

# NUTRIENT SALT AND HEALTH

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**Abstract:** China salt Guoben salt Co.,Ltd (hereinafter referred to as Guoben) is a leading subsidiary enterprise of China National Salt Industry Corporation (hereinafter referred to as CNSIC) with focus on research, production and marketing on high valued salt, and also bears the leadership of nutrient salt corporations around china. It is the bounden duty of Guoben to make profound understanding the relationship of between nutrient salt the health of Chinese people, how to grasp the dynamic market of nutrient salt and how to "lead the modern salt industry, and create a better life". In view of the status quo of the nutrient salt production and the consumption market, the author tried to explore the relationship between nutrient salt and health from three aspects of the history, nutrient value and consumption pitfall about nutrient salt.

**Key words:** nutrient salt, human, health

Marxism holds that: The needs of nature and society are the basic needs for human, which promotes the development of production and social progress. Once the old need being satisfied and under certain conditions, a new need emerges, which in turn promotes further development of the productive forces and social progress. In other words, the human's need has a eternal continuity. When one need being satisfied, another need dooms to emerge, and when lower level need being satisfied, human will pursue higher level need. As the basic problem of food and clothing being solved by the end of the last century, people's consumption trend shift to luxury, "to eat nutritional food, wear beautiful clothes, live in spacious rooms, utilize luxurious furniture" has become a common phenomenon. Those needs promote the market expansion, quality improvement and new products. As a common condiment, nutrient salt is a necessity for most Chinese families. In this sense, the emergence of nutrient salt complies with the law of social development and requirements.

Based on the consumption of soil salt or big grains of salt, varied trace elements which are necessary for the human are added to

nutrient salt, which changes the singularity situation of salt consumption and enrich the salt market. Now various nutrient salt has come to common people's life. As an upgrade of edible salt, nutrient salt satisfies the need of society and improve the quality of people's life, which is an inevitable trend.

## 1. HISTORY OF NUTRIENT SALT IN CHINA

As for When the Chinese begin to eat nutrient salt and whether or not there is nutrient salt in the ancient china, we can conclude from the ancient historical documents that the health care experience from Chinese traditional medicine and the conscience of health care among the high officials in the royal court is no less than the contemporary knowledge. The only difference is that only the minority of can enjoy such experiences in ancient, whereas the majority of nowadays people have the privilege.

### 1.1 Trace of record about nutrient salt in ancient documents.

The ancient Chinese literature explicitly

recorded that salt could be used not only for condiment but also for health care treatment and were widely used around. China's earliest written records of the Salt is the "Collections of Tribute", where record the government of Qingzhou, Shandong Province paid salt as tribute to the royal court and also gave scientific explanation about the formation of salt form brine as well as lively metaphor. The earliest written records of the "Salt man" is in "Virtue of Zhou", which defined that the "salt man" was the administrator of salt administration and in charged of salt been used in all affairs such as ceremony sacrifice with bitter salt and bulk salt, treat with shape salt and bulk salt and the royally prandial use, even more, the official title was hereditary. The ancient people began to realize the health care function of salt dated back to Zhou Dynasty. "Virtue of Zhou" recorded that the doctor of then have used salt as a treatment for certain disease as well as physician and surgeon. As referred to the relationship of human's health and the function of salt was first recorded in the famous book "The Yellow Emperor's Classic of Internal Medicine". According to the theory of "The Yellow Emperor's Classic of Internal Medicine", each material was comprise of the five basic elements of "metal, wood, water, fire, earth", and accredited the five tastes in diet of "sour, hot, bitter, sweet and salty" to the five elements respectively. This book addressed the effect of salt on people's human body.

Another book "Shen Nong's Herbal Classic" also said that salt can treat disease, clear eyes, harden bones and reduce worm in body. The "Discussion over mountains and rivers" recorded that from the bottom to top of the salt mountain, there was "icy salt", whose shape differed from fist to plate and like crystals. "Biography of Gaochang of Wei dynasty" recorded that Gaochang produced red salt and tasted deliciously and also white salt with the shape of a jade, the people there treated the salt as a pillow and paid tribute of salt to the royal court, such appetizing and beautiful salt was then in poured to the central plain of china. "Golden carve" By Xiao Yi of Liang dynasty also recorded that a place named Hu produced white salt in the cliff, the cave was as bright as crystal. The local people paid the salt as a tribute to royal court, and named the salt as "royal salt" and also named "Wuhua salt". Because of its huge shape, the white

salt can be engraved with pictures, if the shape of the salt likes a tiger, it would be treated as ceremony sacrifice or other propitious ornaments.

