

Divine Herb Grown by Wind, Water & People

GOD GIVEN
KOREAN GINSENG



Korean Ginseng, Our People's Pride



Korean Ginseng has a history of about 1,500 years and has been regarded as the best medicine developed by nature, people and time. However, it is sad to value Korean Ginseng only because of its medicinal effects. 《God Given Korean Ginseng》 is an introductory book focused on the hidden stories of Korean Ginseng.

Do you know that Korean Ginseng in ancient times was as popular as the new smart phones these days? Our ancient sages even burnt precious ginseng to protect its reputation and values. Korean Ginseng was a significant source to strengthen the Korean empire's military power and to procure funds for the independent movement. Korean Ginseng has left us with many interesting stories related to culture and economy.

South Korea is the country from which the world-recognized Korean Ginseng originated. We have published 《God Given Korean Ginseng》 to set and introduce the real values of Korean Ginseng. There are numerous stories of Korean Ginseng that saved our people and nation. I expect it to be an opportunity to understand the values and reputation of Korean Ginseng as we share valuable stories with readers.

October, 2016

Minister Kim Jaesoo

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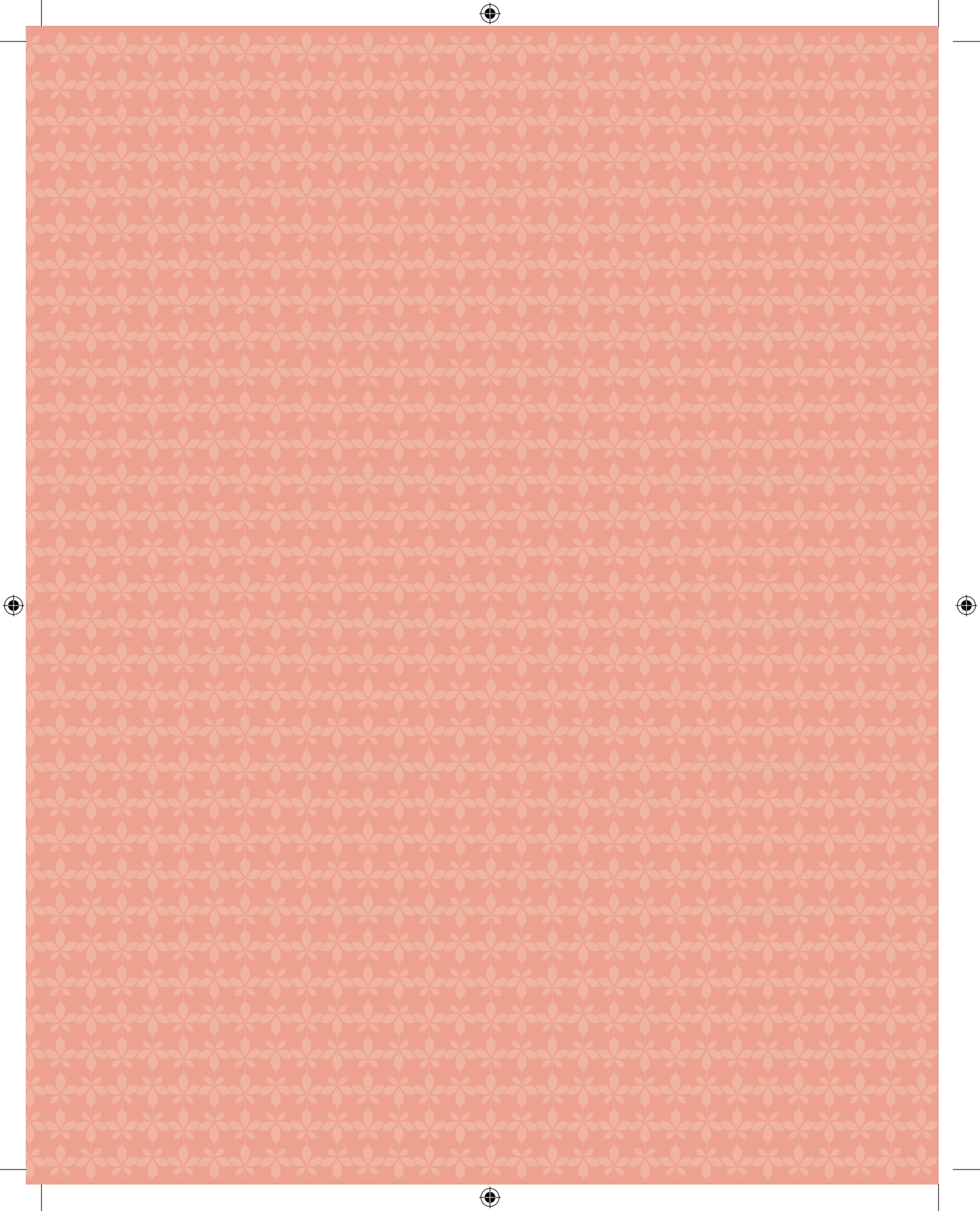
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Ginseng is the Root of Life

- Shim : The Root of Ginseng
- The Ginseng Revolution: Cultivating Ginseng
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Shim : The Root of Ginseng¹

There have been controversies on the English name of the country, 'Corea' or 'Korea'? It is said that it was originally 'Corea', but Japan had changed it to 'Korea' to prevent the country from entering the London Olympics(1908) before Japan. This cannot be true, but it has proven that the name has significant implications. As well, there are many theories regarding the name of ginseng. Some suggest that it came from China while others say that it is an English name derived from Japanese. Since revealing the object name is like searching for its origin, it is necessary to clearly inquire the facts. In our native tongue, ginseng is 'shim'. In China and Japan, it is written as 'sam(参, 蔘)' in Chinese characters. Currently, we use 'in-sam(人蔘)' instead of 'shim', and it is only used to name the Korean Ginseng.

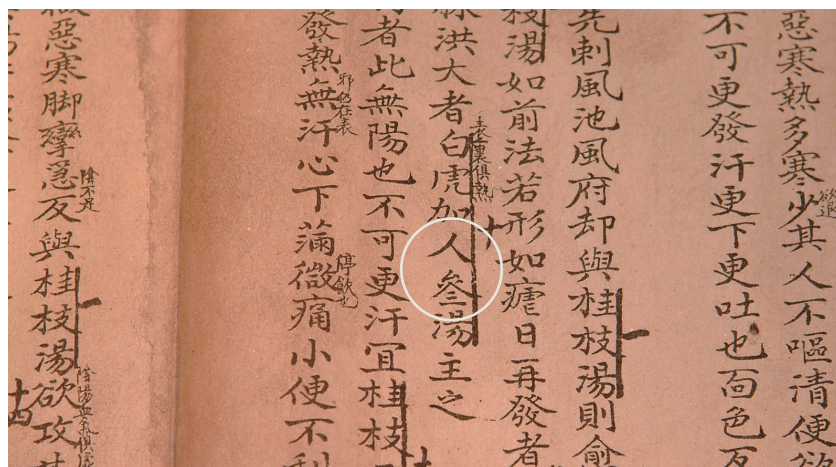
According to Chinese ancient documents, there are 6 characters that represent ginseng – 参 · 蔘 · 寢 · 寢 · 浸 · 侵. The first character used is '参' and it appears in 《Jijiuzhang(急就章)》 written by Sayu(史遊) in the earlier Han Dynasty. We originally used '人蔘', but it changed to '人蔘'

in the late Joseon Dynasty. It is predominantly known that ginseng came from China based on the evidence that the Chinese character ‘sam’ first appeared in Chinese documents. However, this view seems unreasonable because ginseng naturally grows in the Korean Peninsula and Manchuria. Also, it is totally illogical to exclude the peninsula in explaining the ginseng origin when it is where Korean Ginseng is produced, as it is recognized by China.

‘Sam’ originated from ‘Shim’

Ginseng has been cultivated throughout the Korean Peninsula, but we could not write it in our own letters since we had no Korean characters before King Sejong(世宗大王). ‘Sam’ first appeared in Chinese literature in the earlier Han Dynasty when the Four Commanderies of Han was established. The Four Commanderies of Han is a county in the Northwestern area of Korea, then called Gojoseon, established by Wutü in the earlier Han Dynasty. The exchange of culture and products was active between the ancient countries of China and Korea. At that time, ginseng from the peninsula was introduced to China. It is said that it appeared in Chinese documents because its effects as a valuable medicine was well known.

From old times, our ancestors called ‘shim’ to ginseng. The oldest document where ‘shim’ appeared is 《Guguepganyibangeanhae(救急簡易方諺解)》 published during the reign of King Seongjong(1489). In the document, it was written as ‘人蔘’ and translated into ‘shim’. The Korean translation of ginseng in the language textbook, 《Nogeoldaeanhae(老乞大諺解)》 is



- Jang Jung-gyeong mentioned 'Ginseng (人參)' as one of the essential sources of Korean medicine in 《Sanghanron》 in the late Han Dynasty.

also 'shim'. In 《Donguibogam(東醫寶鑑)》 written by Heo Jun(許浚), it was written as 'shim' under '人蔘' for 'Insamjo'. It was also referred to as 'shim' in 《Mulmyeonggo(物名攷)》 written by Yu Hui(柳僖). We do not know how 'shim' originated, but we do know this word that passed on from generation to generation to name ginseng.

When objects are introduced, their names naturally follow. The same principle applied to 'dambae(tobacco)' coming from 'tobacco', 'nampo' from 'lamp' and 'naembi(pot)' from 'nabe'. Likewise, when ginseng was introduced to China, its name from the native place might have followed. A new character might have needed to write down 'shim' when it first came into Korea. One of the characters that had the same pronunciation as the original word must have been chosen. For this reason, 6 characters(參·蔘·寢·寢·浸·侵) that are pronounced as [síam] in Chinese and are similar to 'shim' were used in Chinese literature. Especially,



- Do Hong-Gyeong categorized 365 types of herbs as high, mediocre and low quality in 《Shinnongbonchogyeong》 in the Yuan Dynasty and categorized ginseng as a high-quality medicine. It is said that ginseng strengthens the five digestive organs in the body, brings peace to the mind, and removes bad energy.

according to a paradigm of the Korean alphabet arranged as a syllabary (a combination of two Chinese characters to represent another sound), ‘sam’ is read as ‘sochim(疏侵)’. When it is read in Korean, it becomes ‘shim’, supporting the theory.

Despite the above, it has been widely accepted that ginseng originated from China based on 《The History of Ginseng(人參史)》 written by Imamura(今村). That was accepted without doubt as the book was cited and recited in Korea. However, the ‘Joseon Ginseng’ theory is becoming more convincing as there are doubtful views of the Chinese ginseng theory from history scholars.

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What is the origin of 'Ginseng (scientific term)'?

Where does the scientific term, ginseng come from? Some claim that it derived from the Japanese pronunciation of ginseng, so it should be corrected to 'insam'. However, this claim is not true. From ancient times, the Japanese people called it as 'gorai ninjing(ごうらいにんじん)', 'Ninjing(にんじん)' meaning carrot, 'Gorai(ごうらい)' which refers to Goryeo(=Corea) is combined to express ginseng. According to the ancient Japanese dictionary, 《Hwahansamjaedohoe(和漢三才圖會)》 published in 1713, ginseng is written as 'yimusomu(いむそむ)', and as 'insohn(いんそん)' in 《Joseonmuleo(朝鮮物語)》. As shown in the literature, the Japanese pronunciation of ginseng differs a lot from 'ginseng'. Ginseng is pronounced 'renschen' in Beijing, China. Then, where did it come from? Ginseng was made official by a Russian scholar named Carl Anton von Meyer, when he registered ginseng as '*Panax ginseng* C. A Meyer' in the International Society of Plant Biologists in 1843. 'Panax' means cure—all as combined with 'Pan' that means 'everything' and 'Axos' that means 'medicine'. Other scholars before Meyer also classified ginseng under 'Panax'. In 1754, a systemic botanist, Carl von Linne called ginseng Panax, meaning cure—all. Then, the western ginseng grown in southern Canada was named '*Panax quinquefolius*' by adding Latin words, Quinque(five) and Folius(leaf) to Panax. When the first ginseng was found in North America, its name was given and it was distinguished from the oriental ginseng. In 1800, Jie Bold from the Netherlands named Korean Ginseng '*var. coraiensis*' by adding 'Coraiensis' which means Korea, the Japanese ginseng(Japanese seng) as '*var. japonicus*' by adding 'Japonicus' which means Japan, and '*var. nepalensis*' for the ginseng that grows in Nepal, considering them as

variants of ginseng.

After that, a German scholar, Nees von Esenbeck named Korean Ginseng as '*Panax shinseng* var. *coraiensis* Nees' in his book 《Icones Plantarum Medicinalium》 in 1833. In other words, he differentiated any ginseng that grows in Asia from *Panax Quinquifolium* in North America, and recognized it as a new type called '*Panax shinseng*'. Shinseng comes from [xiangshen], the pronunciation of sangsam(祥蔘) which is the earlier form of ginseng known in China. It seems that the pronunciation changed from 'Shinseng' to 'Ginseng'. The scientific term of ginseng derived from the Chinese pronunciation instead of our native tongue, 'shim' because ginseng was introduced to the West through China. If Nees had registered it earlier, '*Panax shinseng* var. *coraiensis* Nees' in consideration of Goryeo would have been the official term, enhancing the status of Korean Ginseng.

Ginseng only indicates Korean Ginseng

One important fact is that ginseng only indicates Korean Ginseng as shown in the botanic classification. It is wrong to call ginseng the seng from America, Canada and Japan. Classified as pseudo-ginseng, only generic characters are the same. *Panax* species naturally grow in East Asia and Northeastern American regions. It grows at 85~140° east longitude and 22~48° north latitude, and the Korean Peninsula, Manchuria, Maritime Province, Japan and Nepal are included. It naturally grows at 70~97° west longitude and 34~47° north latitude in North America. Although ginseng is naturally grown in the northern hemisphere, it can

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be also grown in the southern hemisphere, such as Australia and New Zealand. It implies that ginseng can be grown anywhere in the world under proper conditions, including temperature, climate, sunshine and precipitation.

However, although shapes may be similar, there are great differences in their medical properties(藥性). The American seng, Japanese seng and tienchi seng that are included in the ginseng family are commonly referred to as ginseng, but strictly speaking, they are not ginseng(Korean Ginseng). Although seng from other countries is included in *Panax*, their species are different. There are big differences like onions and garlic, or cucumbers and oriental melons. In other words, as the scientific term of garlic, onion, cucumber and oriental melon is '*Allium sativum*', '*Allium cepa*', '*Cucumis sativus*' and '*Cucumis melo var. makuwa*' respectively, Korean Ginseng and western ginseng are totally different. Although both fall under *Panax*, '*Panax ginseng*' refers to Korean Ginseng, while '*Panax quinquefolius*' refers to the western ginseng. There is only one type of ginseng, Korean Ginseng. Just like the use of garlic—onion and cucumber—oriental melon differs, strictly speaking, Korean Ginseng differs from the western ginseng(*panax quinquefolius*). It is necessary to clearly distinguish their names according to scientific classification.

The Ginseng Revolution: Cultivating Ginseng

Cultivating instead of gathering ginseng from mountains? This is one of the revolutionary changes in the history of ginseng. It is uncertain when we first started growing ginseng. Based on ginseng cultivation techniques mentioned in the collections and agricultural documents of Joseon Dynasty, it is assumed that it had been widely spread from the early 18th century. Meanwhile, Japan states that ginseng cultivation begun in Japan based on 《Insambo(人參譜)》(1737) and 《Insamgyeongjaggi(人蔘耕作記)》²(1747) written by Sakanoue Noboru(坂上登). Sakanoue Noboru was assigned as an official of the shogunate government in 1759, and as a ginseng expert, he supervised and test-cultivated ginseng at Mt. Nikko(日光).

Japanese agricultural books related to ginseng were published earlier than 《EeojasamgisANJI(御製蔘芪山識)》 that was written in 1770 by order of King Yeongjo(英祖). However, the 《Insambo》 preface reads, “the ginseng stories he recorded are tips for ginseng cultivation and production in Joseon that were previously revealed and systemized”, showing that ginseng cultivation had already started in Joseon. It tells us that ginseng

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cultivation in Joseon had begun before the 18th century.

Unparalleled techniques for ginseng cultivation

It is not difficult to guess that ginseng was cultivated in Joseon before the 18th century based on records regarding cultivation methods questioned to Joseon envoys that visited Japan in 1719. Korea and Japan exchanged questions and answers on ginseng cultivation probably because Japan had known that ginseng was cultivated in Joseon. Until the early 18th century, Japan did not know ginseng ecology, so it ordered the Tsushima (Daemado) office to draw its shape in detail. There is a record in the main Tsushima family document that the shogunate government ordered the Tsushima office to draw ginseng in 1719. Cultivated ginseng appeared in the collection of works and agricultural books written by scholars in the late 18th century. It is not easy to figure out the characteristics of perennial plants like ginseng unless you have lots of experience. Therefore, it seems that ginseng cultivation was officially introduced after several trials for a long period of time. The 18th century Joseon literature contains



- The 4th Joseon envoys entering Edo Castle in parade in 14th year of Injo(1636). Source: National Museum of Korea

ginseng cultivation techniques such as planting ginseng seeds, choosing the right soil, preventing harmful insects and ways to store ginseng, and they are commonly used now because of their detailed description. Without decades of cultivation experience and practice, that could not be possible done. So, it may be assumed that ginseng cultivation in Joseon begun in the late 17th century at latest.

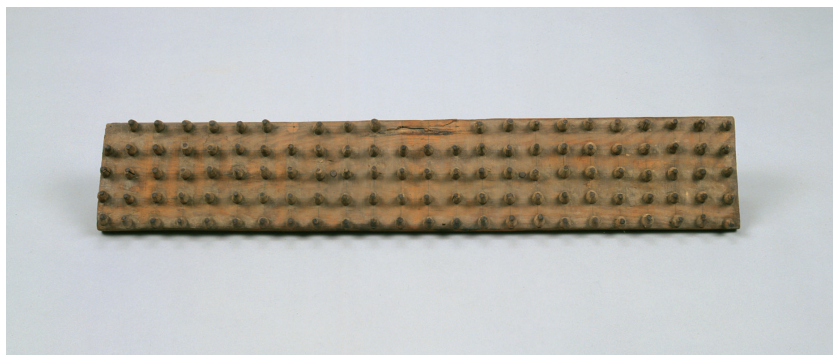
Why did ginseng come down to fields?

There may be 2 reasons for ginseng cultivation in Joseon. Firstly, as the evil effects of ginseng tributes(蔘弊) got worse, people might have secretly started cultivating ginseng. It was difficult to meet the natural ginseng requirements as demands for ginseng and medicines for civilians increased. Owing to the unbalanced demand and supply, it was not easy to meet the amount of three excellencies(蔘貢) imposed to specific regions, and many indictments occurred during the process. The evil effects of ginseng tributes increased as there was not sufficient ginseng and that might have resulted in ginseng cultivation. There are many reports by provincial governors of each area, including the Pyeongando border, complaining about the evil effects of ginseng tributes described in 《Goryeosajeolyo(高麗史節要)》, 《Annals of the Joseon Dynasty(朝鮮王朝實錄)》 and 《Records of the Border Defense Council(備邊司謄錄)》. They reported people's suffering caused by heavy taxes and requests for three excellencies as ginseng became more invaluable.

Also, there is a record that shows how ginseng became so valuable. In 1707, Lee Yi-myeong(李頤命) submitted a report stating that domestic/

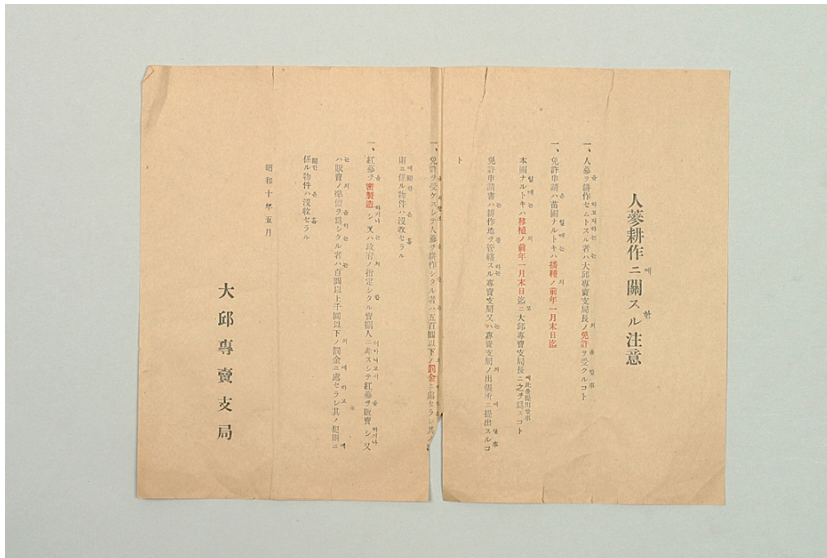


- Pickaxe used to collect ginseng in ginseng farms. The tool is not used in other types of farms.
Source: National Folk Museum of Korea



- Jaejongcheonhyeolpan(栽種穿穴板) is a farming tool used to sow ginseng seeds. It has tips for making holes on the ground with a grip over the panel. Source: National Folk Museum of Korea

foreign(中外) ginseng had become so valuable that it could barely meet(需用) public and private demand. It demonstrates the situation in which ginseng was excessively collected as demand increased. In addition, he proposed a measure to cope with the situation, “Send textiles(稅布) and



- Leaflet explaining ginseng cultivation care published by Daegu Jeonmaejiguk in 1935. Source: eMuseum portal

cotton(貢木) from Gwanseo(關西) to the river border(江界), purchase ginseng at market prices(時價), transport it to Hojo(戸曹; similar to the Ministry of Finance and Economy) and get ready to meet the national ginseng demand.”³ Secondly, people may have started cultivating ginseng for its potential profitability. This is because ginseng prices skyrocketed owing to increased demand and the difficulty in gathering wild ginseng. Gu Yoon-oak, the Minister of Hojo during the reign of King Jeongjo (1777) expressed his opinion in 《Ilseongnok: Records of Daily Reflection(日省錄)》. “Ginseng prices(蔘價) went up not because of government use(公用), but because private houses(私家) have been using ginseng 10 times more than before.”⁴ Also, as ginseng accounted for a big proportion in the trade with China and Japan in the 16th and 17th century, a tremendous amount was exported,

drastically increasing the price. There is a possibility that people started ginseng cultivation for commercial reasons. Considering the situation then when Jeong Yak-yong(丁若鏞) recommended farmers to cultivate high-return crops in 《Gyeongsaeupyo(經世遺表)》, it is likely that ginseng was one of those popular crops to be cultivated.

400-Year heritage of our ancestors

It is assumed that ginseng cultivation begun with ginseng tributes and then expanded by the market supply and demand. Taking into account records of that time, there were attempts to cultivate wood-cultivated ginseng, although very little, in the late 14th century or the early 15th century when the effects of ginseng tributes were harmful. The ginseng field cultivation adopted these days was known to farms in the 17th century, and it may be generalized in the 18th century. Trade with China and Japan, the biggest markets in the late 18th century were active, resulting in mass production. Only professional ginseng farmers can produce ginseng. Advanced ginseng cultivation techniques were not developed by the government, but by our people's experience and efforts for years. Owing to the proud heritage passed on from our ancestors, we are still continuing the distinction of being the country of origin of ginseng.

Ginseng Cultivation: When and Where did it begin?

As ginseng cultivation became possible, ginseng established as a high-value product for farmers. Then, where is the first ginseng field? There are different opinions on this, but Hwasun, Punggi and Geumsan are suggested.

Dongbok-hyeon, Hwasun

The origin of ginseng cultivation is described in 《Hongsamji(紅蔘志)》, Sohodang collection written by Kim Taek-yeong(金澤榮) in the early 20th century. Based on the information obtained from his parents who were Gaeseong and Hanyang officials, and government records he received as he participated in the publishing of 《Munheonbigo(文獻備考)》, he explained, “The daughter-in-law of Official Kim who lived in Dongbok-hyeon, Jeolla-do planted wild ginseng seeds and Mr. Choi spread them, thus cultivated ginseng came into the world.” There is a

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story of Mr. Choi in Dongbuk-hyeon, Jeolla-do who sowed ginseng seeds to cultivate ginseng that was recorded in 《Munheonbigyo》(King Yeongjo, Year 46, 1770). Kim Taek-yeong's statement is based on the above. Dongbok-hyeon, Jeolla-do is currently Dongbok-myeon, Hwasun-gun, Jeonnam, and there is Mohusan(mountain). Jang Ji-yeon(張志淵) also explained that ginseng cultivation started in Myeongreung, Kim Sukjong and spread to the Gaeseong people in 《Uiammungo(韋庵文稿)》.

