

## Past, Present and Future of Jilin Ginseng Development

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China has a long history of ginseng cultivation. It is an ancient country of ginseng production. Jilin Province in China has the largest area of ginseng production in the world. Changbai Mountain area in Jilin Province is the unique and best natural condition for ginseng growing. Ginseng here is with high unit area yield and good quality. There are many ginseng research institutes and world largest national ginseng farms and processing factories in Jilin Province. The ginseng processing products have good quality and high bioactivities.

### **China is the Country which Began to Apply Ginseng Earliest in the World**

China has over 4000 year history in using ginseng as medicine. "Ginseng is produced at Shang-dang" (namely around present Changzhi and Licheng counties of Shangxi Province) as recorded in the Chinese Materia Book which was written in Han dynasty. The ginseng efficacies were found in it as following, sweet and slightly cool in property, mainly replenishing the five internal organs, tranquilizing the mind, calming the soul, tranquilizing the palpitation with fear, removing the unhealthy trends, improving mental power, prolonging the life and relaxing the body if taking it long-term. It is thus clear that ginseng was reputed in curing diseases that time.

Ginseng was discovered in the northeast of China later than in Taihang mountain area. After Tang dynasty, the tribes living in Shonghua River and Heilongjiang river areas often took Changbai Mountain ginseng as tribute to pay Zhongyuan (central plains).

Ginseng was discovered and put into application

thousands years ago. It played a remarkable role in strengthening health and preventing diseases. Even these efficacies were described with a element of mystery and wonder. However, the revealing of its real function, searching for its effective substances and discussing its mechanism were started only last hundred year ago. Many scientists from China, Japan, Korea, Soviet Union, United States and others, who devote themselves in studies on ginseng, have made a great attainment in all the respects.

**History of ginseng cultivation :** Ginseng cultivation from wild ginseng in China was started with ShiLe, the king of HouZhao in the west Jin dynasty(early 300 A.D.). ShiLe engaged in trade and sold wild ginsengs. In fear of ginseng going bad, he planted the wild ginseng in the garden. From then on the wild ginseng became cultivated ginseng gradually. The cultivation of ginseng has already a 1660 years history.

Before the foundation of the People's Republic of China ginseng was cultivated only in a small number of counties in Jilin Province, such as Fushong, Ji-an, Ingyu, Changbai, Tonghua, Antu and Huadian. The development of ginseng production was very slow. After the foundation of the People's Republic, the development of ginseng production became very fast. According to 40 year's figures in 1990, the area of ginseng cultivation increased 72 times of that in the early period of the People's Republic; the output increased 300 times. That means that the output increase was three times more than the area increase. It is believed that with the development of human health course and improvement of the living standard of Chinese people, ginseng would be required more and more.

### Scientific Research and Production of Jilin Ginseng

In Jilin Province, there are many institutes engaged in the research on the technique of ginseng cultivation and there are many experts and professor in universities and colleges who study on processing technology of new ginseng products. The items are as follows: the technique of improving quality and increasing the yields, the technique of sunshading for ginseng cultivation, the technique of pretreatment of ginseng seeds, the prevention and cure of ginseng diseases and insects pests, the irrigation of ginseng fields, the technique of planting ginseng in croplands, the reuse of old ginseng fields, the technique of the culture of ginseng tissues, the machinery of ginseng planting, etc. Jilin Province is advanced in the study on the cultivation of ginseng. For instance, concerning the techniques of yield increase, we put forward the methods of cultivation of ginseng, directive cultivation, purification and rejuvenation, rational close planting, increase of effective substance in ginseng roots, etc. Many new technical methods were invented related to ginseng sunshading recent years. Especially many new ideas were put forward on ginseng illumination. For example Changbai County summarized the technical methods that on the base of imitating the traditional cultivation, intensive preparation of fields, slant planting with two rows in a big ridge, using attached photo-adjusting sheds, scientifically applying water and manure and keeping full stand of seedlings were carried out. The optimum method for ginseng illumination was obtained with the modern survey means according to botanic principles, thus providing theoretical basis in ginseng illumination to increase ginseng yield.