## **1.2 The demand of international and domestic on the impact of nutrients**

The mission of salt for human's health is an indisputable fact. When human's history stepped into the 20th century, with the improvement and enrichment of people's life, many developed countries began to add all kinds of nutrients to the daily consumption of salt to conquer such diseases or sub-healthy issues as caused by unbalanced food or uneven geographical minerals or vitamin deficiency. Obviously, such measure is another major move in salt industry after salt iodization worldwide, which is another important initiative to release the human from disease in a subtle way rather than other drugs in a crammed way.

WHO pointed out that the human's common diseases are more than 130 species, most of which are concerned with insufficient absorption of vitamins and minerals. Though requirements of such vitamins and minerals are little but indispensable. Lack of vitamins or minerals will cause the body's disorder and even diseases

Nutrition surveys in China shows that with the improvement of living standards, people's diet and lifestyle had changed a lot, followed by an increase of diseases caused by excessive nutrition or nutritional imbalances. This is because that the deficiencies and imbalances intake of vitamins and minerals have been widespread, which affected the absorption of other nutrients

With the development of science and technology, Researchers found that many human diseases are due to the imbalance of trace elements and minerals. Trace elements and minerals are absorbed at regular intake rather than in a sudden way. Therefore, based on modern nutritional science and life science and carried by iodized salt, modern nutrient salt are combinations of different nutrient elements and minerals necessary which are necessary for human's health.

It is acknowledged worldwide that the supplement of trace elements is best carried by daily consumption of salt.

Nutritional and healthy salt are developed greatly in Europe, America, Japan and showed year-on-year sales on the rise in



China. American Nutrition Association proposed that the most convenient effective way to keep people's health and nutrition is to add trace elements to people's daily salt consumption, that is to say the intensified nutrient salt. Its basic function is to adjust the human physiological function, maintain metabolism and strengthen immunity. Nutrient salt also has its unique advantage in convenient and regular consumption, as well as seasoning and balancing nutrition. According to investigations by nutrition experts in China, the major deficiency of nutritional elements are calcium, zinc, selenium, iron, vitamin B2. If these trace elements are supplemented in a sudden way, the human body cannot absorb and the results are doomed to be bad. It should be adopted in a regular and a step-by-step manner. Daily absorption of such trace elements can be carried by edible salt and this turns out to be the most effective way to supplement trace element. The fast growing market of nutrient salt in recent years around the globe indicated that the demand of nutrimental and healthy salt meets people's expectation.

## 2. THE FUNCTION OF NUTRIENT SALT

Development of nutrient salt and its appearance on the market is another revolution of salt. Over the years it not only changed the packaging of iodized salt of its single appearance and price, but also solved salt packaging problems which may cause the social fluctuations. At the same time, it also meets the different needs of the consumer. On the basis of iodized salt, trace elements contained in seaweed are added to salt in order to enhance the physical quality of population, and improve social benefits, which will make new contribution. It also stimulates the economic development of the salt industry and provides an unprecedented opportunity for development. In accordance with the laws of market economics, the development of any production must have their own advantages. The nutrient salt is of no exception. In other words, the nutrient salt is has certain function for human health.

### 2.1 The functions of nutrient salt

Function of seaweed nutrient salt.

China's algae research began at the 1970s, algae contains protein of more than 60%,

which is comprised of 18 kinds of essential amino acids necessary for human body. It contains 18 kinds of amino acids, six kinds of vitamins. The content of the vitamin B2 is the highest, and the content of carotene, linolenic acid, chlorophyll is also high. Besides it also contains a variety of minerals. Nutrition contained in one gram of sea algae powder is equivalent to 1000 grams of a variety of vegetable. Algae have the function to lower cholesterol and lower cancer risk, to build a healthy lactic acid bacteria group, to reduce mercury and toxicity of drugs. It can improve the bioavailability of iron to relieve anemia. It can also be used to the healing of skin and trauma. A series of products of "nutritional seaweed salt" developed by Guoben is just the product to satisfy people's need for seaweed.

Function of Selenium enhanced nutrient salt.