《Junggyeongji(中京誌)》, published in 1914, introduced Gaeseong products, including ginseng, wedding vine, pine mushroom, white porcelain and smooth cranberry bush, and delivered similar stories. 'Section: Local Products' of《Junggyeongji》was written in reference to Kim Taek-yeong's writing, which shows that Hwasun theory started from Kim Taek-yeong. 《Junggyeongji》contains additional information based on 《Songdoji(松都誌)》 published in 1648 and 《Junggyeongji》revised by Jo Gyeong-ha(趙敬夏) from Gaeseong in 1881. As previously mentioned, 《Hongsamji》records facts till 1908, including how to plant ginseng seeds, and ginseng tax and trade. Based on the above documents, Hwasun-gun claims that it is the first region where ginseng cultivation started. Some ginseng diggers perform ancestral ceremonies before going into the mountains at Mohusan in October every year.

Punggi

There is another theory that ginseng cultivation started in Punggi, Yeongnam. There are no records, but only a legend about how Punggi governor, Joo Sae-bung(周世鵬) started cultivating ginseng. According

to the legend, Joo Sae-bung was appointed governor in 1541. He developed cultivation methods to help people in misery because of ginseng and spread them to farmers. It is said that he was appointed Hwanghae-do governor 10 years later and cultivated ginseng, but the story was handed down orally without records. There are no records in Punggi probably because they were worried that they could be harmed when it was disclosed that they replaced wild ginseng with cultivated ginseng.

A similar story to the governor's ginseng cultivation is described in 'Volume 3' of 《Goyedangpilgi(古芸堂筆記)》 written by Yoo Deuk-gong(柳得恭). "Cultivated(farmed) ginseng is sold in drug stores every year. It is cultivated in Yeongnam. It may not be as good as wild ginseng, but it is 2/3 less expensive. People taking this ginseng feel easy. Shim Hong-gyeong from Chungju told us that people learned to cultivate ginseng ... Yeongnam people cultivate ginseng just like other vegetables. People started learning the method(慕風) for it was useful, and sold their cows and fields to grow ginseng. They sometimes became rich. This spread to Chungju."⁵

According to the above literature, ginseng cultivation that started in Yeongnam spread rapidly and made people in Chungju start ginseng cultivation. Back then, wild ginseng was priceless and there were negative effects of ginseng as trade with China and Japan increased. Yoo Deuk-gong revealed his intention of publishing ginseng cultivation methods. "Ginseng is not only in mountains, but it can be planted(種). If people can plant and obtain ginseng, why cannot be done in all regions(八路). If there is sufficient ginseng, people will not be in distress and it is a good thing. So I will record the method for people who wish



• First Punggi ginseng cultivation site(Gaesamteo).



• Memorial stone of the Punggi ginseng association.

to cultivate ginseng.”⁶

《Haedongnongseo(海東農書)》 written by Seo Ho-su(徐浩修) contains similar records. “It was directly(今俗) cultivated, or wild ginseng(山蔘本) was transplanted(移種), or ginseng was chosen(取子) for cultivation. It started in Yeongnam(嶺南) and spread nationwide. This is called cultivated(farmed) ginseng(家蔘).” He stated that ginseng cultivation begun in Yeongnam and quickly spread to other regions.⁷ Yeongnam is originally named ‘Nasam(羅蔘)’ from the period of the Three States, and China recognized the ginseng quality there. Here, Nasam is wild ginseng. It is assumed that Yeongnam people started ginseng cultivation when there was not enough Nasam to be presented to the government.

Guemsan⁸

《Sejongsillokjiriji(世宗實錄地理志)》 contains details of 330 districts(-gun/-hyeon) around the country where herbal medicines were found in. However, Geumsan was not included. 《Shinjeungdonggukyeojiseungram(新增東國輿地勝覽)》 published in the 25th year of King Jungjong (1530) records Geumsan where ginseng was produced. Jinsan-gun near Guemsan was incorporated into Geumsan-gun in 1814, and it is now Jinsan-myeon, Guemsan-gun implying that ginseng was produced in Guemsan. As it is not included in 《Sejongsillokjiriji》, Guemsan might have not been rich in wild ginseng. It seems that ginseng cultivation got popular in Geumsan and it settled as the home of ginseng.

There is no literature that accurately records the origin of ginseng cultivation in Geumsan. Unlike Punggi and Hwasun which are recorded in 《Munheonbigo》 and 《Junggyeongji》, the Geumsan story was delivered through the press. According to 〈Korea Daily News〉, “Ms. Kim, the widow who lived in Sangoak-ri, Guemsan-myeon, picked bright-red fruits hanging on 3 five-leaf branches in Jinaksan in 1460, and planted them in her garden. Buds grew from the ground in spring the following year and cultivated them for years. Her only son got an incurable disease at age 10 and no medicine in the world could cure the disease; however, after taking ginseng roots he was cured. As the story spread, there was an increase in the number of farms growing ginseng.”⁹ The same story was also published in 〈Korea Daily News〉 with different characters. “The 6th generation child of Gang Bang-hwan(Jungdo-ri, Guemsan), Gang Deuk-mu lived in Gyejin-ri, Guemsan-myeon at the foot of Jinaksan. He collected wild ginseng from Gwannambong and started cultivating ginseng with them.”¹⁰



• Gaesamteo park developed by Gumsan-gun.

〈Korea Daily New〉 articles that delivered the origin of Geumsan ginseng are similar to Hwasun tales. An industry pioneer in Guemsan, Hosokawa Ganji(細川治一) stated the following in 1929(細川治一). “Kim Rip brought ginseng seeds from Gaeseong in 1770 and started making seedbeds. As he became successful, he began selling seedlings to Gaeseong ginseng dealers.”¹¹ As stated by Hosokawa, there is a possibility that Guemsan became a ginseng producer in the late 18th century. In the late 18th century, ginseng cultivation was widely spread to other areas, just like Yeongnam. Ginseng was introduced as one of major local products in 《Guemsanguneupji(錦山郡邑誌)》 published in the late 18th century. A newly introduced article implies that ginseng cultivation was prevalent afterward. Gaesamteo, where ginseng cultivation first started, is currently located in Seonggok-ri, Namyi-myeon, Guemsan-gun.

Raw Ginseng, White Ginseng and Red Ginseng – What is Your Real Name?

Ginseng has several names that go along with its great reputation. Then, what are the differences among raw(fresh) ginseng, white ginseng and red ginseng? First of all, ginseng is a generic term of raw ginseng, white ginseng and red ginseng. Raw ginseng is the original type dug out from the ground and its moisture content is at least 75%, so it is not meant for long-term storage. White ginseng is 4-year-old raw ginseng whose skin has been peeled thinly and is dried under the sun. It is processed so that it has moisture content below 15% and its shape is not transformed. White ginseng is classified depending on shape as straight ginseng(直蔘), half-curved ginseng(半曲蔘) and curved ginseng(曲蔘).

The rose-brownish colored red ginseng is a type of ginseng that is steamed with water for long-term storage purposes. By steaming and drying, it reaches moisture content of 15% or less, and during the process, it changes its color to dark brown owing to the browning reaction. Also, it gets solid and firm, which makes it possible to be stored for up to 20 years. Chinese people have believed that long-aged



- Various types of white ginseng. From the left, Straight ginseng(直蔘), half-curved ginseng(半曲蔘) and curved ginseng(曲蔘).



- Raw ginseng shaped like a human.



- Taekuksam.

red ginseng is more effective, so it is likely to be more expensive. In fact, the more aged the red ginseng is, the richer is its distinct smell. Taekuksam is a type of ginseng that falls between red and white ginseng. Raw ginseng is dipped and boiled in hot water for a certain period of time and then dried to make Taekuksam. Its skin is light yellow and brown, and when cut into halves, its cross-section color is similar to that of the red ginseng.

Introduction of Boiled & Dried Red Ginseng

When did the first processing method of making different types of ginseng types appear? Originally, ginseng was just dug out from the ground and had medicinal uses. However, the moisture-rich fresh ginseng was difficult to store and could not maintain its commercial value. Particularly, it went moldy when it was transported as a present to the king or tribute to China. It is speculated that various methods for long-term storage were tried to overcome the above.

The history of ginseng processing was not clearly recorded. Yet, before the Tang Dynasty era in China, ginseng was mainly taken fresh or cleaned with water and sun-dried so that its skin became white. Thus, dried or naturally-dried white ginseng was resistant to rot and did not break into many pieces when kept for a long time. After further development, ginseng is now dried after it is once boiled or steamed.

In 《Geumnangbirok(錦囊秘錄)》 written by Pungjojang of the Ming Dynasty, there is a phrase that reads ‘when ginseng is collected(人蔘採), put them into boiling water(沸湯) …’. It refers to drying after boiling. In addition,



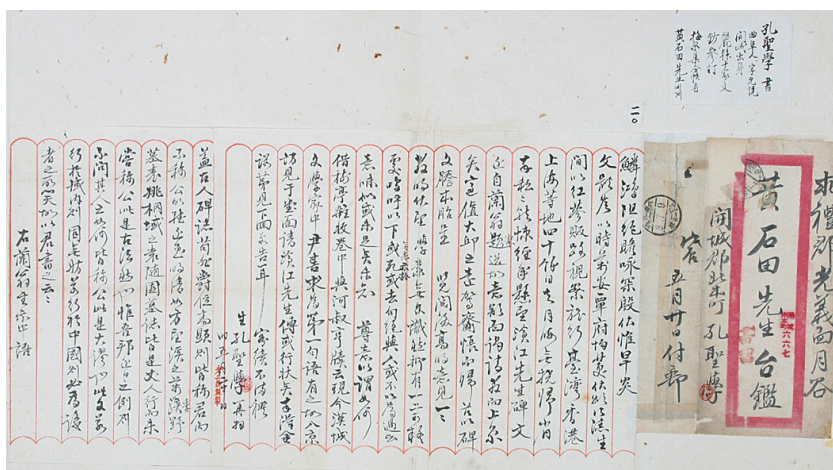
• Boiled and Dried Red Ginseng.

low quality fresh ginseng(把蔘), which is a bundle of small and large ginseng types that are boiled and dried, is said to be passed down from the Chinese merchants who had followed the army of the Ming Dynasty during the Japanese Invasion of Korea. It is said that even before that, Nurhachi(Qing Taizu), the head of Yeojin in the late Ming Dynasty, taught the people how to boil ginseng(煮蔘) for storage purposes.

It is an evident that red ginseng was made during the Qing Dynasty. Moreover, according to 《Junggyeongji》 published in 1830, Gaeseong seems to be the place of origin. 'Opium addicts in China took some ginseng and regarded the ginseng from Joseon as rare and valuable. There were occasionally side-effects, so Choi boiled the ginseng with water vapor and sold it as red ginseng.' However, red ginseng had already been made in the Goryeo Dynasty before the Qing Dynasty. In

1123 during the rule of King Injong of the Goryeo Dynasty, Seogeung(徐兢), the Song Dynasty envoy visited the area of Gaeseong and recorded the lives of Goryeo in 《Goryeodogyeong(高麗圖經)》. The book contains the method of steaming the red ginseng.

The ginseng stem is split by a cycle, and although ginseng is found everywhere, the one in Chunju(春州) is the best. There are 2 types of ginseng, the fresh(raw) one and the steamed, dried one(Suksam). Fresh ginseng is white and empty, so when put into drugs, it is whole. But after summer, moth may be found and it is not as good as the one that can be steamed and stored for a long time. From ancient times, it was believed that the shape of ginseng was flat because the people of Goryeo steamed it after pressing with a stone to extract juice but, that was not true. It was because it was made by splitting the steamed ginseng roots, and there was a proper way of boiling.



- Letter sent from Kong Seong-hak(孔聖學) who was living in Gaeseong to Hwang Seok-jeon, a Kurye resident, on May 20, 1928. Kong said that he returned to his home at the end of the previous year after traveling to Taiwan, Hong Kong, and Shanghai for 40 days to open up a market for red ginseng. Source: eMuseum portal

Here, 'Suksam' refers to steamed ginseng, which may not be the same as red ginseng. Yet, as the former red ginseng, it shows the origin of ginseng processing. Especially the phrase, 'it was made by splitting the steamed ginseng roots' implies that it matches the processing and packaging of red ginseng that we adopt today. It can be expected to conclude that ginseng processing had already started in the Goryeo Dynasty. In summary, a variety of red ginseng processing methods that are used today had existed since the Goryeo Dynasty, and it seems that they have been popular in the early Qing Dynasty in China.

The White Ginseng, the Original Ginseng of Global Mail-Orders

Unlike the red ginseng that is regulated by the government, white ginseng is purely pioneered by the efforts of merchants. As ginseng cultivation boomed in the 18th century, ginseng production increased and red ginseng production drastically increased as well. The government regulated and supervised all activities, including ginseng cultivation, processing and sales. Raw ginseng that was not suitable for making red ginseng was sent back to the farm. Then, handling returns became an issue.

Initially, returns were not a big deal in terms of income and expenditures even when they were unsuitable for white ginseng. However, as the government took charge of the ginseng industry as a monopoly, the supply price dropped and the government made big profits. It was urgent for ginseng farmers to make ends meet when their fresh ginseng was unsuitable for making red ginseng. So, in Gaeseong where quality red ginseng was not easy to be produced, the white ginseng began to be

commercialized. Although white ginseng was produced for a long time, its production was activated in future generations.

Gaeseong merchants developed raw ginseng into white ginseng using the remaining ginseng that was not supplied for making red ginseng. Sohn Bong-sang, Choi Ik-moh and Gong Seong-hak are 3 ginseng merchants who led the development of white ginseng. They engaged in selling white ginseng not only within the country, but also outside the country. They created the ginseng brand of Gaeseong, improved product packages and actively performed promotions. The mail-order method at that time is similar to today's e-commerce. It was an innovative sales method at that time. Products were advertised on newspapers, magazines and leaflets and orders were received via postal mail. The brand strategy, improved packaging and modern sales method resulted in high achievements in foreign countries as well as in Korea.

Why did the Army Protect Ginseng Fields?

In all ages, the most troublesome matter of ginseng farms is to prevent ginseng theft. It seems that at the time ginseng theft was constant. Several ways to prevent ginseng theft were introduced in 《Samseo(蔘書)》 written by Lee Hak-gyu(李學達) in 1800. According to the book, stones were piled up around ginseng fields, instead of using bales of hemp stems to prevent ginseng theft. If thieves touched the stone walls while entering the fields, it would make a loud noise as the walls would collapse. However, Lee Hak-gyu pointed out that this also damaged ginseng. Additionally, a deep ditch outside the wall was dug to prepare for droughts and floods. He said that it was inappropriate to dig a wide ditch to pile up stones. 《Samseo》 also described that there were people making noises at night, guarding ginseng fields. In fact, the history of ginseng theft is as long as the history of ginseng.



lead to murders. At first, Japanese secretly hid red ginseng made by Koreans. They hid defective red ginseng produced in Gaeseong steam center or illegally produced it in other places. With illegal sales, they earned a lot of money and became bolder. They purchased fresh ginseng and illegally produced red ginseng to sell in the early 1890s. At that time, it was strictly prohibited for ginseng field owners to sell ginseng to Japanese. Japanese escaped from surveillance and invaded whole ginseng fields.

When Jemulpo near Gaeseong opened, ginseng thefts increased. Japanese thieves departed Jemulpo with carriers and guards, and arrived at Byeokrando near Gaeseong. There were as many as 50 people and around 30 people in a smaller group. They were even armed with knives and guns. They were armed robbers. Also, tens of Japanese robbed ginseng from fields and got into fights with residents. There were murder accidents and their violent behavior was reported on the news. Japan's police always concluded that both parties were mutually at fault, angering Koreans.

Gaeseong ginseng farmers could not withstand Japanese robbers anymore, and requested the Gaeseong official the following in 1898. "Japanese people purchasing ginseng not coming from ginseng owners are robbers and Koreans who are selling ginseng that are not theirs are also robbers. They should be severely punished to end the evil of selling ginseng from robbers to robbers." However, there were no improvements and the government turned over responsibility to Gaeseong people, resulting in civil commotion. Ginseng theft by Japanese people was severe from 1894 to 1899. When damages owing to illegal ginseng digging increased, the government established the <Samjeong Rule> in



- Series of postcards on the Joseon folk village published by Kyungseongiljichulsanghaeng (京城日之出商行). The color photography on the postcard captures the ginseng drying process scene.
Source: National Folk Museum of Korea



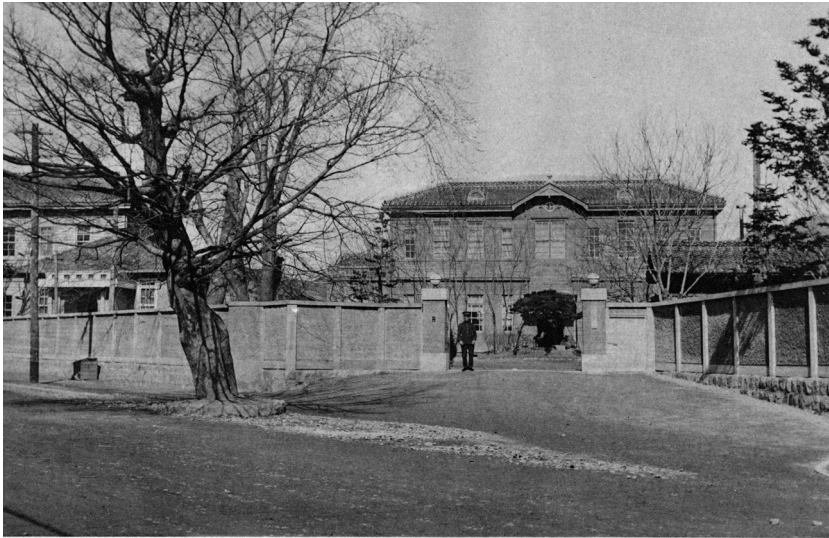
- Postcard with a black and white photograph capturing the ginseng manufacturing process. The phrase 'THE GRAND SIGHT OF THE GINSENG WORKHOUSE AT KAISYONG' is imprinted on the upper left side. Source: National Folk Museum of Korea

Ginseng is
the Root
of Life

1898 to prevent illegal acts. As raw ginseng used to make red ginseng was illegally brought out of the country, the government had to strictly control this for it led to decreased national income. The government issued invisible marks, a type of certificate, to ginseng field owners, and when the owners sold the fields, the marks would be transferred to purchasers. With this action, the government wanted to prevent any deals without certificates.

Dispatch the armed forces to ginseng fields

When the royal family held a monopoly of ginseng, armed forces were dispatched to protect ginseng fields, ultimately to prevent thefts. Naejangwon(in charge of national treasure and properties) assigned the Gaeseong official as a commander to protect ginseng fields in Gaeseong in 1899 by order of the King. The commander was in charge of Haeju, Hwangju and Ganghwa, and troops were dispatched at each district where ginseng fields were located. The troops were allowed to shoot whoever tried to steal ginseng, whether being locals or foreigners, and then report it later. In other words, troops were authorized to shoot ginseng thieves on sight, and any shooting incident could be reported later. Thus the government raised the stakes and protecting ginseng was a national task. Troops were dispatched in September and October when ginseng was harvested, and they strictly controlled distribution, sales and production of red ginseng. Around 100~200 soldiers were dispatched. Soldiers from Gaeseong Division were in Gaeseong, but those from Hwangju, Haeju and Suwon Divisions were also dispatched. They supervised ginseng fields, and



• Gaeseong Ginseng Center of the Japanese Government-General of Korea under Japanese colonialism.

guarded ginseng transports. When requested by ginseng field owners who mostly cultivate ginseng 5 years old or more, armed forces were dispatched. 2 or 3 soldiers were dispatched for every 1,000 furrows.

According to 〈Hwangseong Sinmun(Newspaper)〉, tens of soldiers from Haeju, Hwangju and Ganghwa were dispatched. A few days later, 150 Ganghwa soldiers, 100 Haeju soldiers and a company of soldiers were dispatched again. A company of bodyguards was dispatched as well. In 1899, when soldiers were protecting ginseng fields, Japanese thefts drastically decreased.

The royal family and the Japanese General Government installed a division for police affairs in Samjeong section and dispatched police officers. The police affairs division was originally under the police headquarters, but it was under Samjeong at that time. It was a fairly

large division composed of the chief of police, 2 police supervisors and 40 police officers. Uniformed police officers were responsible for supervising ginseng fields, and special police officers wearing ordinary civilian clothes were in charge of arresting thieves. A group of 3~4 special police officers dressed in civilian clothes went undercover cracking down ginseng-related crimes. The head of the Samjeong section had the power to appoint police officers who were in a lower position than police managers(chief superintendent). A lot of them were authorized by the Samjeong section to protect ginseng fields.

Police officers prevented others from entering the field when ginseng was being harvested. When it was completed, they searched every worker for hidden ginseng before they left the fields. They thoroughly watched so that no ginseng root could be brought out from the fields. Even after 120 years, the police in ginseng-produced areas are under emergency during the harvest season. Ginseng field maps are placed within the area and they patrol the fields. Barricades are installed at every checkpoint for strict night inspections. This is the evidence that ginseng values still shine.

What makes the best ginseng?

Q When it comes to ginseng, is the longer and thicker the better?

A The medicinal effects and quality of a ginseng root are not proportionate to its size. They may be small, but wild ginseng(長腦參) grown in the mountains are known to be the most effective. In fact, ginseng that is too big for its cultivation period may be too soft inside. Adequate sizes for their age are regarded as good ones. Ginseng roots in human form have long been considered to be of the best quality. In other words, good ginseng roots have parts that look like a person's head, body, arms and legs, each part having a balanced size and shape. The reason for this is evident when processing red ginseng. Despite being long and thick, it becomes porous and white on the inside when heated and steamed. This is similar to an obese person looking robust on the outside but weak on the inside. This is why red ginseng producers, rather than relying on the size of a ginseng root, use balanced shape and the clear distinction between rhizome, main root and lateral root as its standard for quality. A good ginseng root has 2-3 thick main roots, a perfect shape, without any red or black spots on its body, and have many fine roots that are intact.

Q Does the rhizome have to be removed from the ginseng?

A No. It was customary in herbal medicine to remove the rhizome as it was said to inhibit the effectiveness of ginseng and cause nausea when it was used as a tonic. However, after administering rhizome extract to the elderly recently in China, the results showed that, whereas their ageing and physiological metabolism improved, there were no symptoms of nausea.





Q Why is it better to decoct ginseng for a long time?

A When ginseng is heated for a long time, its medicinal effect increases due to the production of high functioning Saponin – which doesn't exist in raw ginseng – and an increase in antioxidant ingredients and amino sugar compound content. So it is better to decoct ginseng for a long time. There is even an old saying that ginseng should be decocted for a long time before being consumed.

Q Which part of ginseng is rich in Saponin?

A Saponin in ginseng is called 'Ginsenoside', as it distinguishes itself from the Saponin in other plants and animals in terms of its effectiveness. Ginseng Saponin content is different in each part of the root, the order being 'fine roots→rhizome→thick roots→main root'. Although Saponin content is higher in the fine roots than in the main root, there is a big difference in the Saponin content in each part depending on the type of Saponin.

In fact, the effectiveness of ginseng must not be solely based on the type and quantity of Saponin. Only the ginseng roots with the right ratio of Saponin type and content can be said to have the highest effectiveness. Other than Saponin, ginseng contains a lot of other ingredients that are beneficial to the human body, such as polyacetylene, polysaccharide and phenol. The content of a specific ingredient as well as the balanced distribution of several bioactive substances are important when determining the quality of ginseng.

Q What is the expiry date of ginseng?

A The moisture content of raw ginseng dug out from the field is around 70%, so it is difficult to store at room temperature for a long time. Thus, it is better to wrap it in small packages when consumed at home. White ginseng or red ginseng can be kept at room temperature without moisture for at least 2 years, and even up to 10 years, if it is vacuum-sealed. In fact, the old red ginseng in vacuum cans is considered more valuable.

Q Should iron not be used on ginseng?

