

# The world ginseng market and the ginseng (Korea)

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Ginseng is being distributed in 35 countries around the world and there are differences by each country in the distribution volume and amount. However, since there is no accurate statistics on production and distribution amount by each country, it is very difficult to predict the world ginseng market. Ginseng trading companies and governments are in desperate need of comprehensive data that shows the world ginseng market status for sales and marketing. For that reason, this study will look into the approximate size of the world ginseng market based on recent ginseng distribution amount by each country and production by major ginseng producing nations. In addition, the review sets an opportunity to check the status of ginseng (Korea) in the world and presents future direction by examining recent history of ginseng development in Korea, which is one of the world's largest ginseng distributors. Since ginseng is cultivated in limited areas due to its growth characteristics, ginseng distributing countries can be divided based on whether they grow it domestically or not. In general, four countries including South Korea, China, Canada, and the US are the biggest producers and their total production of fresh ginseng is approximately 79,769 tons which is more than 99% of 80,080 tons, the total ginseng production around the world. Ginseng is distributed to different countries in various forms such as fresh ginseng, dried ginseng, boiled and dried ginseng (Taekumsam), red ginseng and the related products, etc. and is consumed as food, dietary supplements, functional food, medical supplies, etc. Also, the world ginseng market including ginseng root and the processed products, is estimated to be worth \$2,084 million. In particular, the size of the Korean market is \$1,140 million which makes Korea the largest distributor in the world. Since the interests in alternative medicine and healthy food is increasing globally, the consumer market of ginseng with many features and the processed products are expected to expand continuously.

**Keywords:** *Panax ginseng*, Ginseng distribution, Ginseng market, Ginseng production, Red ginseng

## INTRODUCTION

The history of the use of ginseng began 4,500 years ago, and its first record was written 2,000 years ago. Ginseng has been one of the most important trade goods for health care and treatment of diseases in Asia including Korea and China, and is currently distributed to 35 countries around the world. Depending on the characteristics of each nation's consumers, ginseng can be used for agricultural products, food, dietary supplements, health supplements, and medicines, etc. After international

quality standards of ginseng in Asia as standards had been established in 2009 Codex Alimentarius Commission, the worldwide specification of ginseng gradually replaced each nation's previous specification of ginseng. However, because there is no comprehensive statistical data about the ginseng production and the market size in the world, companies interested in ginseng business and marketing have difficulty entering ginseng market and expanding business.

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**Table 1.** Estimated worldwide ginseng production (based on fresh ginseng)

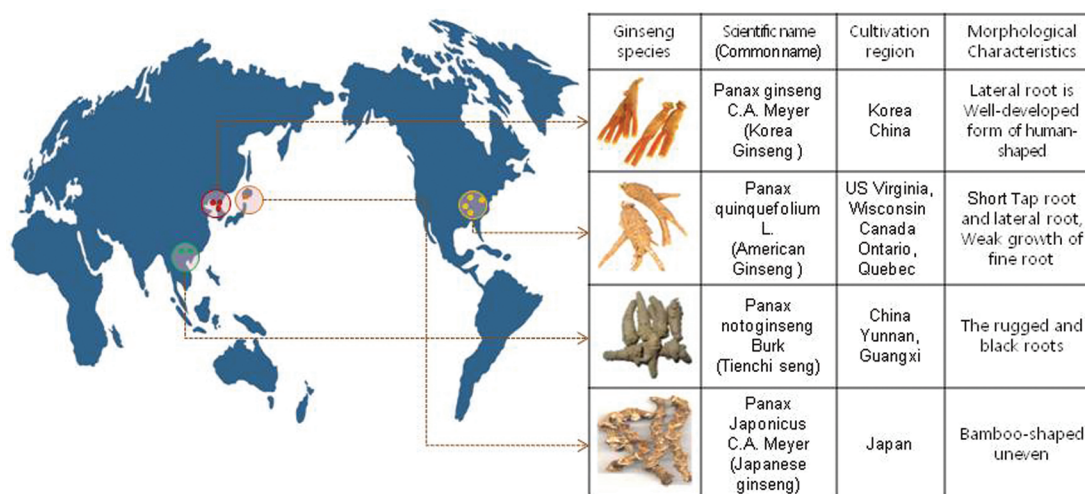
	China <sup>1)</sup>	South Korea <sup>2)</sup>	Canada <sup>3)</sup>	United States <sup>3)</sup>	Others <sup>4)</sup>	Total
Ginseng Production (ton)	44,749	27,480	6,486	1,054	311	80,080
Production Ratio (%)	55.9	34.3	8.1	1.3	0.4	100

<sup>1)</sup> As of 2008 (Recent research data by China Local Co., Ltd.)

<sup>2)</sup> 2009 Ginseng statistics source book by Ministry for Food, Agriculture, Forestry and Fisheries [1]

<sup>3)</sup> Estimate based on local ginseng association visit in 2007.