Selenium has a beautiful name called "elements of the moon". Until recent 30 years, people began to attach importance to it. A wide range of selenium is present in all the organs and tissues of human body. Scientists found that selenium has a lot of "magic" functions. For example, for middle-aged and aged, the selenium can be anti-aging, for middle-aged and young men it can increase sperm motility. It can be used for prevention of cancer, detoxification and neutralize heavy metal toxicity. Selenium is important for mammals. Human's daily dietary intake of selenium is about 50 micrograms. Interaction of selenium and vitamin can force the body (especially the myocardium) to produce a variety of types of glutathione peroxides, lipid peroxidation inhibition melon, which can protect cell membrane and eliminate chain reaction of free radical. It also can resist the harm caused by such poisonous elements as arsenic, chromium, mercury, lead and further to promote body's immunity. At the same time, selenium may also protect the heart. Shortage of selenium would result in "Keshan disease". Selenium also has a preventive effect on the tumor.

Functions of iron enhanced nutrient salt.

Iron is the raw material of a cell, in particular it is the raw materials of ferrohemoglobin of red blood cells. The function of ferrohemoglobin is transportation of oxygen and carbon dioxide. It transmits the oxygen absorbed by lung to body cells, and also it transmits the carbon dioxide to lungs. When body is short of iron, it will cause

anemia with pale face. Iron is also an important composition of muscle, liver, spleen and bone marrow. Iron is the main composition of a number of enzymes (cytochrome enzyme, cytochrome oxidase), which can participate in the oxidation-reduction process in the body.

Functions of Calcium enhanced nutrient salt.

Calcium is the main component of the human body. 99% of the calcium is found in bones and teeth, with the last 1% is in body fluids. In addition, calcium has important relations with coagulation of blood, contraction of myocardial and involuntary muscle and the regulation of nerve cells. Calcium can reduce the excitability of nerve. When the concentration of calcium in body fluids is at a little lower state, the neuromuscular excitability increased, which may spontaneous muscle contraction. This phenomenon in medicine is called "tetany", commonly known as "convulsion."

the Function of riboflavin enhanced nutrient salt.

Riboflavin also named Vitamin B2 is an essential element of yellow enzyme, which is involved in bio-oxidation enzyme system. it can maintain body growth and development. Lacking of vitamin B2 will affect the bio-oxidation, which will be behaved as disordered metabolism, mouth ulcer, cheilitis, keratitis, scrotal inflammation, visual confusion, symptoms of cataract.

Zinc strengthens the functions of nutrient salt.

Zinc is the trace element essential for all living beings. It is richest than any other element in human cells. It is an essential component of protein. It also involves in the activities of gonads, pancreas, and pituitary gland. Deficiency of Zinc will leads to growth retardation or anemia. Metabolism of zinc has relationship with diabetes. For a variety of diseases such as tuberculosis, myocardial infarction, leukemia, refractory ulcers, certain types of cancer, high blood pressure, heart disease and cirrhosis, zinc also have very efficient.

In addition to the above mentioned nutrient salt, there are about 100 kinds of salt including low sodium salt, garlic salt, onion flavour salt, mustard salt, capsicum salt, pepper salt, seasoning salt, spices salt, seafood salt, and meat flavour salt, seasoning salt etc..

As early as the eighteenth century,

human needs have been divided into three categories by Engels: First, survival needs, the other is enjoyment and the third is development. Maslow, an American scholar, put forward as early as in 1940s that people's behaviour is driven by motive, and the motive is raised by need in turn. And he further suggested that people need have seven levels, the most basic needs is physiological need, and the highest is respect need. Physical need refers to the need to maintain and develop the individual lives with the outside world, such as air, sunlight, food, water and other needs. Of course, salt is an important and indispensable component in the physiological need. In other words, from a physiological sense, different nutrient salt have a vital link with the health of different groups of people. From the perspective of respect, people's consumption of nutrient salt is the need of respect.

## 2.2 Role of nutrient salt: Case study

Lack of vitamins and minerals in china is found common. Therefore, the nutrient salt is very important. Here we list a few typical cases for your reference.

First, Keshena disease can be prevented and controlled by supplementing selenium. In 1935, a large-scale occurrence of certain disease was found in Keshan County of the Songnen Plain in Heilongjiang Province. Patients are pale. Their hand and foot are cold and feel dizzy. They are also short of breath and nausea. It has a high mortality rate. At that time, no one could find the reasons. The disease could not be controlled, so the disease was known as Keshena disease. Later on, Jilin, Liaoning, Shandong, Tianjin, Inner Mongolia, Yunnan, Hebei, Henan, Sichuan, Shaanxi and other places have also patients with Keshena disease. After new China founded, the central government attaches great importance to set up a special research team to attack Keshan disease. Finally, The study found that Keshena disease was related with selenium. Since then, measures were taken to supplement selenium, Keshena disease was controlled.