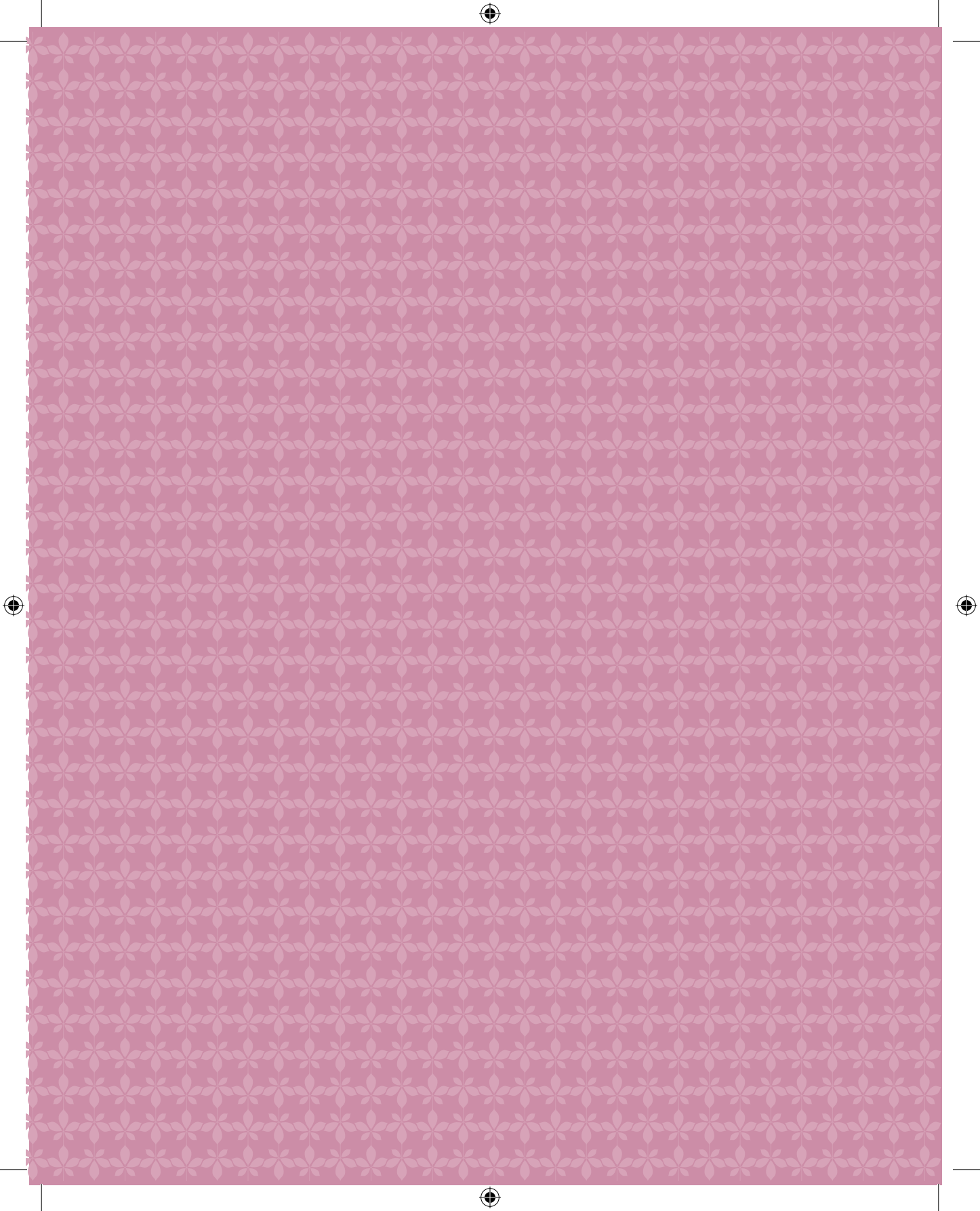
A Since early times, using iron on ginseng was prohibited, which is why a bamboo knife was used to cut ginseng and earthen or stone pots were used for decocting. Ginseng contains phenolic components that act as an antioxidant which may lose its effectiveness due to oxidation when it comes in contact with iron (Fe). This is why it is recommended to avoid steel containers such as iron pots for decocting ginseng. However, it is safe to use stainless steel or aluminum containers that are used as food containers nowadays as these substances don't oxidize the ingredients in ginseng. There is no need to worry unless a cast iron pot is used.



02

The Ginseng that Protected Korea

- From the Silk Road to Yucatan Peninsula, Mexico
- The Independence Movement Fund
- Ginseng Supporting the Military
- Why was Priceless Ginseng Burned?
- Ginseng Proves that Dokdo is Our Land
- Key Products of the Joseon Economy, *Shim*



From the Silk Road to Yucatan Peninsula, Mexico

The Silk Road opened a path for trade between the east and west, whereas the so-called ginseng road connected the Americas as well as Europe. It was not easy to travel to foreign countries back then, yet ginseng dealers sailed around the world. Sometimes they were caught up in the vortex of harsh history and underwent all sorts of hardships. As private envoys, they became pioneers for our people to spread throughout the world.

Our ancestors were exiled after visiting the Silk Road

Ginseng dealers in Silk Road first appeared in the literature in the late 19th century. According to 《Chunggyejungilhangwangyesaryo》(清季中日韓關係史料), Mun Cho-une(閔肖雲), a ginseng dealer sold ginseng in Jiayuguan, Gansusheng located west of Dunhuang which was one of the biggest Chinese cities on July 14th, 1883(The 20th year of King Gojong).¹² Historical

records were written in reference to diplomatic documents prepared by the Qing Dynasty office, Suncheon reporting that Mun Cho-une traded ginseng in Gansusheng, so he was arrested and sent to Beijing. He was arrested because it was illegal to sell ginseng in Jiayuguan, which was a trading area for Russian dealers and he did not even have a pass. For these reasons, he was banished from Beijing to Joseon.

The whole story is as follows. In 1882, Mun Cho-une followed 'Dongjisa', a Qing Dynasty envoy, to China around the winter solstice. He did not return with the envoy and headed to Dunhuang that was 200 km away. Envoys to China were allowed to trade local products like ginseng, tiger skin and cheongsimhwan to pay for their expenses, and Mun Cho-une brought high-value ginseng to the Silk Road for trade. He told the envoy that he knew a place where he could stay, implying that he planned the whole trip. Professor Choi Deok-soo from Korea University said, "Some people must have helped Mun Cho-une and it seems that a lot of Joseon dealers sold ginseng in the Silk Road."¹³

Dealers took risks to enter the Silk Road because Korean Ginseng was expensive, popular and profitable. However, he was exiled for illegal trade in China. On August 1st, 1894, 《Seungjeongwonilgi(承政院日記)》 records that Mun Cho-une in Cheolwon was released. Perhaps, that might have been a diplomatic measure.

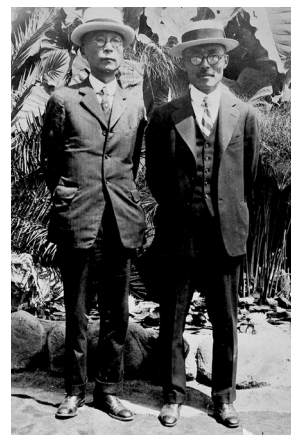
Writing the first chapter of emigrating to the United States

As shown in the story of Mun Cho-une, Korean ginseng dealers advanced abroad and we cannot leave out the role of ginseng dealers

in the emigration history to America and Mexico, 121 Koreans departed Incheon Port on December 22nd, 1902 to Hawaii. They officially moved to the States. Koreans working in sugar cane farms in Hawaii moved to the mainland to work in railways where they were paid more. In 1903, around 20 ginseng dealers and students from Korea lived in San Francisco.¹⁴

Ginseng dealers traveled to San Francisco following the first emigrant, Seo Jae-pil(徐載弼), and returned home via China after 1893. According to the entrance records of San Francisco Harbor from January to September 1893, there were 9 ginseng dealers and all of them were marked as 'Chinese'. Most were from Pyeongando and they moved along with Chinese workers. Im San-oak(林尙沃), a well-known ginseng dealer was born at that time and those mostly from Uiju, Pyeongbuk were active in trading. Ginseng dealers settled in the States and brought back Chinese passports. They sold ginseng traveling around areas where Chinese people resided. However, it was easy to recognize them as Koreans. They wore traditional clothes like topknots and straw shoes to let them know that they traded genuine Korean Ginseng.

There were frequent fights among ginseng dealers to find better spots for trading under harsh situations, and some sold American ginseng instead of Korean Ginseng, deceiving purchasers. Others wasted money on alcohol, women and gambling. Observing all these



• Photo of Seo Jae-pil(Left) and Ahn Chang-ho(Right) in L.A., USA in 1925. They held together Korean residents in the USA who were ginseng dealers and students studying abroad.

issues, Dosan Ahn Chang-ho(島山 安昌浩) organized a social gathering for Koreans in San Francisco in September 1903 to amend their miserable lives. This was the first Korean organization in the United States and it is the foremost official association that led the Korean society in the United States.

Global sources of patriotism outside the country

As shown in emigration history, Korean ginseng dealers appeared wherever there were Koreans and Chinese. South America sitting on the opposite side of the globe was no exception. Kim Ik-ju from Hwanghaedo sold ginseng to Chinese in South America and Cuba. The money he earned from the trade and fundraising from Koreans working in sugar cane plantations, would be sent to the Provisional Government of Korea in Shanghai to be used for the independence movement. Park Yeong-soon moved to Mexico and reported the miserable lives of Koreans working in Henequen(a type of agaves; raw material of vessel ropes) farms to the US public association. It was published in 〈Korea Daily News〉 as well.

Struggling for living, ginseng dealers could not settle in one place but had to travel around. They delivered Korean news to Koreans living in other countries and held fundraising events to support the independence movement. Sohn Kee Chung who won a gold medal in the Berlin Olympics marathon in 1936 first heard from a ginseng dealer he encountered in Singapore on his way back to the country that the 〈Dong-a Daily News〉 had erased the Japanese flag. Ginseng dealers traveling around the world were not simply engaged in commercial activities, but they acted as messengers delivering news to overseas Koreans.



- Henequen farm in Mexico 110 years ago



- A photograph that was taken immediately after the Korean immigration to Mexico 100 years ago. The miserable working and living conditions of Korean workers were reported in Korea through Park Young-Soon, a ginseng dealer.

The Independence Movement Fund

Where did the power for the fierce anti-Japanese movement in Korea and overseas for 36 years under Japanese Imperialism come from? Patriots risking death and their national spirits were the foundation to power, but without material support, it would have been difficult to continue the independence movement. The independence movement fund was raised by devoted noble families and the united forces of merchants and commoners. Funds raised by Koreans living in Manchuria, the Maritime Province, Shanghai, America and Southeast Asia countries were great encouragement for the independence movement and support for the anti-Japanese movement. It should be noted that Korean ginseng dealers were everywhere in the world. They were directly or indirectly related to the independence movement.

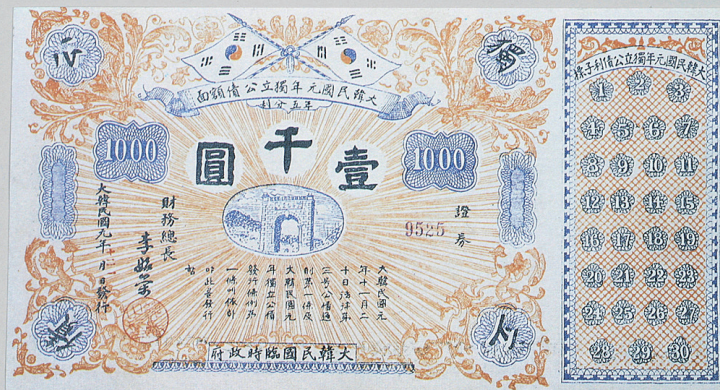
Shanghai ginseng store, an independence movement base

As Korean dealers in America, Mexico and Southeast Asia countries supported the independence movement, ginseng dealers in Shanghai where the Provisional Government was located had greater roles. Immediately after Korea opened its ports in 1876, it had a close relation with Shanghai, China. Moreover, when regular routes between Joseon and Shanghai opened in 1883, the exchange of human resources and trade became easier. Koreans traveling to Shanghai were initially government officials, millionaires' children and merchants, and Korean merchants entered China to start their business. They did not just stay in border areas, but went deep into the country, including Hubei, Guangzhou, Sichuan and Yunnan to sell ginseng, linen and cotton and cowhide. To enter these areas, they had to get to Shanghai first.¹⁵

Koreans who moved to Shanghai in the Japanese colonial era opened ginseng stores or became peddlers. Since there were no alternatives to ginseng and it was popular among Chinese, Korean merchants got fairly wealthy. Also ginseng stores were used as the main contact points



- Patriot Yun Bong-gil who fought for the independence of Korea once worked as a traveling vendor of ginseng to raise fund for independence movement.



- Receipt issued by the Korean Central Assembly to the independent movement fund which was given to Provisional Government of the Republic of Korea to support the independent movement in 1919. Source: eMuseum portal



- Independent loan worth 1,000 won issued by the Provisional Government of the Republic of Korea to fund the independent movement in 1919. Koreans in Hawaii purchased most of the loan. Source: eMuseum Portal

for independence fighters. Korean ginseng stores in Shanghai that sold Korean Ginseng included Haesongyanghaeng, Geummungongsa, Wonchanggongsa, Baedalgongsa and Samsunggongsa.

Han Jin-gyo founded Haesongyanghaeng, and supplied funds for establishing the Inseong School, controlled by the Provisional Government in Shanghai in 1916 and for Kim Gyu-sik(金奎植) who attended the Paris Peace Conference in 1919. He also paid for trip expenses when Ahn Chang-ho traveled to Hong Kong and Beijing in 1920 to meet US congressmen. Kim Si-mun from Geummungongsa helped independence fighters' families when they were arrested by the Japanese police. Kim Si-mun sent 1 Korean Won to 〈Dong-a Daily News〉 in Korea to support Hwang oak (黃鈺)'s family for he was arrested for taking part in Uiyeoldan activities, and it was published in the newspaper.¹⁶

Kim Si-mun offered financial aid to Na Chang-heon(羅昌憲) in Uiyeoldan and Korean volunteer corps members, Ko Jun-taek(高峻澤) and Kim Seok-ryong(金碩龍) when they escaped to Hangzhou after failing to bomb the Japanese Consulate General in Shanghai. Geummungongsa was a hiding place for them as well.¹⁷ Geummungongsa regularly sent some of the money earned from ginseng sales to Kim Gu(金九) in the Provisional Government and independence movement camps. Korean merchants in Shanghai secretly financed the independence movement with money earned from their businesses, so there are very few records other than testimonies.

Noblesse Oblige ahead of our time

Members of Heungsadan(Young Korean Academy), Uiyeoldan and Korean National Revolutionary Party who took part in the independence movement in China earned a living and procured funds by selling ginseng. Selling ginseng was profitable and it was easy to travel around without being suspected, so it was easier to procure funds and collect information. Not many people know that Yun Bong-gil(尹奉吉) the Martyr had once sold ginseng. Also, Nym Wales wrote 《Arirang》, a story of Kim San(Jang Ji-rak). Kim San attended Guangzhou Commune as a Uiyeoldan member and he was on the run. A ginseng dealer in Hong Kong, Mr. Park rescued him from getting arrested and paid for his medical expenses when he got malaria.

On November 17th, 1919, 〈Shanghai Daily News〉 introduced their activities and reported that Korean independence fighters were disguised as ginseng peddlers for anti-Japanese activities and it was difficult to arrest them because they were fluent in Chinese. The Japanese Government General became suspicious of ginseng dealers and reported back to Japan, “We should pay attention to Korean Ginseng exported to China for it is used for the Korean independence movement.”¹⁸ Korean ginseng dealers under Japanese imperialism were actually ‘Noblesse Oblige’ that devoted a tremendous amount of profits from ginseng sales for the country’s independence. Lots of Korean dealers in Shanghai were wealthy, but ended up poor when Japanese police kept close eyes on them and the Chinese Communist confiscated their properties.

Ginseng Supporting the Military

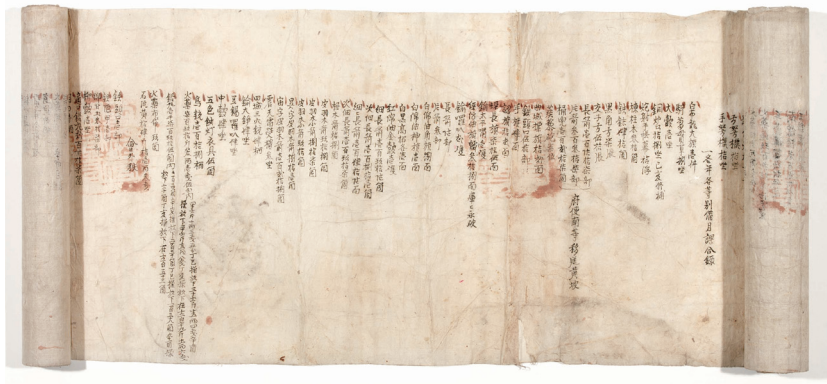
The modern military depends more on weapon capabilities than the number of soldiers. Many countries spend a substantial amount of money on national defense and hold arms races to have strong weapon systems. It is to strengthen striking power and enhance deterrence. THAAD deployment in the Peninsula has become one of the largest issues in the Northeastern Asia region. The UN strictly prohibits raw materials like Uranium and Plutonium from entering North Korea to prevent their nuclear weapon development. In the past, countries held each other in check based on their increased military strength. They paid sharp attention to trade articles that can be used in weapons. As Goryeo and Joseon did not have weapons resources, they took advantage of ginseng.

Using ginseng to make arrows and gunpowder

Water buffalo horns were the main source of arrowheads and there were

attempts to bring them during the Goryeo Dynasty. During the Military Rule in the 12 ~ 13th century, the dynasty endeavored in increasing military strength. Choi I(崔怡) who seized power after Choi Chung-heon(崔忠獻) was a figure of authority in behalf of the king. Choi I tried to bring in water buffalo horns, but at that time China strictly prohibited horn exports worrying that other countries might use them in arrowheads. Thus, it was very difficult to get water buffalo horns. The Military Rule persuaded the Song Dynasty merchants to purchase water buffalo horns, and this is recorded in 《History of Goryeo》(Biography of Choi I). He failed to bring in water buffalo horns several times, but exchanged 50 guen(a guen = 600 g) of ginseng for 4 horns from the Song Dynasty merchant. Although the merchants knew that China had banned water buffalo horn exports, they broke the law and exchanged them with ginseng.

Ginseng greatly contributed to increased military strength during the Joseon Dynasty. Joseon needed strong cannons so they concentrated on producing gunpowder. Although it was easy to get sulfur and powdered



- Joseon Dynasty document listing military weapons inventory including guns and gun powder.
Source: National Museum of Korea

The Ginseng
that Protected
Korea



- Hyeonjachongtong. A tubed artillery ignited by hand. It is estimated that it was manufactured in the 10th year of Myeongjong(1555). Source: National Museum of Korea



- Hwamun Eight Trigram Gun Powder Flask in the Joseon Dynasty. Source: National Museum of Korea

coal in Joseon, one of 3 main ingredients to make gunpowder, niter was found in China. Procuring niter was important in increasing the country's military power. Traders and merchants were the ones who solved this problem. With money from ginseng trading with China, they purchased niter which is essential to make gunpowder.

Ginseng was also behind the expedition to conquer the North. King Hyojong focused on increasing their military strength by recruiting and training soldiers to conquer the North. Niter obtained in ginseng trading was crucial in improving firepower.

Daewongun and Jang Gilsan also used ginseng to increase military strength

When the French navy invaded Ganghwa Island in the third year of King Gojong(1866), the royal court was shocked and realized that it needed to increase its military strength. To strengthen defense in Ganghwado, it dispatched 800 Byeolhyosa and Byeolmusa(soldiers) and imposed taxes on fresh ginseng to meet military costs. 2 coins per 1 guen of fresh ginseng were imposed as taxes. Yang Sang-hyeon, Korean Empire Government Naejangwon's Ginseng Management & Ginseng Taxes,¹⁹ 15,000 guen of red ginseng(7,000 guen more than the previous amount) was produced and distributed. 10,000 guen to Ganghwado, 3,000 guen to Gaeseong and 2,000 guen to Ongjin, and 《Gojongsilrok(高宗實錄)》 records this. It was meant to strengthen military power in Ganghwado. In 1887, it exported 15,000 guen of red ginseng to Tianjin and Shanghai to purchase weapons.²⁰



- Kanghwasanseong. The fortress is the site of the French campaign against Korea(Byeonginyangyo) and the United States expedition to Korea(Shinmiyangyo). To strengthen the military force in Ganghwa Island, the government started to impose a tax on ginseng. Source: Cultural Heritage Administration



- Anti-foreign stele that was established to exclude foreign powers and strengthen protectionism by Heungsun Daewongun. Source: eMuseum Portal

In 1868 after the invasion of Ganghwa Island, Daewongun(大院君) who was in power encountered a shocking event and he was determined to increase military power. When Joseon declined to establish diplomatic relations with Oppert, a German merchant, he robbed Daewongun father (Namyongun(南延君)'s tomb. Owing to this, Daewongun expanded their military power in the capital and Ganghwado to other provinces. As it needed financing to increase the number of soldiers in each region, it collected taxes from ginseng dealers.

In 1900, the Korean Empire purchased 10,000 guns, 30 thousand bullets

and other military weapons from Japan. It spent 1,560,000 won to purchase those weapons. The cash-strapped Korean Empire agreed to pay for the weapons with money earned from ginseng exports to China. It also agreed to pay for transport fees to Mitsui, a weapon transport company with returns from ginseng exports. Mitsui was authorized for consignment sales of ginseng.²¹ As described above, red ginseng was an important source of national defense expenditures.

National military as well as rebel forces received financial support from ginseng sales. Jang Gilsan(張吉山) known as a bandit and thief used money earned from ginseng sales as war funds during the Joseon Dynasty under the reign of King Sukjong.²² He stalked areas in Hwanghaedo, but he also went near Hamgyeongdo and Pyeongando. Ginseng from province borders was the biggest source of income for Jang Gilsan and his group.

Why was Priceless Ginseng Burned?

Only 2 stamps in the world were put up for auction in England. After intense competition, it was auctioned off at 5 million dollars to a merchant. The merchant held one stamp awarded in front of all auction participants and burned it with his lighter. Watching the stamp burn, people were in confusion. They could not understand what was happening and blamed the merchant for his arrogant behavior. Yet, he stood there smiling. Then, he pulled out the other stamp from a small case and said as waving it in front of the people.

“There is only one stamp in the world that is worth 5 million dollars. Then, how much will this stamp be?”²³ To increase the product value, you may have to come up with ideas that change conceptions or do something extreme. How about ginseng that had always been so priceless? There are secrets to the long-lasting values of ginseng.

Im Sang-oak burned ginseng in Beijing

Ginseng saving people's lives continued its life through death. From the Joseon Dynasty to its end, ginseng owners and dealers burnt ginseng to maintain their value during critical times. Without determination, it was not easy to burn gold-like ginseng. Yet, there were mainly two reasons in burning ginseng. First, to prevent their drop in value as ginseng got cheap. It is like quality brand products that are incinerated to maintain scarcity and not sold at cheaper prices even when they are in stock. Second, to protest against the government's tyranny and heavy taxes imposed on ginseng field owners. This was only possible because of ginseng producers' strong determination and pride.

《Sangdo》 is a story about a wealthy merchant named Gapo Im Sang-oak during the Joseon Dynasty. There is an episode where he confronts Chinese merchants who tried to fix red ginseng prices. Merchants in Beijing had complaints about Im Sang-oak's monopoly of red ginseng and they staged boycotts. He waited days, but there were no Chinese merchants who purchased ginseng. When it was time to return home, he had no choice but to sell red ginseng at giveaway prices. Beijing merchants watched for this chance. Yet, Im Sang-oak did not bat his eyes and did something extraordinary. He piled up red ginseng that he brought to China in front of the lodging yard and started burning it. Hearing the news, Beijing merchants rushed to the yard and saved the red ginseng from fire. They begged him to stop. Red ginseng price increased 10 times and he made big profits. After this, he became a wealthy merchant.

Symbol of ginseng dealers' resistance

Just like Im Sang-oak, strategically burning red ginseng was frequent. In 1898, Naejangwon controlled red ginseng businesses to strengthen the royal family finances and ginseng-related dealers in Gaeseong felt threatened. Under a sense of crisis, the Japanese tyranny got worse and ginseng farmers exploded with anger. In the early March 1898, farmers gathered outside Namdaemun to scatter or burn ginseng seeds. They also agreed to cremate growing ginseng in a wood fire. Ginseng dealers and farmers burned their precious ginseng without hesitation for protection. Another event occurred in the same year that demonstrated the dealers' characters. In August 1898, the dynasty appointed Lee Yong-ik(李容翊) as the head of Naejangwon. He was in charge of the royal family finances, ginseng and mining industry. With the special royal order, Lee Yong-ik went to Gaeseong and tried to dominate red ginseng production. However, ginseng merchants in Gaeseong greatly resisted against it. Ginseng field owners in Gaeseong gave up their business and burned all the red ginseng seeds. Lee Yong-ik had to escape from the outraged people. Eventually, in September, he produced red ginseng under military protection. In autumn the following year, when Naejangwon imposed taxes on the red ginseng monopoly, ginseng farmers in Gaeseong stopped cultivation and burned ginseng seeds. The events described above show the strong-minded ginseng dealers and farmers.



• Portrait of Im Sang-oak who amassed a great fortune by trading ginseng products



- Document that records Samjeongsang regulations, a ginseng company established to support the royal family's financial stability in 1899.



- Landscape inside the palace in the late period of Joseon Dynasty.

Korean Ginseng's reputation maintained in regulation of supply and demand

There are stories of ginseng burned to protect its value. The Italian consul general in Seoul from 1902 to 1903 named Carlo Rossetti wrote 《Corea e Coreani》 on Korean situations. It contains a story of burned red ginseng.

Several years before, there were times when ginseng cultivation was especially good. The government worried that it may be disclosed to Chinese purchasers, dropping the price heavily. Eventually, the government announced the King's order in the official gazette. When the King knew that ginseng production was far more than that of the previous year, he ordered to burn 70 boxes of ginseng in the island mountaintop on a specific date. And, Jemulpo residents watched 70 boxes on fire in the castle on the date and time ordered by the King. Of course, no one could have ginseng.

As shown in the story, the government regulated supply and demand by burning ginseng. In 1881, the first diplomat in Joseon named Kim Yoon-sik(金允植) held diplomatic posts in Tianjin, China and he strategically talked with Lee Hong-jang(李鴻章) to protect the reputation of Joseon ginseng.