<sup>4)</sup> Amount converted by rough estimate by multiplying 0.39%, the ratio accounting for in \$1,122,836,000 ginseng production amount of 4 countries by 0.0039, 79,769 ton, ginseng production of 4 countries based on the export amount, \$4,405,000 of ginseng producing countries (Japan, North Korea, Denmark, France, Germany, Italy, Spain, Switzerland, Netherlands) except for 4 countries.



**Fig. 1.** Ginseng cultivation distribution and species and characteristics of ginseng.

In this situation, we would like to introduce ginseng market trend in South Korea which has the world's largest distribution and estimate the world ginseng market size based on the best guess of ginseng production in countries such as China, Korea, Canada, and the US. We are afraid to say that there might be some discrepancies between the data from the report and the real data. But this report can be useful in overviewing the present and the future of ginseng industry schematically.

### SIZE OF GINSENG PRODUCTION IN THE WORLD

Due to its growth characteristics, ginseng needs specific climate and soil conditions and is cultivated in countries such as South Korea, China, US, Canada, etc. Since there are no accurate official statistics on the annual production by each country, and the accurate statistics is hardly available, site-visit-consultation and statistical data from some countries are probably the only references at the moment. Though not clear, it is still thought to be tremendously helpful having international perspectives and senses on ginseng. The following Table 1 shows the

estimated worldwide ginseng production. Looking at the world ginseng production, it can be roughly estimated as shown below. China has the most production, 44,749 tons, and it is estimated in the order of South Korea, 27,480 tons, ranking the 2nd, Canada 6,486 tons, the 3rd and the US 1,054 tons, etc. The total production by these four countries is 79,769 tons, which is approximately 99% of the world ginseng production (80,080 tons). Therefore, it is possible to say that they are responsible for the majority of the world ginseng production [1-3].

Every ginseng from of South Korea is *Panax ginseng* Meyer 1st class, and three types are produces by China, *P. ginseng* Meyer, *P. quinquefolius* L. and *P. notoginseng* Burkill. In Canada and the US, mostly *P. quinquefolius* L. is produced. Based on production by species, *P. ginseng* Meyer is produced the most, and *P. quinquefolius* L. and *P. notoginseng* Burkill in the decreasing order. Particularly, it can be seen that *P. ginseng* Meyer shows the absolute dominance in the entire production (Fig. 1). Regarding ginseng production, while cultivation is done around 4 to 6 years roots in South Korea and China, 3 to 4 years root is usually featured and some of 6 years root are cultivated in Canada and the US.

**Table 2.** Estimated worldwide ginseng distribution amount (based on ginseng root )

Classification	South Korea	China	Canada	United States	Others	Total
Ginseng Production (ton)	27,480	44,749	6,486	1,054	311	80,080
Distribution Amount (million \$)	649	352	97	25	7	1,130
Distribution Ratio (%)	57.4	31.1	8.6	2.2	0.7	100.0

**Table 3.** Estimated worldwide ginseng distribution amount (based on ginseng root + processed goods)

Classification	South Korea	China	Canada	United States	Others	Total
Ginseng Production (ton)	27,480	44,749	6,486	1,054	311	80,080
Production Ratio (%)	34.3	55.9	8.1	1.3	0.4	100
Distribution Amount (million \$, Root and Processed Products)	1,140	619	269	44	13	2,085
Distribution Ratio (%)	54.7	29.7	12.9	2.1	0.6	100

## SIZE OF THE WORLD GINSENG DISTRIBUTION

Ginseng is distributed in about 35 countries around the world as shown below. Among them, 19 countries including South Korea, China, etc. are both importers and exporters. However, North Korea is only exporter, and the last 15 countries are only importers. The imported size data of Syrian Arab Republic is not available.

Looking at the characteristics of these three types of countries, ginseng distribution is rather active in those countries which import and export at the same time and especially, the largest 4 producers, South Korea, China, Canada, US belong to them. On the other hand, the assumption is that North Korea with small production only export and that the countries without domestic production only import. In terms of ginseng root, Hong Kong is the biggest importer (\$107 million in 2009). However, considering Hong Kong is the country where ginseng is not cultivated and not vastly consumed, it is fair to say that most of the ginseng is processed and then exported to other countries. On the other hand, Canada is the biggest exporter in the world (\$66 million in 2009). They have sizeable export volumes in comparison to their production, and it seems as though most of the production is exported and only a little is consumed domestically. China is the biggest producer in the world. They also export and consume domestically; in fact they are the second largest in terms of the distribution amount (Tables 2-4).