Second, riboflavin can prevented esophageal cancer. June 28, 2001, "China Medical Tribune" disclosed that in 1982 ~ 1991, the Sino-US cooperation team conducted a double-blind trial of nutritional intervention in Lin county with observation sample of 29,584 adults. Using factorial



analysis methods, they were randomly divided into 8 groups, taking different vitamins and trace elements in 5 years and 3 months. The research found that riboflavin was able to reduce the incidence of esophageal cancer by 15%. In 2001, American Association for Cancer reported on the 92th Annual Meeting that: Among the samples in the intervention trial in Lin county, 498 cases of esophageal squamous cell carcinoma and 255 cases of gastric cardiac Aden carcinoma was reported between 1986 and 1991. Comparing their serum riboflavin in 1985, it was found that a increase of quartile will decrease the occurrence by 6%. This is the first time in a large-scale prospective study that proved the increase in serum riboflavin have certain relation with risk of cancer. In November 30, 1993, according to medical experts suggestion that Henan Provincial Health Department issued a Yu-Wei Disease Control (1993) document of No. 46, which agreed to monopolize the sale of riboflavin salt

Third, low-sodium is good for hypertension prevention and treatment. In May 9, 2006, the CCTV-2 broadcast "high blood pressure disease from the reports of the village" that in a village of northwest of Liaoning province, over half of the villagers are suffering from hypertension. By the observation and monitoring of experts from Ministry of Health, it was found that the people there have a habit of drinking, smoking and long-term consumption of single pork oil, which was the reason for such disease. Since then, the government departments provided low-sodium salt to the place, and the villagers recovered from the disease within two years.

In many developed countries, the nutrient salt has become a necessity for many families. such countries as the United States, Japan and Europe has developed much in the nutrient salt. Nutrient association of the United States promotes the health nutritional strategy, it points out that the most convenient and effective way is to make nutrient salt. In Europe, low-sodium salt has been quite popular. Seaweed salt, zinc enhanced salt, iron enhanced salt, calcium enhanced salt and other types of enhanced nutrient are growing rapidly. In Japan, low-sodium salt has been widely used and become a respected "three low-eating" as a new fashion. Nutrient salt has played a positive role in the development of health care these countries.

In 1997, China Salt Corporation issued "Notice on strengthening the management of a number of salt". It has made a series of provisions on the design, production, and transportation, planning and marketing of the nutrient salt. At the same time, It also hand out "Management Manual on nutrient salt", which provide a reference for the management of nutrient salt. In 2002, State Economic and Trade Commission issued "Notice on the management of nutrient salt," which clearly regulated that the management of nutrient salt was in the scope of the edible salt. It also regulated relevant provisions on the development, production of nutrient salt. The Government attaches great importance to the issue of public nutrition. In 2002, with the completion of " Nutrition improvement within a decade", the Office of the State Council issued "Notice on nutrition improvement in China ", which paved the way for the development of enterprises of nutrient salt .

### **3. WALK OUT FROM THE PITFALL OF NUTRIENT SALT PRODUCTION AND CONSUMPTION**

According to the average salt consumption, the Japanese consume 75 kilograms, the French 110 kilograms; American 220 kilograms while Chinese only 22 kilograms. China has a population of 1.3 billion with a annual sales of salt of 8.25 million, while the nutrient salt account for only 50-80 thousand tons, less than 1% of total. There are thousands kinds of edible salt in Australia, any edible element can be added to salt, where original edible salt are rare. Japanese seasoned salt series has over 240 kinds for customers to choose. The nutrient salt sales accounted for 5% of salt -15% in the U.S and the Japan. Therefore, the development of Chinese nutrient salt has promising market. We have now developed algae carrot salt, algae mushroom salt, algae low-sodium salt, algae calcium, algae Iron, algae zinc and other nutrient salt series. People begin to understand accept nutrient salt.

The fact that nutrient salt is healthy for human is undisputable. But the same time, it is a "double-edged sword". Not only should we look at its positive side, but we also have to look over its negative side.