Lee asked Kim, "There is ginseng in Joseon and it is very expensive. Why you don't plant more?" Kim replied, "If we plant too much, it will be less expensive."

It implies that there were policies from sowing to production to protect ginseng prices. Our ancestors protected the reputation of Korean Ginseng under the saying that 'We would die if we must live and we would live if we do or die(必生即死必死即生).'

Ginseng proves that Dokdo is Korean land

Historical evidences frequently mentioned in territorial disputes between Korea and Japan on Dokdo are records related to Ahn Yong-bok(安龍福) in 《Donggukmunheonbigo(東國文獻備考)》. 《Donggukmunheonbigo》 ‘Yeojiji(輿地志)’ records ‘Ahn Yong-bok’s occupation of Dokdo and banishment of Japanese people in 1695’ proving that Dokdo is not Japanese territory. Here, Ahn Yong-bok chased the Japanese in Ulleungdo out of the island in 1695 and claimed that Songdo(Dokdo) is Usando(Ulleungdo). His statement that the island is our territory is vividly recorded. 《Donggukmunheonbigo》 is a dictionary that records a wide range of culture and institutions from the ancient times. However, not many people know that it was published because of ginseng collection in Ulleungdo.

Ulleungdo Ginseng, the shield for territorial disputes

The prime minister under the rule of King Yeongjo(45th year), Hong Bong-han(洪鳳漢) reported King Yeongjo on October 14th that there may be diplomatic disputes if the Japanese knew that merchants went into Ulleungdo to secretly gather ginseng. At that time, ginseng prices skyrocketed and dealers who knew that ginseng grew in Ulleungdo secretly went to the island. In November 1769, Ulleungdo ginseng was exposed when it was brought out to neighboring towns. On December 9th, Ganghwa inspector, Hong Myeong-han(洪名漢) was replaced for illegal sales of Ulleungdo ginseng²⁴. Ulleungdo ginseng was a hot topic back then, Hong Bong-han appealed to the King.²⁵

'I have heard that ginseng is grown in Ulleungdo and dealers would secretly gather it. I am worried that if the Japanese knew this, we would get into fights, as if cutting down all the trees. We do not have many records that ascertain matters related to Ulleungdo. I think it would be good to collect related records for our country and for relations with other countries.' The prime minister appealed and the King accepted it.
—《Yeongjosilrok(英祖實錄)》 Vol113, 45th year of King Yeongjo

Accepting his recommendation, King Yeongjo immediately assigned an official to Ulleungdo to investigate its geography and local products. Then, the geographical record 《Gangyeokji(疆域誌)》 started and it developed into a bigger project called 《Donggukmunheonbigo》.²⁶ They were worried that there might be territorial disputes with Japan when the Japanese knew that ginseng grew in Ulleungdo so they recorded special products of Ulleungdo.



- Donggukdaeido(東國大地圖). A geographical map made by Jeong Sang-gi in Yeongjo of Joseon(Estimated, 1770). The 1:420,000 scale and bearing are highly accurate showing Dokdo in the map. Source: National Museum of Korea



- Military map of the Pyengando area. The boundary of Aproz and Duman river was a high military tension place as the Qing Dynasty took over. Many maps of this area were drawn to get more information. Source: National Museum of Korea

Protecting ginseng and protecting out land

Korean Ginseng was very popular in Japan back then. Therefore, Japan concentrated on cultivating ginseng so that they could produce when relations with Joseon were severed. In such a situation, it was clear that there would be territorial disputes when the Japanese knew that ginseng was grown in Ulleungdo. To prevent this, the government focused on publishing a dictionary and investigated Ulleungdo. It also chased away any Japanese living secretly in Ulleungdo. One important task was to search for ginseng. 《Jeongjosilrok(正祖實錄)》(March 1799) records the dispatch of ginseng—collecting troops.²⁷

In 1769, it was prohibited to gather ginseng in Ulleungdo. Then, the policy changed on 1795 and ginseng was presented to the King as local product of Ulleungdo. It became official since ginseng in islands was rare, and to clarify that Ulleungdo is our land.

Ginseng gave birth to 《Donggukmunheonbigyo》 that transmitted our glorious culture, and it acted as the Dokdo guard, leaving behind the vivid story of Ahn Yong—bok. Ginseng protected our land and culture.

Key Products of the Joseon Economy, Shim

Nowadays, semiconductors account for a great proportion of the Korean economy. Semiconductors exports amount to about 64.2 billion dollars(12.6%) of the total amount of exports(532.9 billion dollars). They are the main export items along with automobiles and power plants. Just like semiconductors these days, ginseng was one of main trade items in the Joseon Dynasty when there were not many local products. It was similar to semiconductors as it contributed to the national economy as a high value-added product, fairly expensive although light and small. It may not be as expensive as the ginseng traded during the Joseon Dynasty, but the best ginseng is still costly like gold.

Quality ginseng competes with gold

As of 2016, 3.75g of gold is worth 195,000 won and 3.75g of silver is worth 2,719 won. The retail price of quality red ginseng sold in market,

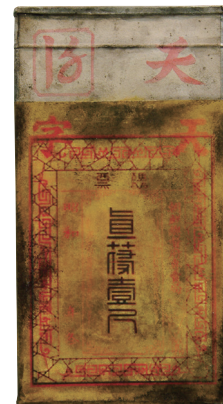
The Ginseng
that Protected
Korea



- Invisible mark attached in the packaging to prove the authenticity of Korean Ginseng on the effect of Red Ginseng Manufacture Regulations in 1928



- Advertisement introducing ginseng tea by Goryeo Sameopsa in Gyeongseong branch, Source: National Folk Museum of Korea



- First ginseng export packaging in the 1960s



- Recent red ginseng product manufactured in state-of-art facilities. Source: KGC Korean Ginseng Corporation

‘Heaven Grade Ginseng(Chunsam) 10; 600g’ is 6,200,000 won, 10,300 won per gram. When it is converted into units used in jewelry, 3.75g of ginseng is worth 39,000 won. Comparing 2016 prices, it will be ‘3.75g of silver(2,719 won) < 3.75g of ginseng(39,000 won) < 3.75g of gold(195,000 won)’, and the best ginseng is worth about 14 times the silver and 1/5 the gold. It is not an exaggeration to say that wild ginseng was worth more than gold. Recently, gold prices increased, but about 10 years ago, quality red ginseng was worth 23 times the silver and 1/3 the gold.

Foreigners in the Joseon Dynasty recorded Joseon customs and there are stories that people exchanged ginseng for gold. This was true, not exaggerations. Of course, ginseng here indicates wild ginseng.

Where and how is ginseng grown?

Q **WIs it true that ginseng can't be grown again on soil where ginseng was already cultivated?**

A Ginseng is innately sensitive to soil, so it doesn't grow well when cultivated repeatedly in the same soil. It is the most well-known plant to suffer 'soil sickness[忌地]'. Once ginseng has been grown on a land, it cannot be planted again on the same land even after 10 years. Such a long term is required due to a reduction in the soil's fertility and bacteria in the soil. Once planted, ginseng grows in the same soil for 4-6 years, during which serious pathogens proliferate in ginseng roots and stay in the soil. When ginseng is re-cultivated in the same soil, the roots rot because of the incubated pathogens. This is why it is difficult to continue ginseng cultivation at the same land. Ginseng fields are formed in virgin soil due to the pathogens not being so dense in soil where ginseng is being cultivated for the first time. Owing to the recent development of cultivation technologies and control of pathogens, the period for ginseng adaptation in fields has gradually decreased.

Q **Why is there a black screen on a ginseng field?**

A Ginseng is sensitive to soil as well as the growing conditions. As ginseng prefers a half shade, it has to be grown in a shade, and it is also sensitive to humidity. Humidity must be well maintained due to the ginseng being sensitive to too much humidity and too much dryness. Young ginseng is sensitive to dryness around May-June and middle phase ginseng is sensitive to humidity during the rainy season in July-August. Due to this sensitive nature, growing conditions have to be regulated carefully for about 3-5 years after transplanting till harvest. It requires that much devotion from its grower.



Q Virgin soil can't be easy to find. Is there any arable land that is unique?

A Korea is a small country, which makes it very difficult to secure arable land due to the absolute lack of first crop fields. Lately, people have even ventured into the Civilian Control Zone below the Northern Limit Line that has been deserted since the Korean War to grow ginseng. This area has a lot of land suitable as a first crop field for ginseng and no crop was grown previously, making the soil rich in organic substances. Moreover, the climate makes it very suitable for growing ginseng. In recent years, there has been much progress in the development of farming methods that make allow ginseng to be grown repeatedly. Successful repeat cultivation may be in the not-too-distant future.



Q Why is there such a low production of ginseng?

A Production of ginseng is very low, as ginseng grows slower than other crops and it is sensitive to disease. But then, giving a lot of fertilizer is not an option, as this would actually cause physiological stress. As it is not easy to cultivate, the value of one ginseng root is invaluable.

Q Why is Korean ginseng famous?

A Korea is recognized as the country where ginseng originated. Ginseng was a leading product of Korea since more than 2,000 years ago. As a peninsula, Korea enjoys four distinct seasons that are influenced by both the continent and the sea. Korea is also located in a latitude that is favorable for growing ginseng, as is the soil. In other words, it is geographically well situated with the most suitable climate and soil for growing ginseng. Korea also has world-class ginseng farming and processing techniques. This makes it only natural that Korean ginseng has the world's top quality.



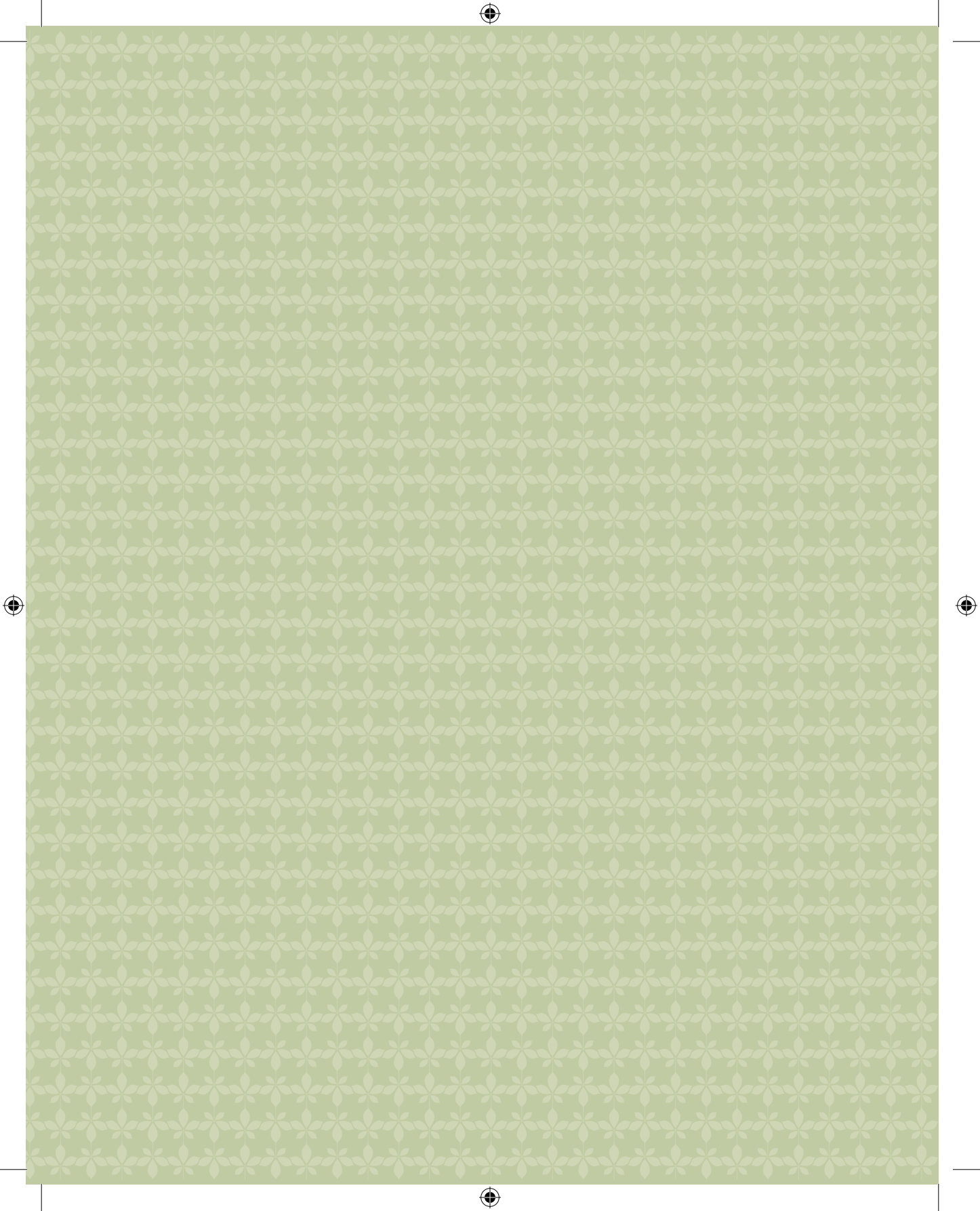
Q Are American ginseng, Siberian ginseng, and Brazilian ginseng different types of ginseng?

A The scientific name for Korean ginseng is *Panax Ginseng*. In the US and Canada, there is a plant called western ginseng or '*Panax Quinquefolius*' that looks similar to ginseng. Although in the same *Panax* genus as Korean ginseng, it is used overseas as a substitute for ginseng. This type of seng should not be confused with ginseng. Siberian ginseng is the root of the *acanthopanax* plant, which is distant from ginseng. Brazilian ginseng, Thai ginseng are also plants that are far from ginseng. They are trying to take advantage of the name ginseng as it is so popular and well-known.

03

Ginseng in the World

- Korean Ginseng in Europe in the Age of Exploration
- Ginseng Presented to Louis XIV
- Why was European Scientist Interested in Ginseng?
- A Rage after Ginseng in North America in the 18th Century
- Ginseng Prescribed by Modern Western Doctors
- Ginseng Fields in North America: Expanding the Ginseng Business



Korean Ginseng in Europe in the Age of Exploration

When was ginseng first introduced in the West? It is not certain but at least it was introduced in the early 17th century. It was the result of the age of exploration, in other words, the European overseas expansion. Since Portugal fleets led by Vasco da Gama landed in Calicut in the Western India Ocean in 1498, the Netherlands and England had gone out farther into the East Asian seas. They built a vast network of seaborne trade, and plundered, explored and adventured. They wanted oriental spices like pepper that would bring big profits.

Long-distance trade would bring high returns at high risks, so the English merchants established East India Company in 1600 chartered by Queen Elizabeth I for more efficient trade. There were several companies trading with the East Indies in the Netherlands. 6 companies were merged to establish Vereenigde Oostindische Compagnie(VOC) in 1602. Then, the Danish East India Company in 1616 and the French East India Company authorized by Louis XIV in 1664 were officially established, and similar companies opened in Scotland, Germany, Sweden and Prussia. England

and the Netherlands were leading the East Indian trades back then. The first record on ginseng in the European history was found the document of East India Company of England and the Netherlands. Interestingly, ginseng was not first found in East Asia, but in the southernmost areas in the Cape of Good Hope.

Searching for ginseng in the Cape of Good Hope

In 1611, the British East India Company ordered an officer named Peter to collect roots called Ningine in the Cape of Hope.²⁸ Ninzin, Ningine and Ninsi were other names of ginseng in the 17th ~ 18th century. Native South Africans called it Kanna, but it was not ginseng. Europeans believed that it was from China.²⁹ This plant was known to fortify people and it was so scarce and priceless that only the upper class could use this medicinal herb. When Peter arrived at the Cape of Good Hope, he encountered 2 merchant vessels that had the same mission. Crews from both countries had to compete severely to obtain roots with miraculous power.

Native Africans appeared in the Cape of Good Hope port to sell the roots to European sailors. The East India Company employees exchanged them with copper pieces, and they would even climb mountains to collect them. However, they were disappointed with what they had collected because they were smaller and less ripened than the ones brought by Native Africans. The East India Company endeavored to collect those roots back then as it is recorded in documents. Furthermore, in fact, they were able to distinguish quality ginseng. In this situation, Korean Ginseng appeared as genuinely high-quality ginseng.



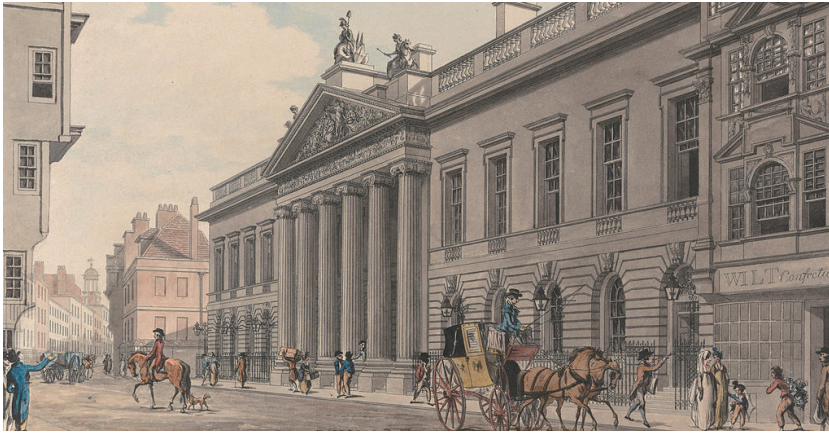
- Kanna in Africa that used to be mistaken as ginseng.



- Old map of Cape of Good Hope in Africa.

Korean Ginseng in England

The East India Company manager, Richard Cocks in Hirado(平戸), Japan sent an important letter and small package to the headquarter in London in 1617. Hirado was a port city that first traded with European countries from 1550, and it was the basis of East Asia trading until Nagasaki emerged. Richard Cocks received ginseng(kanna) from the Cape of Good Hope, but its roots were so dried without any medicinal effects that it had no value in Japan. He was upset and sent orders to the head office in London to compare it with quality ginseng roots from Korea. He thought that ginseng was an important profitable product. Also, he added that the Emperor authorized the load of Tsushima exclusive rights to trade ginseng with Korea because ginseng was extremely rare in Japan. It had the same value as silver. The owner was able pay tribute to the Emperor of Japan

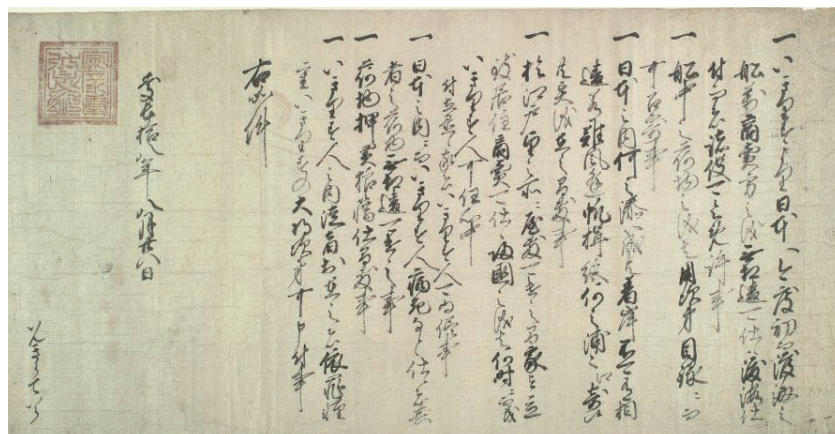


• East India Company of England.

solely with ginseng roots.³⁰ The official letter of East India Company is the first record that Korean Ginseng first entered England.

Essential trade goods of the British East India Company

Since then, ginseng was categorized as an item for private trade in the British East India Company. Private trade refers to a special favor in which a captain or company manager can trade a certain amount of goods for trades on ships. Extremely rare, expensive and high-return goods like jewelry, musk and ambergris were used for private trade, and ginseng was included later on. The British East India Company classified ginseng as an article for private trade because it was not suitable to trade in large quantities. It was very difficult to gather and its price might drop if traded in large quantities. Ginseng from East Asian countries was priceless and popular in the spot trading around India and East Asian



• Document showing exchanges between Japan and East India Company imprinted with the Dokukawa Ieyas seal.

countries, and some merchants brought back ginseng for sales in Europe. In the Netherlands in the 17th century, it was said, “Ginseng is so rare that it is sold at 25 florins per pound.”³¹ Ginseng was a precious gift between high officials in England.

Ginseng was important item in trade benefiting especially England until America started direct exportation of ginseng grown in her land to China in the late 18th century. The England Parliament evaluated that East India Company made enormous profits from ginseng and asked for special quality control of ginseng as its supply was always short of demand.³² In fact, the British knew the secret of ginseng trade. Only the best ones were chosen and a small amount was sold at high prices. In the early stage of building trade networks that connected the East and the West, ginseng was already a global product that was well-treated.

Ginseng Presented to Louis XIV

On September 1st 1686, a grand welcome event was held in the Hall of Mirrors(La Galerie des Glaces) in Versailles Palace. Louis XIV the Sun King(reigned 1643~1715) welcomed diplomatic envoys from Siam(Thailand). France established the East India Company in 1664. As France started foreign trade later than other countries, it was troubled over interferences of the Netherlands. France was in a hurry to build bridges linking Eastern countries and it wanted to break through difficult situations by closely relating with Siam, which was one of the strong Eastern powers along with China and India. The Siam King, Phra Narai was suffering because of foreign influence and wanted to develop friendly relations with European countries. He chose France. Ginseng was important in diplomatic relations between the two countries.

Korean Ginseng grown in Couli(Korea)

Siam initially sent an envoy to France in 1681 and a second one in 1684. Louis XIV gave them a great welcome and in return dispatched a diplomatic envoy to Siam in 1685. The envoy's team included religious

people and scientists as it was meant for politics and culture. They closely investigated Asian culture and products and reported them back to the country. The French envoy first saw ginseng then and a priest named François–Timoléon de Choisy and the Jesuit missionary, Guy Tachard sent the detailed record of ginseng to France.

De Choisy reported that ginseng is a root plant grown in Hounlam–sout–chouan, China and Couli. He concluded that it did not grow in any other place.³³ ‘Hounlam–sout–chouan’ written in French might be Yúnnán and Sichuán considering the pronunciation. In fact, ginseng was cultivated in Yunnan, Sichuan and Guangxi, it was called Panax Notoginseng, and was different from Panax Ginseng(Korean Ginseng). It was also grown in Southern China, India and Vietnam. Meanwhile, it seems that ‘Couli’ ginseng indicated the famous Korean Ginseng. In western documents, Goryeo is written or pronounced as Caule, Cauli, Caoli, Corai, Cory and Core, and even in the Joseon Dynasty, Korea was called by the ancient name, Goryeo in Europe.³⁴

Special gifts for friendly diplomatic relations

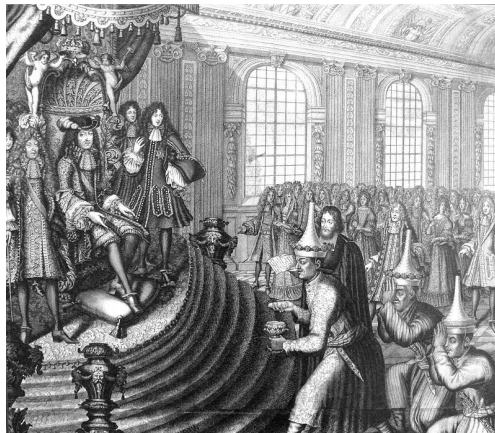
In 1686, a new Siam envoy arrived at the Versailles Palace. Louis XIV was suffering from severe anal fistula because of long hours on horses. Yet he threw a grand welcome party for the Siam envoy although suffering from inflammations and high fever. The Hall of Mirrors was arranged with silver furniture and the King showed his rooms, treasures and gardens. 1,500 high officials and the distinguished attended the event and the most famous episode in the history of ginseng occurred. The Siam ambassador presented

ginseng to Louis XIV wishing for health and longevity. Ginseng is recorded as 'Jancam' and the gift package contained ginseng, a silver kettle 'used to boil water to brew tea and cook ginseng' and Chinese tea cups.³⁵

In the following year in 1687, Louis XIV was authorized for the missionary work in China from vatican and dispatched 5 Jesuit priests to the Qing Empire. They studied various fields including astronomy, mathematics, physics, geography, zoology, botany and medicine in the Emperor Kangxi(康熙帝) court. In particular, there were great achievements in the botanical areas. Here, ginseng was one important research subject. Louis Daniel Le Comte introduced external features of ginseng and ways to take ginseng, and reported that ginseng is an outstanding heart stimulant and cure—all in China. Another priest named Antoine Thomas had privileges to take ginseng. In 1691, Emperor Kangxi granted Antoine Thomas ginseng for the cure of his illness, and he took it twice. It was recorded as a special event because Emperor's grant of ginseng was a sign that he favored that retainer.



