher Bioactivity Superior Efficacy

The objective achieved by CPT is preservation not only of the targeted ingredients but preservation of the entire cellular and molecular structure of the live plant. This is achieved by:

- An Evolutionary and Transitional Freeze Dry Process where the product is never exposed to the destructive oxidative forces of heat.
- Plant tissue fractures between/along the layers of the cell walls preserving cellular integrity and improving the retention of the bioactive intracellular contents.
- Water removed as a liquid at an extremely low constant temperature (minus 55 deg C) evaporates at a constant rate while the quantity of water steadily decreases. This creates surface tension. Any solid structure in contact with the water will normally experience surface tension strong enough to damage fragile cell walls; CPT removes water in its gaseous state (water vapor) and avoids this destructive surface tension.
- Exposure of the entire surface area to sublimation results in “even” drying which preserves cellular integrity.

The net result is preservation of the complex synergistic structure as close as possible to how it exists in nature. This translates to a more highly bioactive more effective powder.

Higher Absorption and Higher Bio-Availability

Particles break down inside the product chamber with minimal need for mechanical grinding. They break down due to the movement of the super frozen particles and sublimation of the ice structure that holds the particles together. This causes them to fall into small porous particles along the natural Cellular Lines creating soft, porous particles which have more surface area per unit of weight and therefore are absorb more easily.

The function and value of our food supplements lie not in lab tests alone, but in their energetic breakdown and uptake inside your body and the preservation of enzymes, proteins and vitamins.

The ability of your body to store or use these nutrients is called bio-availability – yet another huge advantage of our Cellular Preservation Technology activated botanicals.

The quality and effectiveness of our Products are the result of the remarkable protocols and processes we employ from the fields to the finished product. For details on this evolutionary process, please contact us at www.cptsuperherbs.com

Precautions: Avoid ingesting Roselle powder or tea during the first trimester of pregnancy due to possible hormonal interference.

Disclaimer: This product brief is solely intended as a source of information and does not prescribe or advise the use of any substance mentioned herein. The authors do not intend to diagnose, cure, treat, or prevent any disease. The Food and Drug Administration of Thailand has not evaluated any statements made herein.

Consult with your doctor about all prescription and non-prescription medicines you take before you begin to use any herbal products and partner with your professional health care practitioner on determining your own health destiny.

If you are a pregnant, considering pregnancy or are a nursing mother you should consult your physician prior to using any health supplement product.

End notes:

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