### 3.1 Walk out from the pitfall of production

According to the Third National Nutrition Survey, the intake of calcium is obviously insufficient for Chinese people; the national average daily intake of calcium is 405 mg, which only account for 49.2% of the recommended requirement of RDA (recommended standard by Chinese Nutrition Society) of 800 mg. especially in the rural areas is 378mg while in urban areas 458 mg. The national average intake of calcium accounts for only about 50 percent of the RDA's statistic and about 47.25% in rural areas, 57.25% in urban areas. Among children, adolescents and pregnant women, the gap is widened with an average is less than 50%.

Hereafter the Ministry of Health announced the results of National Nutrition Survey that the Chinese generally are lack of calcium. And hence, many manufacturers began to offer calcium-contained products over 400 kinds at the market at the same time, which caused "War of calcium." After that the media revealed the unrealistic propaganda on excessive prices and impatience, thereafter calcium product manufacturers was in limbo and its sale plummeted.

Compared with the former cases, nutritional salt which bares the privilege of monopolization is a rising star. However, the current situation is still worrying. Because of the specificity of salt monopolization, many nutrient salt enterprises became deformed from born. many provincial and municipal nutrient salt manufactures blindly promoted different nutrient salt by administrative intervention in order to survive. They even were not sure about which kind of nutrient should be supplemented in specific area and crowd.

Therefore, manufacturers of nutrient salt are imperative to realize the following two aspects:

First, they should know which element is in most urgent need. For example, the deficiency of calcium is the most urgent trace element among Chinese. National average intake of calcium is only 50% of the standard of RDA of 800mg. The situation in Anhui, Zhejiang, Jiangsu, Shanghai, Shandong, Hubei, Jiangxi, Fujian, Hunan and other provinces are slightly better than others with average intake of 418 ~ 616 mg, which accounts for 52.25%~77% of the RDA standard. Such provinces as Hebei,

Heilongjiang, Yunnan, Hainan, Guangxi, Jilin, Sichuan, Inner Mongolia, Xinjiang and with even lower intake of 280-361mg, which accounts for 35%~45.13%, other provinces are in the middle. Another example, vitamin B2 ranks the second among the most urgent elements of Chinese. National average intake is 0.8 mg and accounts for 61.54%. The situation is general the same, only such provinces as Hunan, Guangxi, Shaanxi, Yunnan, Shanxi, Hainan, Inner Mongolia are worse.

Second, they should know which element is in less urgent need. For example, zinc is the less urgent need for Chinese. National average intake of zinc is 12.0 mg, has a 20% deficiency of the RDA standard, which is one of the nutritional elements lacked by most Chinese. Especially for children and young people, the situation is more serious and zinc deficiency has affected normal development of the intelligence and body height of children and youth. And another example, the Chinese is also lack of selenium. Chinese average intake is 42ug, 11.7% lower than the RDA standard. Due to geological features, 14 provinces and regions located from northeast to southwest are heavily lack of certain nutritional elements, such areas should pay more attention to the prevention of Keshan disease.

As the Chinese saying goes: "everyone is different""different areas nurture different people". When linked to the nutrients and health, as the common people are lack of awareness and understanding about their living environment and physical conditions, we cannot sell the nutrient salt to them for the interest of business, rather we should guide them to consume based on their recognition and understanding of their living environment and their deficiency of certain trace elements. If we cannot guarantee the healthy need of people and even may cause negative effects on human's health, the consequences would be a nightmare for nutrient salt manufactures one day.

### 3.2 Walk out from the pitfall of nutrient salt consumption

From the viewpoints of the traditional theory of Chinese philosophers on the material world, all material subjects are composed of fire elements as gold, wood, water, fire, earth. Under the same theory, human beings are also composed of a variety



of minerals and other elements. Therefore, in order to supplement nutrition, it is necessary to supplement the body according to the kind and quantity of the specific conditions rather than the notion that the more the better.

In developed countries, supplementing nutrients daily has become a habit for many people in their lives. It is the biggest expectation that we can solve the problem for ourselves in the past. People are rich now, but many people still lack of the awareness of their physical conditions. Even not knowing their own living environment and which nutrient element is in deficiency, they began to supplement nutrients arbitrarily, ignoring the fact that either excessive or not sufficient will cause certain diseases. In other words, we should look over the two side of a coin.

Therefore, as a general consumer, we should pay attention to the following two aspects:

First, we can consider the relationship among nutrients. Interaction, interdependence and mutual coordination between vitamins and minerals are very complicated. For example, the performance of iron excess will cause vomiting, heart failure, sexual dysfunction; selenium excess will thicken the nail and shed the hair. and, phosphate excess will cause the loss of calcium, copper excess will cause the loss of zinc.