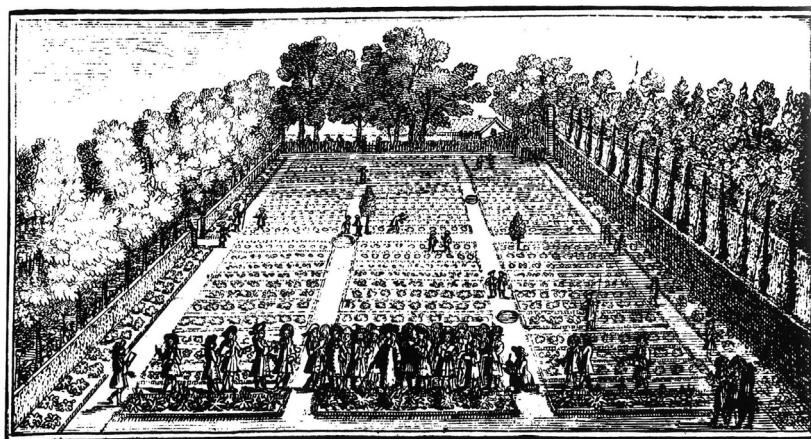
• Portrait of Louis X IV.



• Siam envoy meeting with Louis XIV.

Royal physician's, studying ginseng

In the era of Louis XIV, the King's body represented the state's body. Also, wars broke out frequently at the time and the military and people's health was the most important issue. There were no chemical drugs and drugs back then mostly came from plants. Thus, botanical studies were national projects directly connected to national power. They were greatly interested in medicinal herbs among various products brought in as the country expanded overseas. That is why the 'Jardin du Roi (King's Garden)' was newly built in Paris. The royal physician, medical scientists, pharmacologists and botanists planted seeds collected from foreign countries in the garden and studies them with passion. It was natural that ginseng became a product of interest as it was thought as being a cure—all in China. However, it was a pity that ginseng was so rare and expensive that only a sample could be brought in.³⁶ Antoine de Jussieu served as professor of botany in the King's Garden and he recorded the history and quality of ginseng.³⁷



• Professor Pitton de Tournefort practicing in the 'Jardin du Roi'(King's Garden) in Paris, France.

The king's physician, Claude Bourdelain, also published research papers on ginseng. He stated that the ginseng with miraculous medicinal effects in China mainly grew in Eastern Tatar(Manchuria) and it invigorated patients or seniors who got weak from illnesses.³⁸ In the 'Botanique' section of 《Histoire de l'Académie Royale des Sciences》 published in 1718, there are statements on ginseng acknowledged or studied under 'Sur le Gin-Seng(About Ginseng)'. It is uncertain whether Louis XIV actually took ginseng. However, it is certain that the royal doctors serving for the King's health had been greatly interested in ginseng that was called a cure-all in Asian countries. The French Royal Academy of Sciences owned part of the ginseng presented by the Siam envoy even when decades have passed.

Why was European Scientist Interested in Ginseng?

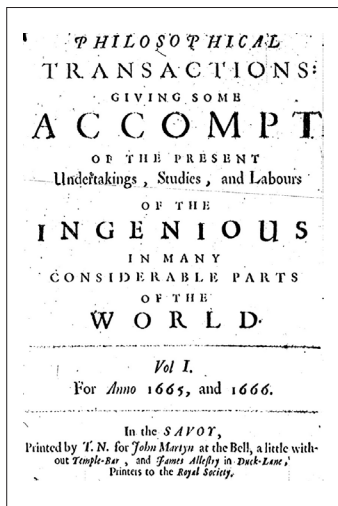
The Scientific Revolution was one of the biggest growth engines that opened modern times. There were several groups that led this revolution. They were the Royal Society of London and the French Royal Academy of Sciences. The Royal Society of London was authorized by Charles II of England in 1662 to publish the world's first science journal. That built a system for the basis of modern science creating the science language, introducing colleague evaluation system and systematically organizing experiment methods. A few years later, Jean-Baptiste Colbert, the Minister of Finance, led the foundation of the French Royal Academy of Sciences. Unlike the Royal Society of London which opened to civilians, it was composed of scientists working for the government under direct control of the King. It was more like an organization for mercantilism policies. Although they differed from one another, they had a great impact instigating historical changes as science replaced divinity.

'Wild ginseng is only grown in Korea' as stated in the Royal Society of London catalogues

The Royal Society of London published the first issue of 《The Philosophical Transactions》 in 1665. It is interesting that a study on ginseng was published in the first issue.³⁹ Ginseng theories were extracted from 《Relation de Divers Voyages Curieux》 written by a French author named Melchisédech Thévenot and translated into English. As a scientist, Thévenot was the scientific research group leader that introduced nature, resources, culture and products of foreign countries in response to mercantilist policies based on his working experience in the Netherlands' East India Company. The group was interested in practical and empirical knowledge such as zoology, botany, geography, navigation and

medicine. The group's vision led to the establishment of French Royal Academy of Sciences.

According to the ginseng theories contained in 《The Philosophical Transactions》, it first described the distinct characteristics of Chinese medicines that used herbs, trees or stones and then introduced ginseng effects that Chinese almost worshiped. This amazing herbal medicine was called 'cure-all' for rejuvenation and health that was worth 3 pounds of silver per pound of ginseng. British scientists



- Image of the first issue cover of 《The Philosophical Transactions》, academic journal of the Royal Society, which published a paper on ginseng

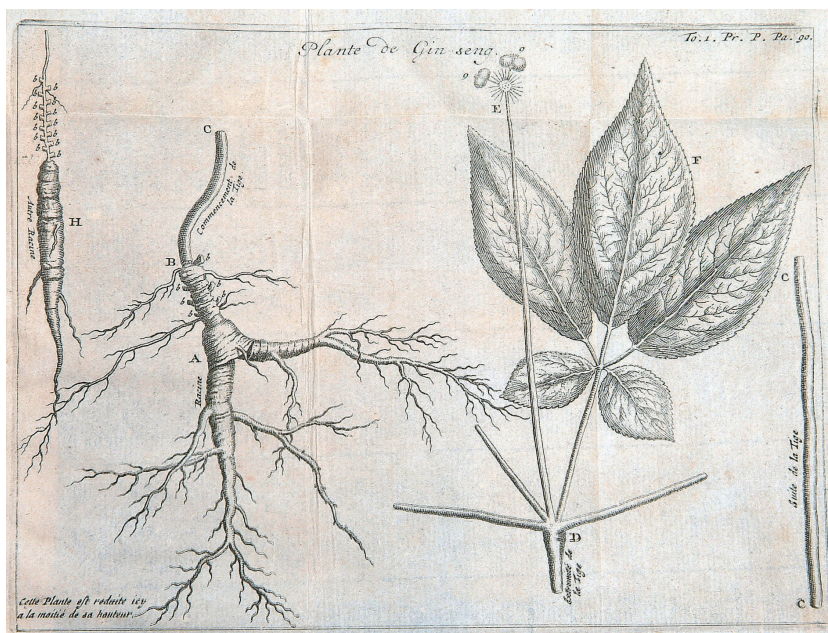
were highly interested in ginseng as ginseng theories were published in the first issue of the Royal Society of London's journal. Soon, many scientists observed ginseng from East Asian countries and started experimenting its effects.

Hans Sloane was the King's physician, who eventually founded the prototype of the British Museum, was particularly interested in ginseng. He had over 13 ginseng samples, besides Japanese ginseng seeds and leaves that were difficult to obtain. His achievements in the field were unequaled. Ginseng roots(The root Ninzin, corruptly called Ginseng) included in the 〈Catalogue of Main Royal Academy Collections〉 prove that ginseng was priceless. The following was described in the catalogue and it is interesting to read that wild ginseng grew only in Korea.

Like mandrakes or other roots, it is split into 2 parts. It was sweet, but also bitter here. It is sweet at low temperatures but gets bitter at higher temperatures. Wild ginseng only grows in Korea, not anywhere in the world. Also, it is widely used in Tongking China and Japan. It is used to treat epilepsy, high fever and other severe chronic diseases. It can solely be used or combined with other drugs. It is very expensive and it has the same value of silver.⁴⁰

Korean Ginseng recorded by Jartoux published throughout Europe

Although Thévenot's theories appeared in the 1650s, ginseng studies in the French Royal Academy of Sciences begun later in the 1690s. Based on information sent by Jesuit missionaries in the Emperor Kangxi's court



- Picture of wild ginseng drawn in a letter sent by French missionary Pierre Jartoux. The letter started research of ginseng in Canada. Source: LG Yeonam Literature in Myongji University

in 1687, discussions on ginseng started. As a result, a report that had the most important role in spreading ginseng in Europe appeared in 1713. The French Jesuit priest named Pierre Jartoux wrote this report.⁴¹ Jartoux traveled around Manchuria to make a map of China at the order of Emperor Kangxi in 1709. When he arrived at the border near Korea, he saw ginseng and got interested. He recorded it in detail such as its appearance, natural habitat and processing methods. In addition, he confessed that he had experienced the effects of ginseng and it was extremely popular. When he was too weak to even get on a horse, he took ginseng and fully recovered. Jartoux thought that if European

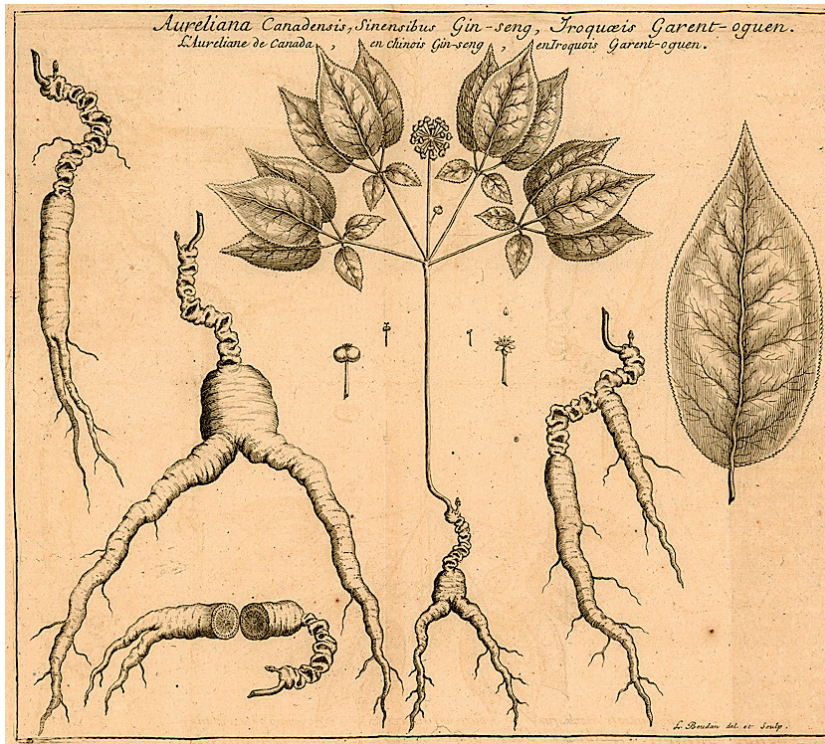
in European history on February 9th, 1736.⁴² Lucas Augustin Folliot de Saint-Vast submitted a thesis titled 〈An infirmis à morbo viribus reparandis Gin Seng?(Is ginseng used as tonics for patients?)〉. Based on the Jartoux's study, Saint-Vast first described the botanical properties of ginseng and suggested evidences that ginseng could be used as drugs. He stated that based on Chinese medical books including 《Ben Cao Gang Mu(Compendium of Materia Medica(本草綱目))》, ginseng was useful in treating diarrhea, dysentery, weakened energy, stomach and intestinal pains, faint, paralysis, lethargy and spasm, and it had unique medicinal effects for rejuvenation.

It is quite interesting that Saint-Vast also pointed out several precautions when taking ginseng. He explained that it has no effect on gourmets and alcoholics, and it should be prohibited when there was fever or inflammatory fever due to infectious diseases and when bitten by dogs or snakes. He also emphasized that it got more effective when properly combined with other drugs. He described that ginseng not only cured disease but also gradually improved health, and it seems that he foresaw ginseng uses on these days. The thesis was eventually published generating great interest and positive responses. It is remembered as the first Ph.D. thesis in Europe which concluded that ginseng was suitable as a tonic.

A Rage after Ginseng in North America in the 18th Century

When ginseng was found in North America in 1716, global ginseng trade changed drastically. Discovery of North American ginseng in fact started in a book. Jartoux's detailed records on ginseng he had seen in Manchuria in 1713 spread throughout Europe, and the French Jesuit priest, Joseph François Lafitau who had read the records discovered a similar plant at 45.31 degrees north latitude between Montreal and Ottawa in 1716. Lafitau thought that it might be the ginseng that Jartoux had described.

In addition, he was surprised that the natives Iroquoians called this plant Garangtoking meaning a person's leg or thigh. It is a similar, in meaning, to a plant that resembles to a man in Chinese.⁴³ The first person to find ginseng in North America was indeed Michel Sarrazin, not Lafitau. Michel Sarrazin was a member of French Royal Academy of Sciences, and he was appointed as the royal physician of the province of Quebec, Canada. He collected ginseng in Quebec and catalogued it as 'Aralia'. He thought that it was similar to Chinese ginseng and sent a memo to France stating



- Sample picture of ginseng in North America.

that it is 'Ningin or ginseng type'. However, his discovery was unnoticed and Lafitau became officially the first person to discover ginseng in North America.

American ginseng that crowded out Asian ginseng

Ginseng was found in North America. Some believed that lots of rare

ginseng might be found in the continent, and it excited those who were interested in trading. However, they were not sure if American ginseng was the same kind as Asian ginseng. There were far more people who claimed that it was just similar but not the same, yet others wanted to believe that it was the same. The British tried to cultivate American ginseng in England for it was easier to obtain samples. Ginseng was planted in Peckham near London, Upton in Essex and Oxford and Edinburgh botanical gardens, but the result was not that good. Botanists planted American ginseng brought in from Maryland, but they were disappointed when there were no sprouts with flowers. They even waited for 3 years, but they got nowhere.

After North American ginseng was found, the French fur traders thought that they might be able to sell it to China. The Dutch merchants also thought they would earn a lot from exporting ginseng to Asian countries and they forced American Indians to search ginseng from the mountains in Canada and America. Soon after, American farmers and botanists and British businessmen and botanists joined the search. Peter Collinson was a botanist as well as a member of the Royal Society of London, who was into foreign trade. He tried to cultivate North American ginseng in England, and started selling American ginseng in China. Ginseng he purchased at 40 cents per pound was sold at 10 dollars and it spread to East Asian countries and China.

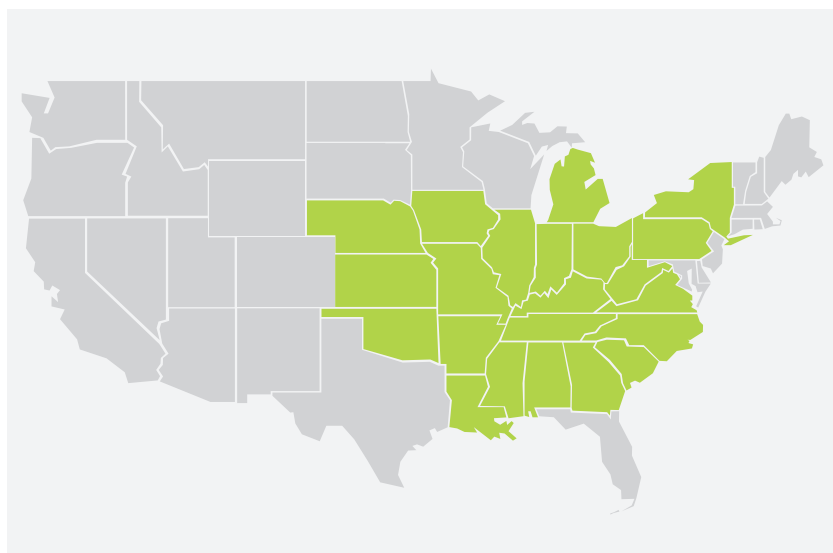
However, North American ginseng was not as effective as Asian ginseng. There were many reports stating that the “Ginseng from Canada is far inferior in terms of color, scent, transparency, components and effectiveness.”⁴⁴ It is also described in a famous novel written by Tobias Smollett, 《The Expedition of Humphry Clinker》. The novel’s main

character doubted that the American ginseng bought in London has the same effects as Chinese ginseng traded in the East India Company.⁴⁵ Even Peter Collinson who exported American ginseng to China earnestly asked intermediary agents not to reveal that his goods were from America. He promised to give the agents the first deal profit if this secret was not disclosed.⁴⁵

Collection of ginseng in large quantity damaged its market value

When a large amount of wild ginseng was found in Stone Bridge, Massachusetts in 1747, people all around America searched for ginseng which was similar to the western gold rush. It was called 'A Rage after Ginseng' which spread to the western Appalachian mountains. The exclusive news that ginseng was found in many places, and Massachusetts, Virginia, Maryland, North Carolina, Pennsylvania, Vermont, South Carolina and Georgia were included the American geography books and textbooks[as ginseng growing states] in the 18th century, or ginseng was registered as 'local product' or representative 'export'. It is known moral hazard occurred among American Indians as they were gathering ginseng. They refused to attend church as they suddenly got rich and committed misdeeds like drowning themselves in alcohol.

Although unknown, there are fairly many great men who got involved in ginseng trading, such as the first president of America, George Washington and the wealthiest fur dealer in America, John Jacob Astor. Among those people, Daniel Boone was the most interesting person. He



- Ginseng farming area in the east coast of North America.

crossed over Appalachian Mountains and settled in America. He was one of the western pioneers known as a fur dealer, but he made a huge profit from ginseng trading. He earned a lot by selling ginseng he gathered from Kentucky in Philadelphia. However, when people knew ginseng was profitable, it was aggressively gathered and there were many areas where ginseng became extinct. Some fell into despair saying that there were no roots anymore in Montreal in the mid-18th century. In 1786, an American ginseng dealer sent a letter to a purchaser in England,

It is very expensive to find the 100 pounds of ginseng you requested. I hired my nephew and walked about 200 miles to the west from Chester County, Pennsylvania. The place was a mess as ginseng had been dug up for sales or pigs had dug it out and ate it. I think it will completely disappear in a few years.⁴⁷

Mass gathering of ginseng caused another problem. As a lot of North American ginseng was traded in China, its price dropped sharply. Collinson blamed that it was the result of western merchants' greed. He explained how North American ginseng could be sold at high prices. "Chinese intermediary agents secretly sold ginseng, but it is now sold everywhere. It turned out be fraud and it became worthless."⁴⁸ He thought those who caused the situation were 'fools'.

Ginseng Prescribed by the Western Doctors

What was ginseng to western doctors? Ginseng was introduced to Europe in the early 17th century and it was explored by scientists and used for medical treatment in the late 17th century. In 1680, William Simpson, a doctor in Yorkshire, England used ginseng for medical treatment and a small booklet of successful cases was published.⁴⁹ For instance, Andrew Marvel, one of the famous poets and critics, suffered from high fever and pulmonary tumors. He was so thin that 'he was a complete skeleton with no flesh' but after he took ginseng he fully recovered and became chubby like a child. William Simpson mixed ginseng extract with milk from red cows and made his patient drink it every day. The ginseng he used was Asian ginseng from the East India Company, and it seemed like Korean Ginseng.

Ginseng prescribed by meticulous doctors

After North American ginseng was found, American doctors prescribed ginseng to cure illnesses. Samuel Stearns in Massachusetts frequently used ginseng to treat chronic cough and lung diseases. He prescribed patients to put sugar in decoction, water boiled with ginseng pieces or powder and drink it as soon as it got cool. It turned out to be successful and it was recorded.⁵⁰ In fact, pharmacopoeias(藥典) or dispensaries published in England and America at that time contained ginseng without exception. There were also recommendations that quality ginseng should be chosen and it was better to infuse ginseng 3 times in water when compounding medicine. However, controversies continued over differences in the medicinal effects between North American and Asian ginseng.

There were mainly two things in common in the recommendations for ginseng prescriptions. First, it was recommended not to take an overdose of ginseng because it could be fatal. It was stressed that it was far more effective to take it for a long time than to take a large amount at once. There was a concrete example. “The rich takes very little of it every morning.”⁵¹ Second, there was a warning not to prescribe ginseng to young people and hot-tempered ones. Since ginseng makes people warm, it may cause too much heat for vigorous, young people. On the contrary, ginseng was described to be highly effective for weak seniors.

There were unsuccessful cases as well. Infusion of hemlock and ginseng was prescribed to cure genital ulceration, but it only got worse.⁵² Ginseng was used to treat males with sexually transmitted diseases for a long time, but some patients did not get better. There were complaints from people

G I N S E N G.

WANTED a quantity of good and well-dried GINSENG, for which Two Shillings per pound will be given, in any kind of goods, if cured agreeable to the following directions, viz. Immediately after digging, wash the roots perfectly clean, at the same time sever the small branches from the main root---this done, string the roots in small bunches as convenient, hang them in an upper room, otherwise out of the sun, where there is a free circulation of air, until they are perfectly dried....By attending to this direction, it will be found, that the roots not only appear of a brighter complexion, but in a great measure retain their size and weight.

WILLIAM MOORE.

N. B. Said Moore has all kinds of West-India GOODS, by wholesale;---also, all kinds of NAILS by the cask---8 by 6 and 7 by 9 GLASS by the box.

Greenfield, August 13, 1787.

- Ginseng advertisement on a newspaper in 1787.

ON SELF-INFLICTED MISERIES AND DIS-APPOINTED HOPES,

With 70 Coloured Engravings, on Steel, price 2s. 6d., post-free from the Author, 42 stamps, the new medical work.

MAN and **WOMAN**: their Physiology, Functions, and Sexual Disorder, including Pregnancy, Miscarriage, Midwifery; Remedies to remove the diseases and Irregularities of both sexes, and to obviate the disadvantages of Marriage. By Dr. Morace Goss, Surgeon, 55, Great Queen-street, Lincoln's-Inn-fields, London. Sold by the Author, and all Booksellers. It contains cases and cures by Dr. Goss's Three Great Restorative Patent Medicines. No. 1. The Restorative Balm of Ginseng, prepared from the real Chinese plant, so famous for restoring Virility, and for curing Barrenness, Weakness, Nervousness, and Physical Incapability, 11s. the bottle. No. 2. The Restorative Alternative, a radical cure for Syphilis, Sores, Skin Diseases, and the Effects of Mercury, 4s. 6d. No. 3. The Restorative Balsam, infallible cure for Gonorrhoea, Gleet, and all diseases of the Urinary Passages, 4s. 6d. Sold at all the wholesale houses, by Lloyd, 65, Fleet-street, and all medicine vendors; also by the proprietor, Dr. Goss, with medical advice and assistance.

Mrs. Doctor Goss attends and corresponds with ladies. Her Female Debilitant Pills, procurable only from Mrs. Goss.

- Ginseng product advertisement on a newspaper in 1855.

that their sexual abilities did not improve even when they had taken ginseng roots for several years.⁵³ These cases demonstrate that ginseng was used as an aphrodisiac at that time among Europeans. One of the well-known pharmacopoeias even stated the ginseng effects in Asia as “it is famous for curing men with impotence developed from having too many sexual relations with women.”⁵⁴ In the mid-19th century, a surgeon in London named Morace Goss developed a ‘ginseng ointment’ and extensively advertised it as effective in treating ‘sterility, anxiety and sexual dysfunction’.⁵⁵

From gastro-intestinal disorders to neurosis, curing all diseases

Before North American ginseng was found, ginseng could not be used easily even by physicians in Europe. It was in short supply as it was not easy getting it. Also, it was so expensive that it could not be prescribed

to patients. A doctor complained, “Ginseng is too expensive to be used as medicine.”⁵⁶ Robert Boyle who discovered ‘Boyle’s Law’, stated, “Ginseng is a medicine from heaven to save numerous people.” He was free to consume ginseng because his father was a wealthiest man in England.

As time passed, a wide range of drugs containing ginseng appeared in England and America. ‘Dr. Anthony’s Ireland Pills’ were widely spread in London in the 1790s and it was known to be especially effective in treating gastro–intestinal disorders.⁵⁷ It was used as ginseng tea or medicine. Doctors who prescribed ginseng tea claimed that all the side–effects caused by Chinese tea could be recovered and it is especially effective in improving weak constitution and preventing scurvy that may develop after long hours of sailing.⁵⁸ Ginseng tea was regularly given to a woman suffering from severe hysteria and crying every day and she fully recovered. These stories were published on newspapers and even eye drops made from ginseng extract were sold in the market. In 1790 there was an advertisement on the British <Times> magazine “50,000 patients suffering from neurosis for 5 years have shown relieved symptoms only by drinking ginseng tea.”⁵⁹

In the 19th century, ginseng was brought up as substitute for tobacco and it was gradually recognized as effective in treating opium addicts. A fancy restaurant called ‘Beau Monde’ visited by famous American politicians would serve ‘Ginseng Punch’ and ‘Ginseng Julep’ becoming a sensation in England.⁶⁰

Ginseng Fields in North America: Expanding Ginseng Business

People who owned fairly large ginseng farms in America gathered to establish a nationwide ginseng association in August, 1916. The American Ginseng Growers' Association started with 103 members and they passionately discussed the necessity of its foundation for 4 days in Lansing, Michigan. The minutes of this conference are valuable records because they vividly show what American ginseng farmers in the early 20th century were interested in.⁶¹ Attendees got into a heated discussion on why they needed an association. Ginseng cultivation areas like Michigan, Wisconsin and Minnesota already had ginseng associations in their states. Therefore, there were opinions against organizing a nationwide organization. These opinions were not surprising as America was composed of independent states.