In the past, ginseng cultivation was at the cost of cutting a large stretch of forests and moving the ginseng farms year after year. The land had to be left unused after ginseng harvest. The reuse of old ginseng land is a task which brooked no delay. Through many year's investigation on the spots and analysis on the soil of the land in physical and chemical properties, biochemical activities; microbes

and ferments, ginseng experts have put forward a whole set of practical measures for the reuse of old ginseng land. Besides, there are still several methods, such as the use of organic manure, improvement of the soil, fertility and texture, development of the biological adjustment by the rotation of green manure crops. These are all showing initial success.

### The Processing of Ginseng Products

In the past, Jilin ginseng were mostly sold with big package as raw material. Recently, ginseng processing has entered the stage of finish processing and multiple-purpose development. The finish products using ginseng as raw material has five series including more than 400 kinds of products. The reputation of these products becomes higher and higher. The second processing of red ginseng filled in the gap in Chinese ginseng processing history. The Changbai Red Ginseng developed by Fushong Ginseng and Pilose Alter Company won the gold prize in the International Fair of Inventions hold in Youlika of Belgium in October of 1987. The Xinkaihe Red Ginseng developed by Ji-an Ginseng and Pilose Alter Company won another gold prize in the Fair of New Technological Inventions held in Geneva in April of 1988. The Huangfeng Ginseng developed by the First Ginseng Farm of Jingyu county won the gold prize once more in the International Fair of Inventions held in Beijing in October of 1988. The Changbai Ginseng developed by Chanbai Ginseng Farm won the first-rate prize of technical progress given by Agricultural Ministry of China in 1989. The Tianchi Ginseng is also of a famous brand. These five famous brands all represent their own series of products respectively. Fushong County enlarged the investment for the ginseng processing since 1987. They trained many specific persons and introduced new techniques. The utilization of ginseng developed rapidly. Until 1990, the finish products had reached over 90 kinds, thus forming a series of products from single products. As the production and processing of ginseng progress, the development of the multiple utilization of ginseng has entered an updating stage.

The usage of ginseng has been enlarged from medicine into tonics, drinking, daily chemical and industrial products. Many of these products have ready markets at home and abroad and deeply loved by costumers.

The amount of gineng exported into international markets represents in the order of 70%, of which about 70% is from Jilin Province. Jilin ginseng is on sale in dozens of countries and regions around the world.

### **The Future of Development of Ginseng Production**

Within recent years, the production of Jilin ginseng has made great progress. As the development of new technical revolution goes ahead, science and technology play a greater and greater role in the economical development and society progress. The production of Jilin ginseng must rely on progress of science and technology to increase unit area yield and product quality as an important point. We plan to take the policy that the cultivation of ginseng is properly centralized in region, kept relatively in unchangable area and developed concomitantly in proportion according to the plan.

From now on, we are going to adjust the structure of ginseng production and formulate approp-

riate policies to strengthen the macro-management. What is more, we are planning to extend and spread the advanced and appropriate technique to increase the unit area yield and internal quality of ginseng, improve the quality of processing products and decrease the costs, multiple-utilize the ginseng through finish processing, so as to economize the resources of ginseng land, to keep the balance of ecosystem, open up the usage and marketing of ginseng, improve the economic benefit and develop ginseng production healthily.

From long term point of view, we will develop new and fine varieties to populize in the production with good measures. The targets for choosing fine ginseng varities should be focused on high content of effective components, good effect of medical usage, strong resistance to ginseng diseases, good quality and high yield. At same time, we will work hard at the research on new techniques and methods of breeding to shorten the cycle of breeding new and fine varieties.

In brief, Jilin ginseng production will be certain to develop healthily, representing the superiority of the resources of Changbai mountain areas. The prestige of Jilin ginseng will be increased. The production of Jilin ginseng will make even greater contribution to the health and medicine of human beings.