Secondly, we can consider the relationship among different types of people. For example, according to the analysis conducted by the Chinese Nutrition Society on adult females, children, adolescents, middle-aged and aged about their diet structures, they scientifically concluded that more than 10 kinds of vitamin and mineral are necessary for daily consumption: for adult female, daily consumption should contain  $\beta$ -carotene 100 mg, vitamin B2 1 mg, calcium (Ca) 400 mg, iron (Fe) 12 mg, zinc (Zn) 5 mg, selenium (Se) 30 ug. Children, for adolescents,  $\beta$ -carotene 100 mg, vitamin B2 1 mg, calcium (Ca) 400 mg; iron (Fe) 8 mg; zinc (Zn) 10 mg; selenium (Se) 20 mg. for middle-aged and aged,  $\beta$ -carotene 200mg, vitamin B2 1 mg, calcium (Ca) 400 mg; iron (Fe) 6 mg; zinc (Zn) 5 mg; selenium (Se) 30 ug. From the above mentioned statistics that the nutritional element are generally the same except for  $\beta$ -carotene, vitamin B2 and calcium

Pressure and stress and long hours of hard work in modern life always exhaust us, while refined food will cause the loss of

nutrients and lead to nutrient deficiencies, which makes the "sub-healthy" status become the most severe problems for office workers. Although in theory, a balanced diet won't lead to serious nutrient deficiency, however, due to diet structures and dietary preferences are different, nutrient deficiencies or imbalances are common phenomenon. On the other hand, for fear of the deficiency of trace elements and minerals, the blind use of nutritional supplements is also undesirable, because it easily inverted "the balance." Nutritionist informed us that daily intake of trace elements and minerals from nutrient salt are the best way. Due to the constraint of different physical conditions, the daily consumption of salt is limited, adding trace elements and minerals into the salt will not cause people to consume excessively or deficiently.

### 3.3 The inspiration of "barrel theory"

Scientific studies have proved vitamins and minerals are essential nutrients for human's lives and health, but it can't satisfy the requirement just by daily diet, so we should supplement necessary nutrient elements and minerals manually. Currently, the Chinese nutrient condition is insufficient, we need to supplement to some extent. If not, we won't need to supplement at all. All of the nutrients are interrelated within our body. In this regard, the authoritative has described it as "barrel theory".

The theory goes that one barrel is composed of many pieces of wood, and the quantity of containing water depends on the shortest one. If the barrel wants to be full of water, each one should have the same high. Or there will contain only half of the barrel when one plank has only half height. By the same reason, the absorption of nutrients in our body needs the proper proportion. Otherwise, it will affect the other nutrient absorption if lack of certain nutrient elements. People's absorption of various nutrients should have appropriate proportion, so does the function of human body, which need the cooperation of various nutrients. Whether its function is normal and effective depends on the deficient nutrients. The quantity of all kinds of nutrients has regular proportion in our bodies. While the proportion is balanced, they will play the full role as nutrients and achieve the best result, which is the same as the barrel theory. Otherwise, lacking one

nutrient element even others are sufficient, all nutrients cannot give full play. The effect will not be ideal, just as the one plank of half height. As a result, in order to supplement necessary nutrient for health, we should provide the missed ones rather than the viewpoints of the more the better the better.

#### **4.CONCLUDING REMARKS**

Human health cannot be separated from the role of nutrients, we have to intake a certain amount of nutrients from food in order to ensure the body's daily needs. The maintain of life needs the support of nutrients. Nowadays, people's life are in the fashion of "law of natural beauty" and "green living" and other popular fresh vocabulary, the nutrient salt indeed can be called "edible cosmetics". A solid white teeth is inseparable from the calcium as a "tooth elements", zinc makes "the flower of youth" bloom, zinc,

selenium has the effect of anti-lipid peroxidation, which can clear radicals in the body, make skin soft, smooth, and no wrinkles. In short, nutrition is the "panacea" to maintain youth and postpone aging.

China Salt Guoben Co., Ltd is the only subsidiary enterprise of CNSIC producing nutrient salt. There's no arguing that Guoben was not only in the right place at the right time, and also bear the responsibility of leadership in nutrient salt enterprise. It is the bounden duty of CNSIC as well as Guoben to make profound understanding the relationship of between nutrient salt the health of Chinese people, how to grasp the dynamic market of nutrient salt and how to "lead the modern salt industry, and create a better life". Guoben will live up to the expectations of people across the country whenever.