There were largely two purposes for establishing a nationwide association. Firstly, it was aimed to exchange information more efficiently to prevent and overcome ginseng damages by harmful insects. Ginseng epidemics occasionally ruined several years of ginseng cultivation in a

day. Another purpose was to build a national channel for North American ginseng exports to China. It was to find reliable Chinese agents and dispatch them as resident employees in China. It was to prevent ginseng prices from dropping drastically and to promote exports. In fact, smaller ginseng farmers were not properly paid in sales or exports as they fall victims to agents' or China's schemes. In the first meeting, the association chairperson expressed his desire to have approximately 4,000 American ginseng farmers as members.

Ginseng cultivation guidelines

Compared to Korea, the history of American ginseng cultivation is not very long. Owing to indiscriminate gathering of wild ginseng in the mid-18th century, it started to become scarce and people came up with ginseng cultivation only in the early 19th century. It was not easy to cultivate ginseng using ginseng seeds. Americans did not have proper cultivation techniques and they even believed that unlike Korean Ginseng, North American ginseng could not be cultivated. In the 1870s, Abraham Whisman from Virginia successfully cultivated North American ginseng. Soon after, George Stanton from New York produced ginseng that could be commercialized and he was called as “the Father of American Ginseng” because he developed ginseng cultivation methods. First, ginseng was planted in bare ground and then wooden boards were erected to block some sunlight. Stanton's ginseng field was only about 12m²(129 square feet) and when dried after harvesting, the yield only weighed 5 pounds. In the 1880s, commercial ginseng cultivation began

in Pennsylvania, Ohio, Michigan, Kentucky, Indiana, Wisconsin and Minnesota.

As ginseng cultivation started and the number of ginseng farmers increased, promotional ginseng leaflets started to appear. An article about ginseng published in 〈Scientific American〉 in 1891 was translated in several Asian newspapers and attracted attention.⁶² The article described Chinese ginseng in detail and introduced its reputation and effects. It also explained that North American ginseng was not the same kind as Chinese or Korean Ginseng. However, there was rather inaccurate information like ‘North China that is cold and dry rarely consumes ginseng’ and ‘South China that is hot and humid takes a large amount of ginseng in tea, food and medicine.’

Various booklets on ginseng cultivation were published and the US Department of Agriculture had already started distributing ginseng cultivation manuals since 1895. In addition, it published books on ginseng cultivation know-how in Q&A format where answers are given in response to ginseng farmers’ inquiries. There were even manuals focused on ginseng damages. There were research reports on ginseng effects experimented in the University of Michigan as well as business books on ginseng commercialization strategies and specialization. A wide range of guidelines that are worth referring to even in modern perspectives were published.

Korean Ginseng is the best ginseng

An introductory book for public readers titled 《What is Ginseng?》 is

especially interesting.⁶³ The book author rated Korean Ginseng high, stating that it was the best ginseng even in China. He described a scene where the Chinese high official carefully opens the ginseng package sent from Songdo(Gaeseong).

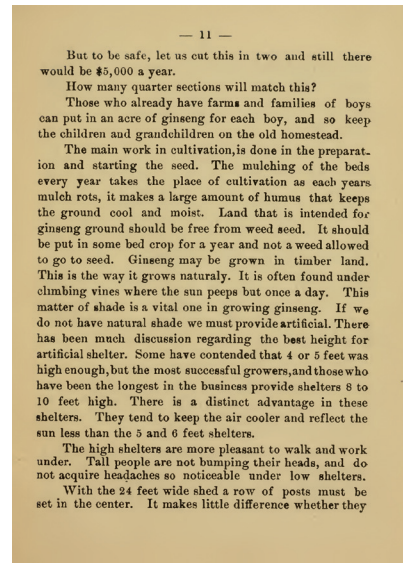
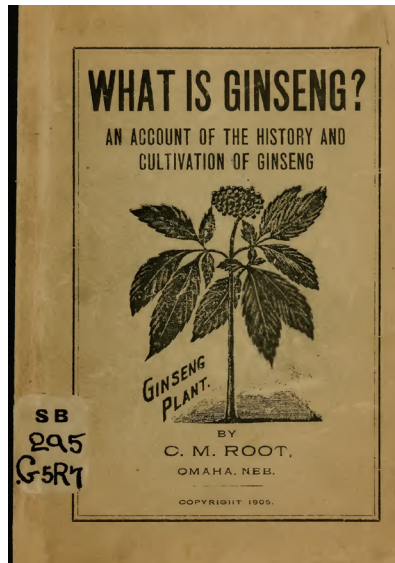
A willow basket is covered with a waterproof material made of closely woven silk. The Imperial seal will be on it. The custom house marks a register number.

A layer of scented wood dust mingled with fluffy cotton or the waste of silk cocoons comes first. This layer is removed and now appears a layer of little packets of white and gold papers. Each packet contains a small quantity of unslaked lime, to avoid any moisture which might damage the root. These packets of lime lie both above and below the ginseng.

The last act is unsealing the precious root, for which all this preparation was made, removing the last envelope of embroidered silk or of crimson and gold fish skin. When the real thing is reached it is found to be a small dried object 4 or 5 inches in length with a glistening surface something like uneven amber that resembles in miniature the headless body of a man.

The author praised that 'ginseng is the most valuable crop on earth' and requested never to purchase ginseng seeds from Japan. He explained that ginseng 'is too expensive to do anything worthless.' He also emphasized that although North American ginseng was traded at lower prices, it was the best high return crop that can be produced in small fields with less labor. He advised to cultivate ginseng in a small land if you suddenly became a widow with children and a hopeless future.

Interestingly, there is a story about ginseng farming is a test for a ginseng farmer with several sons to decide who will inherit the farm, 10-dollar

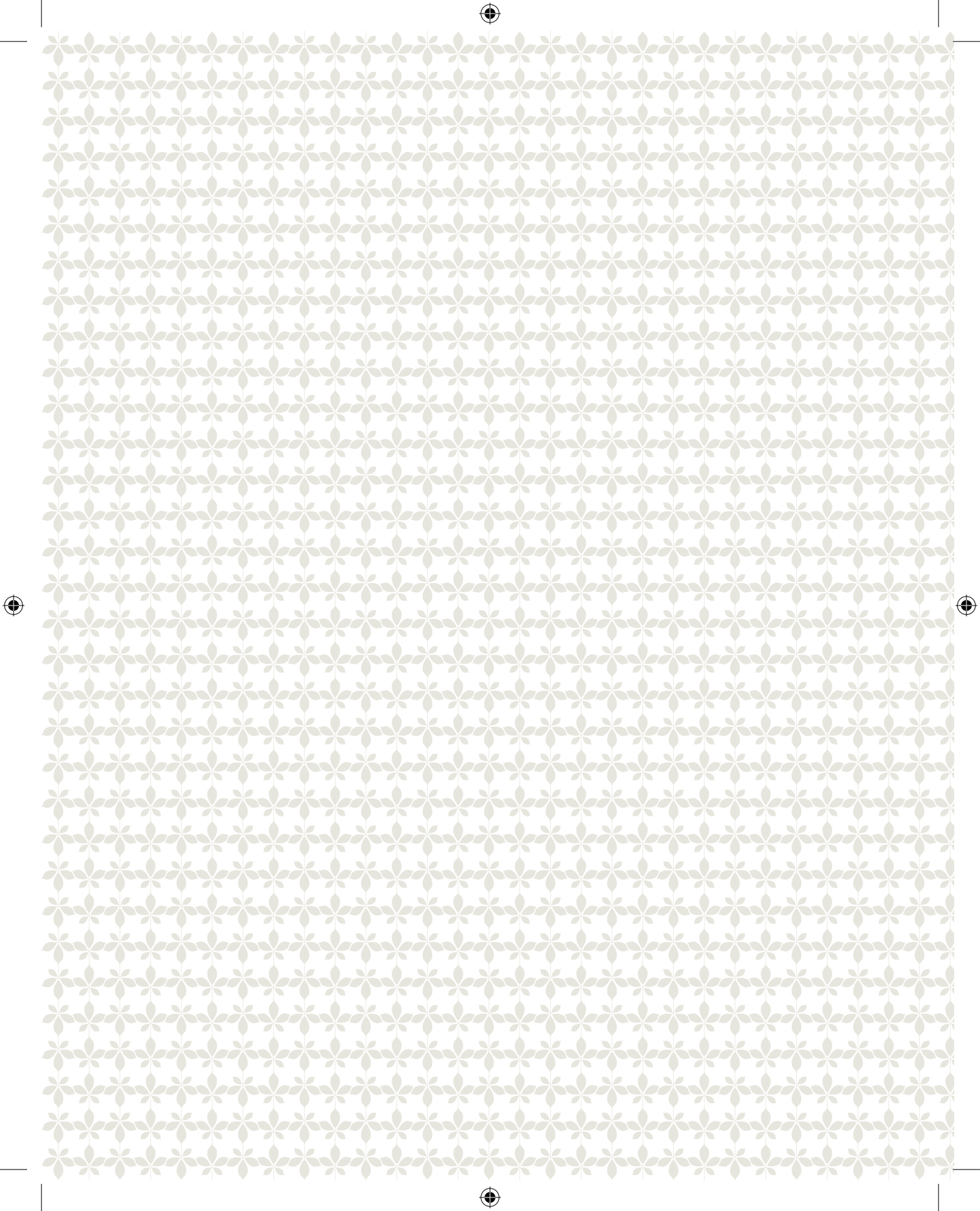


- Book covering ginseng cultivation guidelines, (What is Ginseng?) (1905). The book highly praised the value of ginseng



- Landscape of early Ginseng farms established in North America

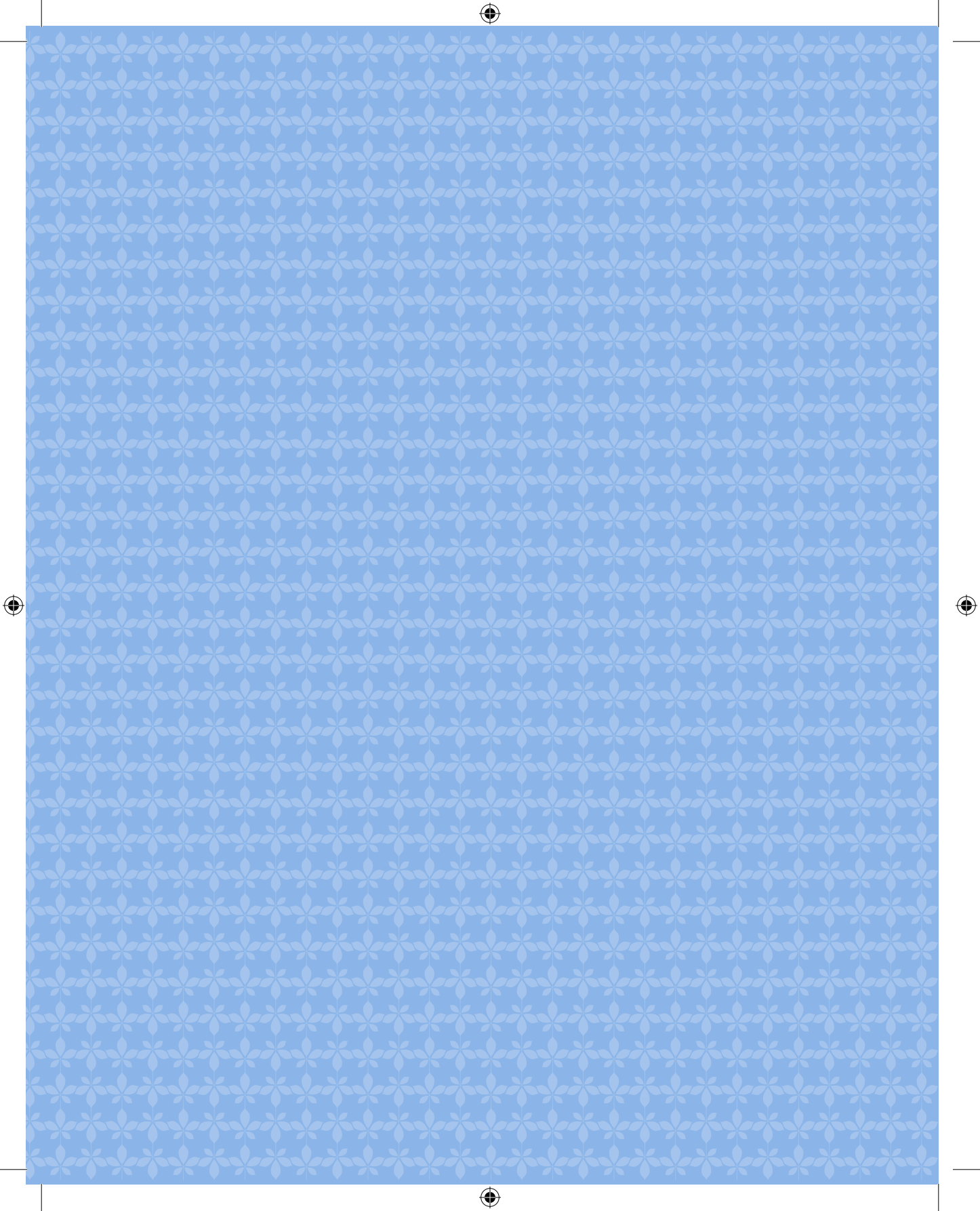
worth ginseng seeds are given to each child and the farmer waits to see what happens. A child may sell the seeds and save the money earned, or may purchase his own clothes or use them to pay for school tuitions, or may move out from the house. However, the one that cultivated ginseng from the seeds will inherit the farm and properties. It implies that ginseng cultivation is very difficult rocation and it needs patience and business skills.



04

Ginseng with Figures and in Arts

- The Best Gifts and Touching Letter
- Luxury of the Highest Authority
- Ginseng, Material for Writing Novels
- Love for Ginseng in Foreign Novels
- Ginseng Songs for Around 1,500 Years
- Why was Ginseng Used in Kabuki?



The Best Gifts and Touching Letters

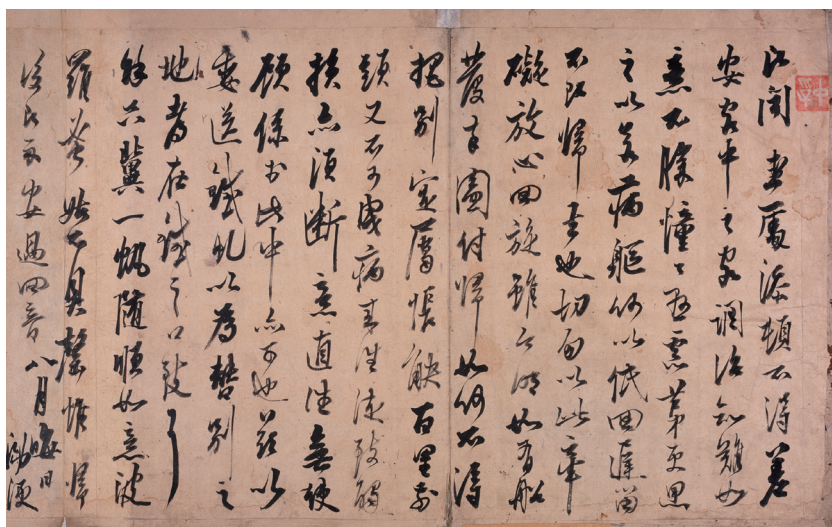
Gifts are to express respect and gratitude. They are not merely things, but they define who you are. Gifts to dignitaries are very significant in diplomacy. The country leaders carefully choose gifts that symbolize state culture or are artistically valuable. Korean Ginseng is frequently given to foreign leaders visiting Korea. It shows that it is one representative Korean brand.

Kim Jeong-hui's present to his teacher

From ancient times, ginseng has been priceless and as a gift, it expressed one's heart. A letter between prominent intellectuals at that time demonstrates this. 《Wandangpyeongjeon》 is a critical biography of Chusa Kim Jeong-hui(秋史 金正喜) written by Yoo Hong-joon(俞弘濬) and it describes as follows.

"The 2 ginseng roots you have sent me are very delicate and they are greatly helping my health. Doctors said that they have never seen such an outstanding ginseng. It is a great help to me every day. When I cannot fall asleep, I would take this and it will help me relax. You keep sending me ginseng roots for decades and they strengthen the energy for this old man..."

The most famous calligrapher as well as thinker in the Joseon Dynasty, Chusa Kim Jeong-hui sent ginseng gifts to his teacher in China, Fanggang Weng (翁方綱). In response, he wrote a letter of gratitude to Kim Jeong-hui.⁶⁴ Chusa was a member of the Qing Dynasty envoy's, Dongjisa in 1809, and at 24 he stayed in Yanjing (燕京, old name of Beijing) for 60 days. There he met a great scholar named Fanggang Weng and a well-known calligrapher named Ruan Yuan. He was able to extend his knowledge and skills in interactions with them. After he came back to Hanyang, he



- Letter sent to Seon Master Chou from Chusa Kim Jeong-hui. The excellence of his writings is still praised today. Source: National Museum of Korea



- 〈Sehando〉 by Kwon Do-in, a close friend of Kim Jeong-hui. Source: National Museum of Korea

continued scholastic exchanges with Yanjing scholars via letters, and sent and received books, poems and paintings, brushes and paper as gifts. Chusa was anxious about Fanggang Weng's health for he was in 80s back then, so he sent Joseon ginseng. His gratitude is well expressed in the letter where he shows his affection and respect toward his pupil.

There is another story about Chusa sending ginseng. Kim Jeong-hui first comes into our minds when we hear about Sehando(Wintry Day; 歲寒圖); yet, there is another great writer named Gwon Don-in(權敦仁) who also painted Sehando. He was the prime minister under King Heonjong's rule. He was expelled and then exiled as he fought with the Kims of Andong over seasonal ancestor-memorial rites. Kim Jeong-hui who shared a friendship with him during his entire life under political suffering sent him ginseng. Gwon Don-in received ginseng and sent a letter to Kim Jeong-hui showing his gratitude and friendship.

"In the 11th and 12th months of the lunar calendar, mail could not be sent by ship(船便).... It took almost 60 days.... You sent me lots of ginseng and tobacco. I recovered



my energy(元氣) by taking ginseng and prevented mephitis(瘴氣) through smoking. I really appreciate our kindness.”

A foreign student from Silla, Choi Chi-won's gift of gratitude

The greatest writer of the Silla Dynasty named Choi Chi-won(崔致遠) also sent ginseng gifts to Chinese officials. He humbly showed how valuable Korean Ginseng was in a letter to the Chinese officials.

Ginseng resembling a Haedong person is inside a silver-decorated case.

Gayageum(Korean musical instrument with 12 strings) that cherishes the heart of Haedong is inside a purple, silk bag.

Ginseng contains nature and the gayageum sound is elegant.

It takes shape without defects and it is perfect without virtual images.

(...)

It is truly not much but I wish you a long life.

Ginseng was gathered at the sunrise area and crossed the heaven and earth.

It is called Samahoyeop(3 stems and 5 leaves) with nothing special.

However it still has a natural scent even when it crossed through rough waters and mountains.

It is presented not listing all amazing effects.

Medicinal herb for people living along the seaside may be the old man's small herb.⁶⁵

As a student studying in China at the kingdom's expense, Choi Chi-won passed the state examination during the Tang Dynasty and served as

an official. As Jongsagwan(a government post) while reporting about treasons and rebellions, he sent a letter including ginseng and gayageum brought from Silla on the high-rank official's birthday. The letter describes the shape and scent of ginseng. There is a phrase that its scent still remains even when it crossed mountains and it implies that Silla ginseng quality was good. Of course, it was wild ginseng. It was difficult to gather wild ginseng at that time, but it is more surprising that ginseng could be brought from Silla to Xi'an(Tang Dynasty capital) without losing its scent.

The three letters on ginseng written by the greatest scholars in the Silla and Joseon dynasties show affection and respect toward their loved ones even after 1,000 years. Their hearts are as deep as the ginseng with a scent that did not fade away even after crossing over rough mountains and seas.

Luxury of the Highest Authority

In one of 4 major Chinese books, 《His Yu Chi(Journey to the West; 西遊記)》, Son Goku(Sun Wukong) gets into trouble for he showed greed over ginseng. It is described in the book that the ginseng fruit resembles a baby having eyes, nose, lip ears and limbs shapes. With its heavenly energy, people may live up to 360 years just by smelling ginseng and up to 47,000 years by taking one. It is depicted as a miraculous medicine. China might have thought that ginseng is the herb of eternal youth. The ginseng fruit described as a human symbolizes the ginseng itself.

Miraculous herbs of youth loved by kings

The biggest dreams of ancient kings were eternal youth and immortality(不老不死). We are now hoping for good health and longevity supported by modern medical science, but in ancient times, people sought herbs for eternal youth. Ginseng has been recognized as a miraculous medicine for



- Statue of Seobok and Qin Shi Huang looking to the east seeking herbs for eternal youth. Source: Korea Creative Content Agency

longevity in the Oriental culture, Ginseng was essential for royal families in Joseon and China, and it is frequently recorded in documents of that era.

In particular, a legend of Qin Shi Huang(秦始皇) shows our dreams for perpetual youth. According to the legend, Qin Shi Huang sent Seobok(徐福) a person with miraculous powers(方士) and 3,000 male and female children(童男童女) to Three God Mountain to get herbs for eternal youth. This legend represents people's earnest wish for eternal life. The miraculous herb for perpetual youth was Korean Ginseng, and there are stories that Three God Mountain may be Jirisan or Hallasan in Jeju Island. Emperor Minh Mang(1820~1840) was a reformist Vietnamese king in the 19th century and he was a ginseng lover. Minh Mang Tang(明命湯) was a traditional alcoholic health drink in Vietnam that the emperor enjoyed and it was known to be good for stamina. The most important

ingredient of Minh Mang Tang was Korean Ginseng. Various herbal medicines and ginseng as a finishing touch were used to make quality Minh Mang Tang. It was recognized as a prestigious liquor only when Korean Ginseng was used. Chinese and western ginseng were introduced in Vietnam in the 19th century and competed with Korean Ginseng. Yet, Korean Ginseng was the greatest among them. Even now, it is regarded as an aphrodisiac in Vietnam. This may be because the ginseng-lover emperor had 142 children. Thus, it is only natural that ginseng was regarded as an energy source.



- King Yeongjo enjoyed the longest life of all kings using ginseng. Source: eMuseum Portal

China, Japan, Southeast Asia and even European royal families patronized ginseng. It was important to them to know the country from which ginseng originated. According to *Annals of the Joseon Dynasty*, ginseng was prescribed to kings when they were in critical condition or for fatigue recovery. King Yeongjo of the Joseon Dynasty lived up to 82 years. According to the king's doctor, King Yeongjo believed that ginseng was the secret to his health. He took approximately 20 guen(1 guen = 600g) of

ginseng at 72 for a year and around 100 guen for 14 years from 1752 to 1766.

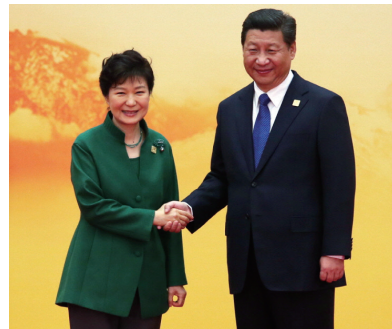
Also, Seo Yoo-mun(徐有聞) who visited Yanjing in the 22nd year of King Jeongjo's rule wrote 《Muoyeonhaengrok(戊午燕行錄)》 that described the local Chinese situation. The document stated that Emperor Qianlong(乾隆帝) of the Qing Dynasty decocted red ginseng every day to cure his serious illness. A merchant from Beijing said, "Emperor Qianlong ate too much cold food on the first day of the twelfth month when his illness became severe. He took 4 guen of decocted red ginseng every day."

Ginseng for prominent figures' health

In modern times, Pope John Paul II and President François Mitterrand of France took Korean Ginseng, attracting public attention again. It shows that ginseng is a God's gift loved by leaders of all ages everywhere in the world.



- Pope John Paul II visiting the sacred temple in Mt. Jeoldu on May 3, 1984. Source: National Audio Visual Information service



- During the APEC summit meeting in 2014, President Park Guen-hye shaking hands with Premier Xi Jinping. Source: The Blue House (Cheongwadae)

Given only 3 months to live, President François Mitterrand could extend his life with Korean Ginseng. During his tenure as president, he was diagnosed with cancer in 1995 and struggled against it. The president's doctor, Philip de Kupper heard that Korean Ginseng was good for treating cancer and obtained ginseng extract from Korea. He retired in May 1995 and starting ginseng for 7 months the month after. He could not overcome cancer, but many believe that it was Korean Ginseng that extended his life for more than 6 months.

Pope John Paul II was also known to enjoy red ginseng tea. The Vatican ambassador in 1999, Bae Yang-il said, "I presented the Pope with red ginseng tea." He got a tip from the bishop that the Pope loves red ginseng tea. Since then, the ambassador occasionally sends red ginseng to the Pope. Goryeo ginseng is one of the gifts presented to foreign heads of states visiting Korea. When the Chinese Premier Xi Jinping visited Korea in July, 2014, heaven-grade ginseng (chunsam), the best red ginseng, was given to him. Chunsam accounts for only 0.5% of the total red ginseng produced and it is far more expensive than silver of the same weight.

Ginseng, Material for Writing Novels

Ginseng is common in Korean novels. There are stories about ginseng and related subjects like ginseng tea houses, Doksamtang(獨參湯) and bribing with ginseng in novels. We are familiar with Hyun Jin-gun's novels like 〈A Lucky Day〉 〈Poor Wife〉 and 〈The Society that Drives Us to Drink〉 and he frequently used ginseng in his novels as well.

She had never taken medicine before and when she had ginseng and antlers, it showed an outstanding effectiveness like a miraculous medicine. Choi Jubu forgot to calculate his gains and losses just to relieve his pain faster

—〈A Lucky Day〉

In his novel 〈Degenerate〉, the main character says 'I' fall in love with gisaeng, Chunshim. She offers Doksamtang to the main character for strengthening his body.

Chunshim laughed out loud and suddenly hugged me. It made my hair stand on end, as if attacked by a witch. Two shadows disappeared into the blanket... I drank Doksamtang and said goodbye to her shivering at the door. I came out to a trackless, lonely street.

Gaeseong writers vividly described ginseng in novels. One of those novelists is Park Wan-suh(朴婉緒). His hometown is Gaeseong and he reflected in his novels about the ginseng he had seen and heard in his youth. In a full-length novel titled 《The Unforgettable》, ginseng soup(boiled ginseng) was served to a high-rank official from Songdo and he was treated like a VIP.

It was called ginseng soup because ginseng leaves and skins were boiled in water, and even soap was unique for they were made from ginseng. They could enjoy white ginseng powder tea or red ginseng extract tea with ginseng wafer or ginseng preserved in honey. It was so luxurious that even high-rank officials from the central government boasted about it.

Depicting Gaeseong when ginseng soup was popular, in 《The Unforgettable》, the Gaeseong ginseng farmers undergo hardships while preventing Japanese ginseng thefts and the main character who got wealthy because of ginseng supports the independence movement.

《Black Flower》, written by Kim Young-ha(金英夏), tells us a sad history about Korean emigration to Mexico where a ginseng dealer that went into Yucatan Peninsula appears. He reports about the overseas Koreans in America and their miserable lives in Henequen, Mexico, suffering from the murderous heat and labor and inhumane treatment. It was written based on true stories, thrilling our emotions.

I am Park Man-seok, a ginseng seller in San Francisco. I travel to places where Chinese people live and sell ginseng. But, what happened? Park clicked his tongue as he looked at their hands and feet tied to the columns. ... He pitied Lee Jung and Dol-seok wearing ripped summer clothes with no shoes and handed over 1 peso each. I will report this to our country. Waiting a little more, Park Man-seok sent letters to official newspapers and Korea Daily News. His letter written on November 17th arrived in Joseon in December and was published in newspapers.

A monologue of Hwang Jin Yi in Kim Tak-hwan's novel 《I, Hwang Jin Y》 is as follows,

Some people praise the fact that my skin is better than that of Guan Fu Ren⁶⁶, but wearing makeup for 10 years(it is a makeup technique for gisaeng in which a lot of powder is applied to cheeks with dark eyebrows. It looks as if you are smiling and as a make-up side effect, sores and red spots may appear) left me with several scars. Even ginseng water(water boiled with ginseng leaves. Skin gets smoother when bathed with this water) cannot remove the scars.

Gaeseong women used by products like ginseng leaves for makeup at that time. They even used ginseng water for baths to smoothen their skin. The ginseng floral parts were collected during the blossom season and put into water for bath. Also, it was known that ginseng-leaf tea was excellent in preventing freckles and blemish spots as well as wrinkles. So, court ladies in the Joseon Dynasty bathed in ginseng water to gain the king's favor. Among the 7 effects of ginseng, 'Takdokhapchang(托毒合瘡)' means that it is effective in removing body toxins for better skin texture and relieving sores.

Ginseng appears in Western novels as well. Authors may have taken

ginseng and found it effective, or heard stories from others, which are reflected in novels. The main character, Ben Bradford, of a best-selling novel, 《Big Picture》 written by Douglas Kennedy takes ginseng every morning.

There were nine pills laid out across my office desk. One 150 mg capsule of Zantac for gastric acid. Two Korean Ginseng softgels for natural energy. Two 5 mg tabs of Dexedrine for chemical energy. A monster 5 mg dose of Valium for stress. And three tabs of Beta Carotene to keep my system detoxified. ...

There is also a scene where the gallery owner, Judy, who wishes to exhibit and sell Ben's photographs, takes ginseng.

But eventually I decide – if he wants disclosure, I'll give him disclosure. So, I sell up the gallery, book myself in for a retreat at this great holistic five-star resort in Idaho. Anyway, one day when I've had enough of the ginseng diet they've got me on, I will rent a car and drive east two hours in Montana.

When Douglas Kennedy visited Korea in April 2016, he revealed that he was in love with ginseng. He took ginseng capsules whenever he needed to concentrate or write stories for long hours. In conversations with readers, he said that ginseng eliminates fatigue and one of his devoted readers surprised him with Korean red ginseng.

In the late 19th century, a British soldier named Evan James wrote a travel piece, 《Baekdusan》. He had a severe stomachache while climbing the mountain and although he did not believe in any of health claims of ginseng before, he was surprised that ginseng tea relieved pain.

In fact, it reported to the International Ginseng Symposium that ginseng was effective in eliminating *Helicobacter pylori*, which is the main cause of gastrointestinal disorders. It seems that the West was engaged in medical discussions on ginseng.

The distinguished Russian writer, Maxim Gorky was also a ginseng lover. His close friend, Yevgeny Zamyatin wrote Maxim Gorky's memoirs after his death in Paris. Yevgeny Zamyatin had critical opinions on Soviet Communism and he was politically persecuted. With Maxim Gorky's help, this novelist was able to flee the country. He spent a lot of time with Maxim and wondered how he could work so passionately. Yevgeny Zamyatin reminisces as below.

How many hours a day are there for Maxim Gorky? He constantly coughs as cigarette smoke comes out between the reddish mustache and tuberculosis has almost dominated him. But where does the energy come from? I once asked him. With a mysterious look, he took me to a snack bar. He held a dark, gourd-shaped bottle in front of me and explained that it contained ginseng juice with magical effects. Someone who respected him brought it from Manchuria. Wouldn't it be more reasonable to say that his belief was like ginseng?

Yevgeny Zamyatin must have believed that Maxim's passionate activities and writing came from ginseng.

Ginseng Songs for Around 1,500 Years

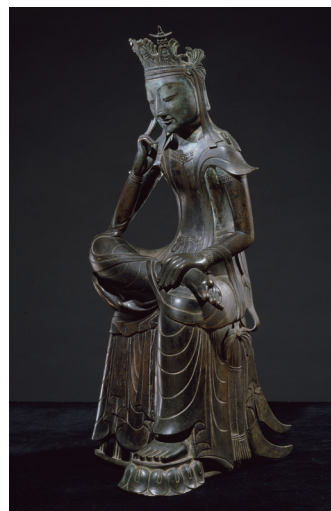
- 1 A flower stalk came up through the dark
Clear blossoming sounds of ginseng flower
A transparent window appears as we casually follow till the end.
- 2 A man pushed up the flower stalk
Then, he sat with legs half-crossed under the ground.
Looking into the window, ginseng flower in my eyes
Calm and quiet even when muddy water splashes on body, at the state of
complete absence of ego.
In deep, tranquil Zen meditation
That man, pensive bodhisattva of ginseng shines brightly.
- 3 All of a sudden, a coal tit flies in silence.
A full moon appears after it flew away over the mountain,
His silent thought is in full blossom, shining upon me.

—(Insambangasayusang)

It is a *sijo*(traditional three-verse poem) written by Bae Woo-sik that won the <Chosun Ilbo> annual spring literary contest in 2009. Poet Lee Guen-bae estimated that ginseng root born as a human figure with thoughts after long years in the ground is depicted well with sound and color. He continued saying that ginseng is not a common writing material, yet his ability to portray nature and human thought in clear images is reliable. This poem can be compared with the traditional Chinese poem, <Insamchan(人蔘讚)> that literally expresses ginseng features. Tao Hong Jing in the Liang Dynasty published 《Bonchogyegonggipju(本草經集注)》 by collecting information from 《Myeonguibyeolrok》 and 《Shinnongbonchogyegong》, and it included <Goryeoinsamchan(高麗人蔘讚)> wrote by a person from Goguryeo. Tao Hong Jing published the book around the late 5th century, so this



- There are many resemblances between ginseng and bangasayusang as the poem 'Ginsengbangasayusang' describes.



- National Treasure No. 78 Kuemdong bangasayusang. Source: National Museum of Korea

poem might have been written before that.

三桠五葉 背陽向陰

欲來求我 楸樹相尋

Three stems and five leaves / toward the shadow with the sun behind

If you want me / go where overgrown with lime trees

〈Insamchan〉 realistically describes the ginseng appearance. It also states that ginseng is well-grown at shades and it naturally grows among lime trees in the mountain. The traditional Chinese poem writer is unknown, but it could be an envoy or scholar visiting China frequently with in-depth knowledge of ginseng and fluent in Chinese. The mystery of ginseng is addressed in awe and praise for over 1,500 years from the Goguryeo writer in the 5th century as well as the Korean poet in the 21st century.

Why was Ginseng Used in Kabuki?

When Apple releases new iPhone devices, Apple enthusiasts stay all night long lined up to purchase one. On the day of luxury brand bargain sales, people wait in tents before the sales begin. Such bizarre scenes were observed in Japan in the 17~18th century to purchase Korean Ginseng. It was not rare to see people lined up to buy ginseng in the Edo period. In particular, there was a ginseng sensation at the reign of Tokugawa Yoshimune(徳川吉宗)(1716~1745). The interest Japanese people shown in Joseon medicines was recorded in 《Donguibogam》 that was brought by Joseon Tongsinsa and people purchased ginseng for speculative purposes. Even before that, people encountered ginseng in the period of Tokugawa Tsunayoshi(徳川綱吉). As the 8th shogun, Tokugawa Yoshimune had a reputation for strong reforms in the shogunate government. Yet, some say that he spent too many silver coins to purchase ginseng, thus economical reforms were inevitable. These ridiculous events caused by ginseng waves combined with culture and arts to create more interesting stories.

All about ginseng in the Edo period

In 1674, a ginseng market(人蔘座) appeared in Edo. As demand for ginseng drastically increased among the upper and working classes, the shogunate government built a ginseng market for fair ginseng trades. It was to prevent highly commercial activities and those trading fake ginseng were even sentenced to death. It was located in the center of Edo and it was always overcrowded with people having ginseng fever. Before the day when ginseng sales started, people would line up or pay others to line up. Samurais especially occupied the market and waited for the market to open in the early morning in front of a bonfire. There were complaints that fire may occur nearby and the ginseng market was relocated several times.

When the daily sales target set in advance to prevent running out of stock was reached, the market was closed even during the daytime. There were rumors that some servants tried to kill themselves when they could not buy ginseng. When unsavory incidents occurred owing to fierce competition to purchase ginseng, the shogunate government prohibited ginseng retail businesses in 1710. A Shilhak scholar of the Joseon Dynasty, Yi Ik(李穡) wrote as below in 《Seonghosaseol(星湖僊說)》 to describe the local situation. “Japanese used ginseng to treat illnesses and those who could not obtain it would not live. If ginseng trading were banned, people would fight for ginseng which may lead to death. Thus, ginseng trading had to be allowed.”



- Street landscape of the Edo Period in Japan.



- Ginseng at the end of the Joseon Period in Saga Prefectural Nagoya Castle Museum(Presumed to be a thin ginseng).



- During the Edo Period, the Tokugawa shogunate issued a special currency Insamdaewangoeun (人蔘對往古銀) used only to import Korean Ginseng. The currency 10 cm long contained 80% silver and weighed 210 g. In 1710, 1 gwan(3.75kg) of ginseng could be purchased with 120 of Insamdaewangoeun.

Kabuki of the Tongsinsa murder case

Ginseng resulted in another mysterious death. An officer in Joseon Tongsinsa was murdered in the 11th mission to Japan in 1764. It was an unprecedented event affecting the diplomatic relations between the two countries. When Joeum(趙巖)'s envoys to Edo prepared to return home around April 7th, a military officer in charge of the military detachment named Choi Cheon-jong(崔天宗) was killed in the shelter. Suzuki Denjo(鈴木傳藏), a trader from Tsushima was arrested. During the interrogation, he confessed, "Choi Cheon-jong lost a mirror and blamed me for stealing it. He whipped me and I killed him in rage." However, it was well known that there had been disputes on ginseng prices among traders. This incident was staged on Kabuki, the traditional Japanese play, and



• Black and white postcard showing the landscape of a Kabuki theater in Tokyo, Japan.
Source: National Museum of Korea

reflected in Japanese literature.

According to Professor Heo Myeong-jin from Yonsei University, most Japanese documents including 〈Myeonghwajapgi(明和雜記)〉 or 〈Sasilmunpyeon(事實文編)〉 recorded that disputes on ginseng prices led to murder.⁶⁷ A series of foreign murder cases based on the murder of Choi Cheong-jong were staged on Kabuki and Joruri(a traditional performance with narrations and instrumental accompaniment). It was staged 42 times from 1767 to 1883 in Osaka and Kyoto, and 5 times in Edo. There were lots of audiences as Kabuki was popular, but it was eventually banned.⁶⁸ It is likely that the shogunate government concerned that it might lead to diplomatic problems applied pressure, and the plot was changed later.

Japanese proverb, “Take ginseng and hang yourself”

《Edoguimonohitoriannai(江戸賣物獨案内)》 published in 1824 was a shopping guidebook that introduced 3,000 stores and goods in Edo. The guidebook introduced ‘Joseon Ginseng’ and it was advertised as a “miraculous medicine for longevity and eternal youth prescribed by Lee Dal-seong from Baekjae”.⁶⁹ This demonstrates that ginseng was very popular in Japan. It was a cure—all that could even raise the dead. Yet, it was ironic that ginseng’s popularity sometimes would lead to death.

The Japanese national literature, 《Chushingura(忠臣藏)》 contains such a story. The best medicine in Edo, Korean Ginseng was used to revive a person, which reflected the Japanese belief on Korean Ginseng. However, the story ends ridiculously in that the person could not pay for his debts caused by the expensive ginseng and hung himself to death. There is a proverb in Japan derived from this story. “Take ginseng and hang yourself.” There is another folktale that a girl sold her body in the licensed prostitute quarter and purchased ginseng to cure her father’s illness. It occurred in Oshihara which is now Asakusa in Tokyo. There were licensed quarters in Oshihara during the Edo period when Tokugawa shogun permitted state-regulated prostitution. The story reflects the Japanese beliefs on ginseng that were known for eternal youth.

How well do you know the effectiveness of ginseng?

Q Is it true that eating ginseng makes you hot?

A That's not true. Ginseng doesn't affect body temperature. Ginseng helps blood circulation, and faster blood circulation causes energy to be supplied faster, which makes you feel hot. But the body temperature doesn't rise. It is similar to feeling less cold in winter after a meal. In 2012, The Rural Development Administration ran a Korea-China joint international study to find out whether ginseng makes your body temperature rise. An experiment on the human body was conducted using Korean ginseng, western ginseng (*Panax Quinquefolius*), and a placebo(fake medicine), and the results didn't show any difference in body temperature before and after consumption. In 2013, Professor DC Yang of Kyung Hee University also confirmed through a clinical experiment that ginseng does not raise the body temperature.

It is recorded in 《Donguibogam》 that ginseng has warm (溫) properties. This doesn't mean it is hot, but rather that it has gentle(溫厚) properties. Despite this fact, exporters of western ginseng – *Panax Quinquefolius* – used this as a marketing point, aggressively advertizing in the Chinese market that Korean ginseng raises body temperature but their ginseng lowers body temperature, which has become a popular myth. However, it was clearly proven by various scientific research experiments that ginseng does not raise body temperature.

Q Is it ok to have ginseng in summertime?

A In Korea, samgyetang has traditionally been the choice of food to help reinvigorate oneself and fight the heat. Also, in herbal medicine, ginseng is included in Saengmaeksan tea, milk vetch ginseng soup, and Cheongseoikkitang soup, which are prescribed a lot for heatstroke and fatigue in summer. People get tired quickly and weak in the heat of summer. Ginseng helps us reinvigorate our bodies so that we can stay healthy throughout the summer.



Q Are some people better off not taking any ginseng?

A Ginseng is a very safe herb medicine that has very few side effects, so in most cases it is safe to consume ginseng. However, there are occasionally people who are sensitive to ginseng. The most common symptoms are redness in the face, itchy body, loose bowels, and rashes in extreme cases. However, this is just like some people who get allergic just by standing in a peach orchard or rashes just by eating shrimp. Such people who are sensitive to ginseng can start with a low dosage and gradually increase the amount they consume. In most cases, this will solve the problem.



Q I heard a rumor that ginseng increases the risk of breast cancer.

A Definitely not. Ginseng actually helps treat cancer. There is a hormone therapy that is one of the methods used to treat menopause in women. The problem is, although the therapy is very effective, it increases the risk of breast cancer. Ginseng is safer, because although it can improve the symptoms of menopause, it doesn't increase the risk of breast cancer.



Q Should ginseng not be consumed after surgery?

A Ginseng has the effect of prohibiting platelet cohesion. This prevents blood clots and enhances blood circulation. Generally, this has positive effects on the body, but it may make the bleeding stop more slowly when somebody is bleeding or if they are a surgery patient. So, anyone who is bleeding should refrain from consuming ginseng and, if you are getting an operation, stop taking ginseng at least one week before and after surgery.

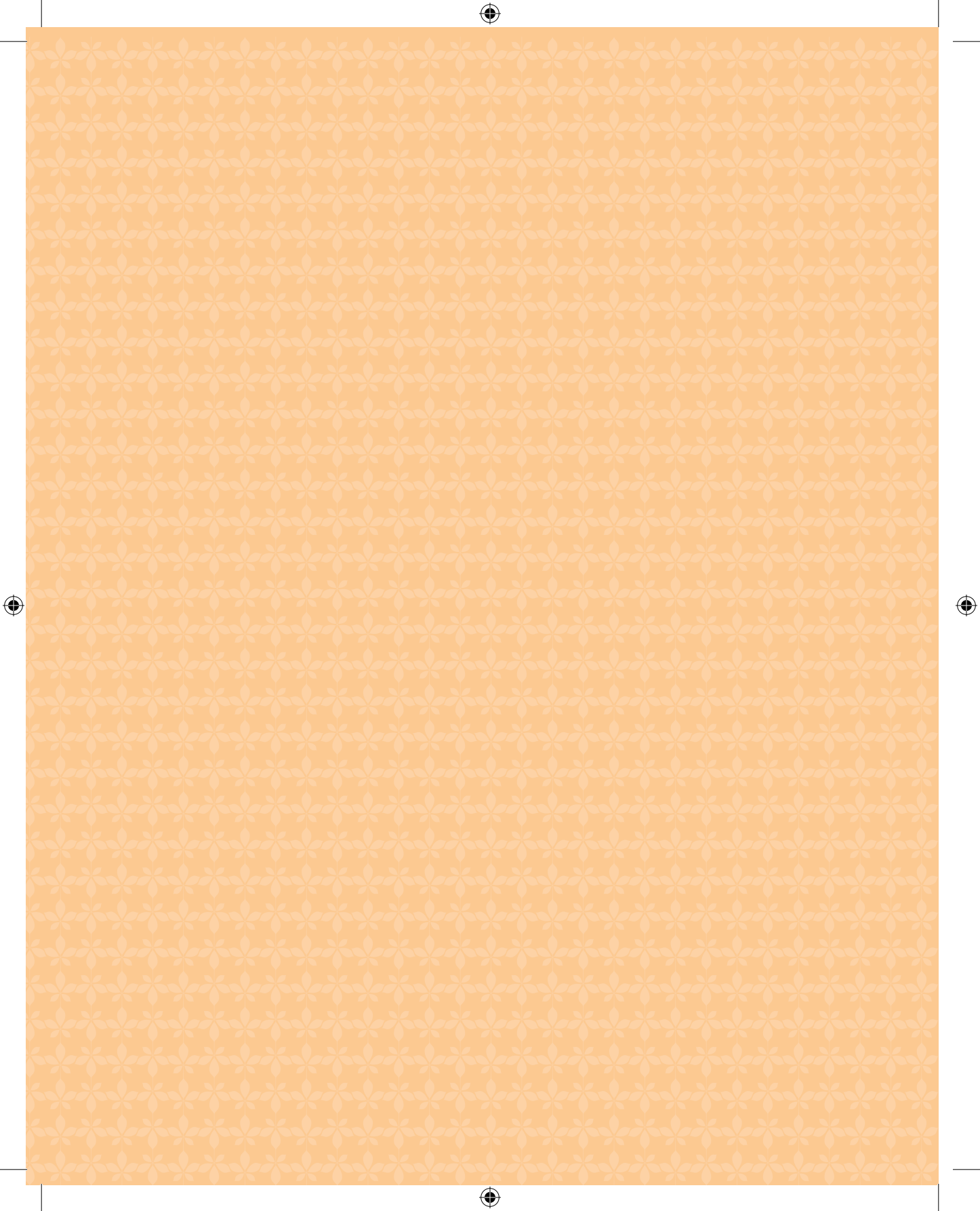
Q What is the recommended daily intake?

A The recommended daily intake of ginseng for an adult is 6-12 grams based on dry ginseng. Generally, this is about 1-2 ginseng roots. However, as ginseng hardly has any side effects, sometimes up to ten times the recommended intake is consumed. For children, reduce the daily adult intake based on the child's weight. In other words, if an adult weighing 60kg takes about one root a day, a child weighing 30kg will consume half a root, and so on. What about newborns? There is no medicine in the world that is recommended for newborns. This is because a newborn's body is not yet fully developed, which makes them highly susceptible to the smallest stimulation. This is the same for ginseng. Also, it is better to consume ginseng on an empty stomach as it is absorbed more efficiently, but those who feel heavy on the stomach would do better to take ginseng after a meal.

05

The Incredible Power of Ginseng

- Perfect Roots for Our Health
- Building the Body Defense System: Improved Immune System
- No More Fatigue & Stress: Relieving Fatigue
- Vascular Cleaner for Blood Circulation: Improved Blood Circulation
- Slowing Down Brain Aging: Improved Memory
- Preventing Body Waste: Anti-oxidation /Anti-aging
- Fighting against Cancer: For Cancer Prevention & Treatment
- Other Medicinal Effects



Perfect Roots for Our Health

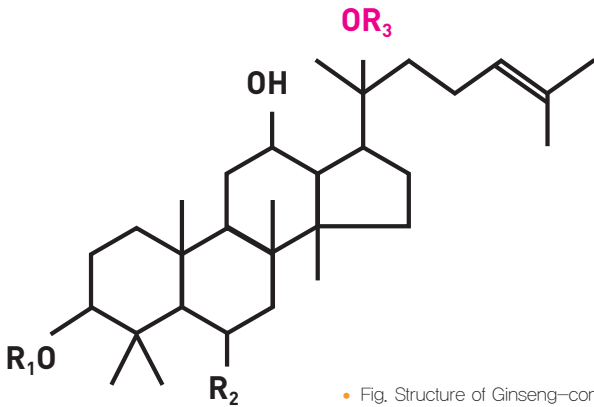
It is natural for products that have medicinal effects to have some toxicity as well. However, ginseng has almost no toxic properties. It is effective without side effects. Thus, ginseng was regarded as a cure—all from ancient times throughout the world and it is still studied in the world. Its medical elements have been scientifically proven.

Saponin, the main component of ginseng

When decocting ginseng, you may realize that produces a lot of bubbles. This is because it is rich in Saponin. Saponin means ‘bubble’ in Greek and is a molecule that contains both non-polar and polar parts that form bubbles. Saponin is one of the most important components of ginseng and most medicinal effects come from ‘Ginseng Saponin’. A compound generally called Saponin is widely spread in plants. However, Ginseng Saponin in a distinct Dammarane-structure is found in Panax plants.

Ginseng Saponin is also called ‘Ginsenoside’. There are many types of Ginsenoside, but ginseng contains mostly Ginsenoside Rb1, Rb2, Rc, Rd, Re and Rg1. 2~5% of Saponin is found in dried ginseng and it is mostly in thin root parts. When ginseng is heated, Saponin changes and creates Rg3 which is a special component. Additionally, when Ginseng Saponin enters our body, it is transformed to ‘Compound K’ by intestinal bacteria.

(Figure: Ginsenoside Structure)



• Fig. Structure of Ginseng-contained Saponin

		R1	R2	R3
Ginsenoside	Rb1	gic-gic	H	gic-gic
	Rb2	gic-gic	H	gic-ara
	Rc	gic-gic	H	gic-ara
	Rd	gic-gic	H	gic
	Re	H	gic-rha	gic
	Rg1	H	gic	gic

Improved effectiveness when infused for a long time

In particular, ginseng contains polysaccharide that improves the immune system. It is known that polysaccharide has lots of neutral and acidic sugar and in addition, polyacetylene components like panaxynol are known to inhibit growth of cancer cells. It also contains phenolic and oil components and alkaloid although not in big quantities.

Ginseng components vary depending on their processing. When Saponin is heated for a long time, sugars in the 20th position of Dammarane break away from the structure, creating Ginsenoside Rg3, Rg5 and Rk1. They especially have strong medicinal effects. Furthermore, as ginseng is heated, it forms new amino sugar compounds. As the ginseng components change, it gets more effective properties such as anti-oxidation, anticancer, and improved blood circulation and memory. Therefore, it is far more helpful for health to infuse ginseng than to take raw ginseng. Red ginseng usually has more medicinal effects than white ginseng because red ginseng is heated during the production process.

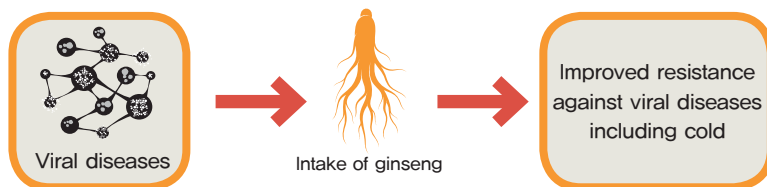
Building the Body Defense System: Improved Immune System

The Korea Food and Drug Administration(KFDA) officially recognizes 5 health functions of the red ginseng such as improved immune system, fatigue relief, improved blood circulation, improved memory and anti-oxidation properties. Let us first look into the immune system. When you and your friend are exposed to cold wind and you get sick whereas your friend is fine, or when you and your friend had the wrong kind of food, but you are the only one suffering from acute enteritis, it is highly likely that it is caused by the different level of immunity. The level of immunity is our body strength for self-defense. When toxic materials or pathogenic bacteria which may be harmful to our health enter our body, the immune system resists and eliminates them. So, when the level of immunity is low, we may get sick more frequently. Ginsenoside and polysaccharide promote the proliferation of immune cells and enhance cell activities. They increase the number of “soldiers” protecting us from external attacks and strengthen our defense power with modern weapons.

Fighting against cold, swine flu and AIDS

Cold is one of the common diseases we may encounter in our daily lives and ginseng increases resistance to the cold virus. According to clinical studies conducted by Dr. Kaneko and Dr. Nakanishi from Japan, 4.89% of the study subjects who did not take ginseng caught a cold whereas only 1.38% of those who took 3g of ginseng every day for 3 months caught a cold among the 12,295 people who participated in the study. Taking ginseng reduced the frequency of cold occurrence to 70%. It is believed that ginseng has strengthened our immune system and improved resistance to the cold virus.⁷⁰ Meanwhile, Dr. Kaneko also studied employees working in a geriatric hospital. Only 28.6% of the employees who actually took ginseng for 2 months reported cold symptoms, while 73.3% of the employees who took a placebo reported cold symptoms. Ginseng reduced the frequency of reported cold symptoms to 60%.⁷¹ It is traditionally said that ginseng prevents you from getting a cold, and this has been proven true.

Ginseng also increases resistance to other viruses like SARS and swine flu. In 2009, influenza A virus subtype stroke fear into the world. The Chungang University research team led by Professor Kim Hong-jin studied the ginseng effects on H1N1 virus and found that only 10% of





animals infected with swine flu survived. However, 66% of animals that took ginseng survived. Furthermore, ginseng prevented the weight loss caused by virus infection.⁷²

Ginseng inhibits the immunity level of AIDS(Acquired Immune Deficiency Syndrome) patients from declining. AIDS is a terrible disease that lowers the immunity level. Professor Cho Yeong-geol of ASAN Medical Center studied the ginseng effects with AIDS patients for over 20 years. The study result was impressive. When AIDS medicine was administered for years, its medicinal effects gradually declined. However, when ginseng was used together with the medicine, it prevented the effects from declining and improved AIDS treatment.⁷³ From ancient times, ginseng was used in nutritional tonics that could prevent minor illnesses including cold. Ginseng with outstanding medicinal effects acts as our guardian angel and protects us from various diseases.

No More Fatigue & Stress: Relieving Fatigue

We wish to live without fatigue or stress. However, material affluence these days may have caused mental and physical fatigue and stress. As our society gets more complicated, we cannot live without tiredness or stress. When we are tired or stressed out, there may be symptoms like headache, dizziness, constipation, cold sweat, anorexia, chill, gastrointestinal disorder and anxiety. We feel tired when our energy is exhausted and toxic materials are accumulated in organs. There are many scientific reports showing that ginseng relieves fatigue and stress.

Recovering from fatigue and gaining vitality

Ginseng controls energy-forming hormones in the body and improves blood circulation to speed up metabolism. It also efficiently eliminates body waste and helps relieving mental and physical fatigue. According to animal tests, ginseng prevents sports skills from declining significantly



because of stress. Animals administered with ginseng could swim and walk far longer than those that did not take ginseng.⁷⁴

Nurses in geriatric hospitals are mentally and physically stressed when they work overtime at night. Dr. Kaneko from Japan tested whether ginseng can relieve fatigue with those nurses. It was found that when nurses took ginseng and worked overtime, fatigue degree dropped from 112 to 82, demonstrating a 27% reduction.⁷⁵

It was also revealed that sports skills improved when athletes took ginseng. A study was conducted with triathlon athletes and it was found that ginseng prevented fatigue and decreasing sports skills in the second-half of the triathlon season.⁷⁶ Another study with PE teachers reported that ginseng improved the use of oxygen in muscles and increased sports skills.⁷⁷ Owing to these effects, many people are already taking ginseng and even athletes use ginseng as it is not categorized as a banned drug.

Ginseng is also helpful in relieving mental stress.⁷⁸ 《Shinnongbonchogyong》 published about 1,500 years ago records that “ginseng makes you relieved.”

Vascular Cleaner for Blood Circulation: Improved Blood Circulation

When you get old, you may frequently feel sleepy and grow dim. Your vision may get blurry and there may be vision loss. Your shoulder may get cold and your arms feel stiff. Your senses may get dull as well. You will visit the doctor and get your brain scanned. You may be diagnosed that you are likely to suffer a stroke. Suddenly, you are worried that you may actually fall with a stroke. Stroke is a cerebrovascular disease which is the number 2 cause of death in Korea. Depending on the severity of the stroke, body parts may be paralyzed or it may cause paresthesia and speech and language disorders. When it gets severe, you may not fully recover. It is common to see people receiving rehabilitation treatment after their body parts are paralyzed by a stroke.

Stroke occurs when the blood vessels that supply blood into the brain are blocked or ruptured, damaging the brain cells. Why does it happen? It is because you have poor blood circulation. When blood vessels are no longer flexible and get narrower as wastes are accumulated, nutrients cannot be properly supplied via blood. In addition, body waste cannot

be properly eliminated owing to poor blood circulation. When blood does not flow well in blood vessels of the brain, the brain cells that receive nutrients from blood will not be activated, resulting in strokes.

For elastic blood vessels and better blood circulation

Ginseng acts as a guard protecting vascular health. When a vasodepressor material 'NO' is emitted from endothelial cells inside blood vessels, the vessels get wider and blood flow increases. Ginseng encourages 'NO' releases, widening the narrow blood vessels. It also improves flexibility to maintain elastic blood vessels.⁷⁹ Ginseng lowers cholesterol and neutral lipid in blood and contributes to cleaner blood by improving lipid metabolism. It also prevents oxidation of endothelial cells in blood vessels, keeping us young and healthy. Thus, when we take ginseng, it improves our blood circulation and supplies a sufficient amount of oxygen and nutrients for our body. At the same time, it effectively removes wastes from our body, reducing the risk of artery hardening. It is like cleaning old, corroded water pipes and purifying dirty water in the pipes.

Inhibiting blood clots

On the contrary, blood clots are formed and blood viscosity increases owing to platelet aggregation. As blood lumps are formed and blood is not properly supplied to capillary vessels. Moreover, when the aggregated

platelets block the narrow blood vessels, it will get much more difficult to supply nutrients and transport wastes. When this happens in your brain, there will be damage to the brain cells and in severe cases blood clots will block the vessels causing cerebral hemorrhage. Then, severe aftereffects will appear. Ginseng inhibits platelet aggregation in our body and prevents or treats blood circulatory diseases.⁸⁰ In particular, the red ginseng effects are officially recognized by KFDA.

Ginseng for patients with hypertension

A medical team in Nitsei Hospital led by Dr. Yamamoto studied the effects of ginseng on blood pressure. Ginseng was given to the study subjects before meals for 10 months and examined changes to their blood pressure. 95% of the normal subjects showed no changes. However, 51% of the patients with hypertension reported a lower blood pressure, 63% of the patients with hypotension reported no changes and 51% reported a raised blood pressure. In another study, it was revealed that taking ginseng lowers both the systolic and diastolic blood pressure levels.⁸¹

There are many studies reporting the effects of ginseng on blood circulatory systems and overall they pointed out that ginseng reduces blood pressure. Ginseng does not greatly affect blood pressure, but it dilutes blood, protects vascular health and inhibits development of blood clots. It is useful for patients with hypertension as it improves blood circulation.⁸²

There are a few reports that ginseng increases blood pressure. It is uncommon, yet very sensitive people may have symptoms like flushing or



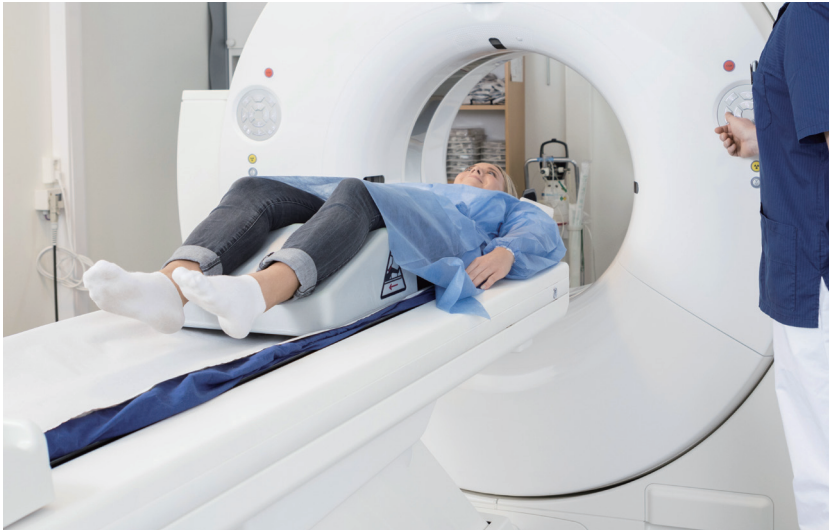
itchiness. In such cases, blood pressure may increase so you should take less or discontinue its use. The symptoms may be relieved when a small amount of ginseng is taken first and it can be increased gradually.

Slowing Down Brain Aging: Improved Memory

When you get old, there are times when you have poor memory. You may not remember things that you have once heard or recall the names of people you know. The brain cells also get old resulting in poor memory or concentration. It is not possible to completely prevent aging of the brain cells, but you can slow this down. Ginseng plays this role.

Improving memory and learning ability

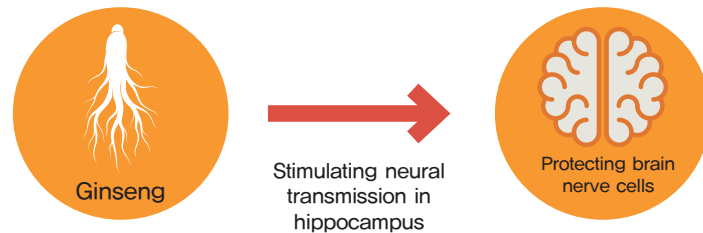
Ginseng improves blood circulation and supplies oxygen or various nutrients for brain activities. The brain cells are naturally activated, improving memory or the learning ability. The Ewha Womans University research team led by Professor Oh Se-gwan tested ginseng with aging animals. Animals administered with ginseng were faster in going through the maze and better remembered past experiences. The study results showed that ginseng prevented memory loss and degradation of learning



ability. It is believed that ginseng inhibits various aging—related factors, in other words, it is anti-inflammatory and it activates the brain cells. Numerous studies were published stating that ginseng improves memory and learning ability. Ginseng stimulates the secretion of a neurotransmitter called acetylcholine in the brain hippocampus and protects the brain cells to improve memory and learning ability. It was found in clinical studies that a group of people taking ginseng showed better memory and learning ability and the longer they took ginseng, the greater the memory improvement.⁸³ When ginseng is taken for a long time, it raises attentiveness and quickens responses to stimulation. It alleviates senile, neurological and psychiatric symptoms and prevents damages to cognitive ability caused by aging.

Ginsenoside inhibits dementia-inducing substances

Dementia is one of the most terrible diseases in the aging society. It damages brain functions so patients with dementia will not be able to recognize their family members and causes pain to patients and their family. It is indeed terrifying and sad. It is known that beta amyloid peptide deposits are formed in the brain and destroy the brain cells, yet treatment drugs are not developed yet. However, it was found that Ginsenoside inhibits beta amyloid peptide deposits from being formed in the brain and protects the brain cells. The Seoul University research team led by Professor Kim Mahn—ho reported in a clinical study that patients with dementia who took ginseng showed improvements in cognitive ability and quality of life.⁸⁴ If you are worried about memory failure and suffering dementia, you should regularly take ginseng and if related symptoms are already present, you should take ginseng to alleviate them.



Preventing Body Waste: Anti-oxidation / Anti-aging

Our body produces an energy source called 'ATP(Adenosine Triphosphate)' for normal activities. In the process, 'Reactive Oxygen Species' are inevitably produced and they are so reactive that they indiscriminately attack all parts of our body. They are like violent villains in the body. Reactive oxygen species are caused by body waste and continuously flow into our body owing to environmental pollution. When reactive oxygen species that cause aging and almost all diseases damage DNA in body, cells will not function well and it may cause cancer as well. Ginseng protects our body from these reactive oxygen species through anti-oxidation.

Slowing down the warning signs of aging

Ginseng suppresses aging by preventing the peroxidative reaction of lipid. When ginseng is taken for a long time, it reduces cholesterol, glucose and lipid peroxide in blood and increases antioxidant enzyme activities.

To put it simply, it is like cleaning the whole body. Ginseng removes reactive oxygen species that are accumulated in our body.⁸⁵

When peroxide materials in our body increase and damages to cells in body are accumulated, aging will proceed. However, when ginseng is taken, symptoms caused by aging like degraded attentiveness, perception ability and response to stimulation may be alleviated. It improves the senile cognitive ability and memory disorders. Additionally, it prevents skin aging.⁸⁶

According to the test with white mice, the ones administered with ginseng lived longer than those without ginseng. Also, those with ginseng were far stronger and had shiny hair. Even in ancient medical books, it stated that when ginseng is taken for a long time, “you will feel lighter and live longer.” If you wish to clean your body, it would be better to have ginseng.

Fighting against Cancer: For Cancer Prevention & Treatment

Cancer is one of the incurable diseases that are not easy to overcome with modern medical science. Normal cells in body will divide, grow and die at all times, but sometimes mutant cells are formed and our immune system will remove them. However, mutant cells that survived will continue to divide and grow, and develop into cancer. Ginseng protects our health as it directly and indirectly affects cancer prevention and treatment.

Supplement for protection and treatment of cancer

Cancer starts when carcinogens in our body attack normal cells and develop mutants. Carcinogens may enter our body from polluted environments or formed during the metabolism activities. The mutant cells become the seeds of cancer. When they put down roots and sprout, they develop into cancer, which may take decades. Unfortunately, the

modern science has not yet found ways to diagnose cancer when it is still undetected. It can only be detected when it is grown and on ground. The cancer cells on ground continue uncontrolled proliferation and develop into a vast tumor. It may spread to other body parts as well. Ginseng is helpful in preventing and treating cancer as it affects all stages of cancer development.

First, it inhibits carcinogens from being formed, preventing the first stage of cancer development.

Second, it increases the immunity level and fosters the ability to remove the mutant cells in our body.

Third, it blocks mutant cell proliferation as cells sprout in our body.

Fourth, it induces apoptosis of developed cancer cells and directly assists cancer treatment.

Fifth, it inhibits the cancer cells from spreading to other body parts.

Sixth, it prevents recurrence of cancer after its treatment.

Seventh, it works with anti-cancer drugs for better cancer treatment.

Eighth, it reduces the adverse reactions of anti-cancer drugs and improves the quality of patient's life.

As listed above, ginseng is useful in preventing and treating cancer at all stages. This does not mean that ginseng can cure all cancer types. It would be better to use ginseng as a supplement as cancer patients receive modern scientific treatment.

Cancer and ginseng in scientific studies

There are many scientific reports claiming that ginseng inhibits cancer. The Korea Cancer Center Hospital research team led by Dr. Yoon Taek-gu had studied the correlations exists between ginseng and cancer with 4,634 people at age 40 living in Ganghwado from 1987 to 1992. It was found that the number of cancer patients per population(1,000 people) in a year was 9.6 people when ginseng was not taken, whereas it was 4.7 people when ginseng was taken. In addition, it was revealed that as you frequently take ginseng, it lowers the risk of cancer. The results implied that ginseng actually prevents cancer and it reduces the number of cancer cases(51%).⁸⁷

The Seoul National University pharmacy research team led by Professor Seo Yeong-joon conducted animal tests to find out whether ginseng



prevents skin cancer. Researchers administered carcinogens to the animals and cancer developed in all animals in 16 weeks. However, when ginseng was administered together with the carcinogens, it completely inhibited cancer development. It is assumed that anti-inflammation and anti-oxidation effects of ginseng prevent cancer development.⁸⁸

The Gil Medical Center research team led by Professor Lee Seong-jae studied how ginseng affected the cancer patients' lives. The double-blind test (even the test investigators do not know which drug is administered to the test subjects) with cancer patients was conducted and it was found that patients who had taken ginseng for 12 weeks shows improved mental and physical functions compared to non-administered patients and in overall, their lives greatly improved.⁸⁹

Dr. Shu's research team in Taiwan studied the correlations between ginseng and patients' survival and quality of life with patients suffering from breast cancer. Among 1,455 patients, 27% had experienced ginseng before cancer development, and it was found that patients who had taken ginseng showed the lowered risk of death caused by breast cancer to about 30% than those who had not. Also, it was reported that the quality of life of patients that took ginseng improved and it got better as they took more ginseng.⁹⁰

Other Medicinal Effects

Alleviating the climacteric anxiety: Improved climacteric symptoms

At 45~55 women experience the third sexual characteristics called climacterium. Ovaries do not function properly and estrogen secretion is reduced. It reaches menopause and aging is accelerated in all body parts. Your face may flush, your heart starts to pound and you may have headaches or feel dizzy. At the same time, you may have symptoms like anxiety, depression and memory loss. Nobody can avoid this period when physical and mental stress reach the climax. However, ginseng may be helpful in going through menopause with terrible symptoms.

Ginseng expands the peripheral blood vessel and alleviates stress on red blood cells, so that blood can be properly circulated in our body including the ovaries and nutrients can be sufficiently supplied. The female hormone, estrogen will be secreted, alleviating the climacteric symptoms.⁹¹ In particular, ginseng accelerates the overall body functions,



slows down aging and reduces memory loss.⁹² In the past, climacteric symptoms were common in the mid-aged women. They now show in young females and even in males although the symptoms may not be severe. Climacterium is considered as the period of crisis. To overcome this, it is very helpful to regularly take ginseng.

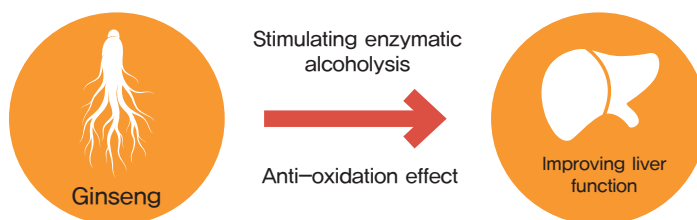
Strengthening sexual functions: tonic effects

Sexual functions may naturally decrease as you get older or due to mental and physical stress. What effects does ginseng have on sexual functions? A test was conducted with white male mice and it was found that ginseng can restore sperm production of mice that decreased because of aging. In addition, ginseng alleviates sexual disorders caused by chronic fatigue and

stress, and it is effective in treating impotence, improving the degree of erection, sexual desire and satisfaction. It was also reported that ginseng was effective in strengthening sexual functions of the post-climacteric women and even men.⁹³ Sexual dysfunction is mostly caused by various environmental pollutants such as smoke, agricultural pesticides and chemical products. Ginseng protects genital organs from toxins developed by endocrine disruptors and improves the mobility of sperms.⁹⁴

If you love drinking, take ginseng: Improved liver function

There is an advertising copy, “If my body is worth 1000 won, my liver is worth 900 won” which implies that the roles of liver are important. Liver changes the nutrients absorbed into our body from meals to necessary nutritive elements and store them, and then they are supplied to each organ. In addition, it detoxifies various substances and helps to metabolize and store various nutrients like vitamins and minerals. However, if you have been excessively drinking or get stressed, the risk of liver damage will increase. Also, it is not easy to recover from liver disorders. It is ginseng that protects our liver. Toxic substances in



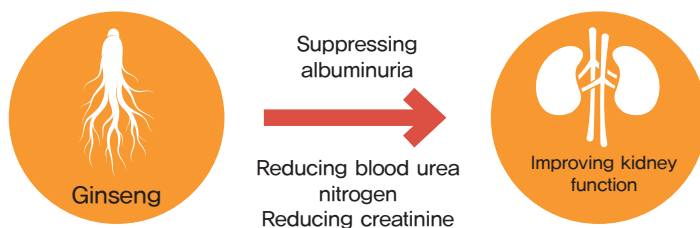
liver inhibit protein synthesis of liver cells, but ginseng prevents this and promotes detoxification to protect the liver. In particular, it protects the liver cells from fungal toxins like aflatoxin or heavy metals like cadmium and it was revealed that this is related to the anti-oxidation effect of ginseng.

Moreover, ginseng is known to prevent acute or chronic hepatitis.⁹⁵ In fact, alcohol is discordant with the liver health. The alcohol beverage we drink is ethylalcohol(C_2H_5OH) and it is metabolized into acetaldehyde(CH_3CHO) by the liver enzymes and then into acetic acid(CH_3COOH) by other enzymes. Acetaldehyde produced at the mid-stage is highly toxic and causes a headache, nausea and discomfort. Ginseng activates enzymes for alcoholysis and quickly removes the toxic acetaldehyde to protect the liver from alcohol toxicity. Also, it inhibits fat from being formed in the liver.⁹⁶

Improving kidney functions: kidney protection

Kidneys have 3 functions in our body. Firstly, they filter the body wastes and urinates them(urination). Secondly, they regulate and maintain the level of total body fluid, electrolyte and pH(maintenance of homeostasis). Thirdly, they produce and activate important hormones for blood pressure, anemia, and calcium and phosphorous metabolism(endocrine secretion).

However, it is difficult to restore the kidney functions once they are damaged. Kidney dialysis may be needed for the entire life or kidney transplantation may be required. Therefore, it is important to protect them before they are damaged and ginseng is effective in improving



the kidney functions. According to the chronic heart failure induced on animal tests, toxicity index substances like BUN(Blood Urea Nitrogen) and creatine levels decreased significantly, inhibiting albuminuria. Cisplatin, a platinum compound widely used as an anti-cancer drug is known to accumulate lots of toxins in kidneys. Ginseng reduces the level of kidney toxicity, lowers BUN and creatine levels, and alleviates the kidneys from swelling caused by toxicity.⁹⁷

Lowering blood sugar: Improved diabetic symptoms

Diabetes develops when glucose(sugar) concentration in blood increases because of insufficient insulin secretion or abnormal insulin functions. There are two types of diabetes and type I diabetes mainly occurs in children. In contrast, type II diabetes is common in adults and it occurs when insulin cannot function properly due to insulin resistance. Diabetes can be very dangerous not just because of the high blood sugar level, but because of various complications. According to clinical studies on patients with type II diabetes, ginseng lowered the blood sugar level and alleviated several complications accompanying diabetes. Symptoms



like fatigue, numbness, thirst and polyuria that troubled patients were alleviated as well.⁹⁸ Traditional oriental medicine has recognized these ginseng effects and used ginseng for treating diabetes.

How do people around the world take ginseng?





“ Raw ginseng is the focus in many Eastern countries, but it may slightly vary by country. All types of ginseng, including ginseng roots, products and drinks are sold in Korea for people of different ages and genders. Raw ginseng is consumed mostly in China, while ginseng pills, tablets and drinks are sold in Japan. Likewise, Chinese people living in Southeastern countries favor raw ginseng. In Western countries, ginseng tablets and capsules are more common. America may be similar to other Western countries, but in the Western states where lots of Asians like Koreans and overseas Chinese reside consume mostly raw ginseng and tea. On the other hand, soft ginseng types in red ginseng cafes are popular in the Eastern states. ”

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