Then, where is the largest market in the world in terms of distribution amount? It is none other than South Korea. As of 2009, its annual production is 27,480 tons, the 2nd largest in the world, and it is the world's largest distribution market. Its domestic distribution size is approximately \$649 million in terms of the amount based

on ginseng root (Table 2) and approximately, \$1,140 million if including processed products (Table 3). South Korea exports as well (2009, \$38 million), but its domestic consumption is larger than the amount exported. In particular, the reason why the distribution amount is large in South Korea is that 100% ginseng root and a variety of processed products are thriving. In addition, ginseng products are divided according to distribution characteristics, and a wide variety of distribution channels such as department stores, road shops, large retailers, supermarkets, duty-free shops, drugstores, traditional markets, home shopping, internet sales, door-to-door sales, etc. are open. Also, if there is South Korea's own unique distribution market, it is none other than the fresh ginseng distribution market. Fresh ginseng out in the field is distributed through the traditional markets etc. and is used as ingredient in various forms at home and restaurants. Ginseng in South Korea is mostly (estimated more than 90%) distributed as food.

In terms of ginseng root (fresh ginseng, processed white ginseng, red ginseng, and Taekuksam), production amount and distribution size of ginseng being distributed around the world are estimated to be approximately \$1,130 million and if its processed goods (powder, capsule, extract, drink, etc.) are included, it can be estimated to be approximately \$ 2,085 million (Table 3).

## WORLDWIDE GINSENG CONSUMPTION PATTERN

Ginseng is being consumed in various forms depending on the nature of consumer culture in each country.

Asian countries such as South Korea and China have a long history of ginseng consumption that goes back as far as 1,000 years. Looking at the consumption pat-

**Table 4.** Estimated worldwide ginseng root distribution amount (As of 2009, \$ 1000)

No.	Target Market	Production	Import	Export	Distribution Amount	Note <sup>1)</sup>
1	South Korea	648,746	1,912	37,618	613,040	im/ex
2	China	352,116	6,164	56,065	302,215	im/ex
3	Canada	97,131	11,993	66,418	42,706	im/ex
4	United States	24,843	33,917	37,055	21,705	im/ex
5	Japan		11,671	1,324		im/ex
6	Hong Kong		106,962	6,975		im/ex
7	India		48	-		im
8	Indonesia		1,422	76		im/ex
9	Macau		676	103		im/ex
10	Malaysia		4,173	-		im
11	North Korea		-	1,428		ex
12	Singapore		7,294	2,209		im/ex
13	Taiwan		20,115	6,481		im/ex
14	Austria		171	-		im
15	Belgium		235	-		im
16	Denmark		2	115		im/ex
17	Finland		79	-		im
18	France		1,053	166		im/ex
19	Germany		2,007	737		im/ex
20	Italy	7,367	3,586	83	150,537	im/ex
21	Poland		199	-		im
22	Russia		115	-		im
23	Spain		603	27		im/ex
24	Sweden		31	-		im
25	Switzerland		815	195		im/ex
26	Netherlands		362	243		im/ex
27	United Kingdom		944	-		im
28	Ukraine		106	-		im
29	Colombia		29	-		im
30	Guatemala		223	-		im
31	Venezuela		71	-		im
32	Australia		218	-		im
33	Syrian Arab Republic		-	87		ex
34	Saudi Arabia		163	-		im
35	South Africa		46	-		im
	Total	1,130,203	217,405	217,405	1,130,203	

<sup>1)</sup> im (import), ex (export)

tern by each country, while ginseng root product is the mainstream in China and Taiwan, it is consumed in the form of solid type such as capsule, tablet, etc. and tonic nutrition beverage in addition to ginseng root product in Canada, US, Japan, etc.

On the other hand, in the case of South Korea, the

world's strongest ginseng distribution market, a wide variety of products are being consumed to the extent that it is no exaggeration to say any kind of ginseng product can be found in South Korea.

In South Korea, ginseng root is consumed and distributed in 4 types. The first is fresh ginseng right out of

**Table 5.** Production amount by classification of each ginseng type in South Korea

	Red ginseng product	Fresh ginseng	White ginseng product	Taekuksam	Total
Distribution amount (million \$, root and processed products)	671	292	157	20	1,140
Ratio (%)	58.8	25.6	13.8	1.8	100

the field, the second is processed white ginseng which is dried ginseng, the third is Taekuksam which is the fresh ginseng blanched in the water dried, and the fourth is red ginseng which is steamed fresh ginseng with vapor and dry. Among them, while the full quantity of fresh ginseng and Taekuksam are consumed in ginseng root type and approximately 95% of white ginseng is consumed as ginseng root and only approximately 5% is distributed as processed products, red ginseng is more consumed in various processed forms (67%) than in ginseng root (33%) form. In particular, the representative ginseng of South Korea is red ginseng and its related products are widely consumed as health supplements, general food, medicine and the majority (estimating more than 90%) is consumed as health foods (agricultural products, health supplements, and general food) (Table 5).

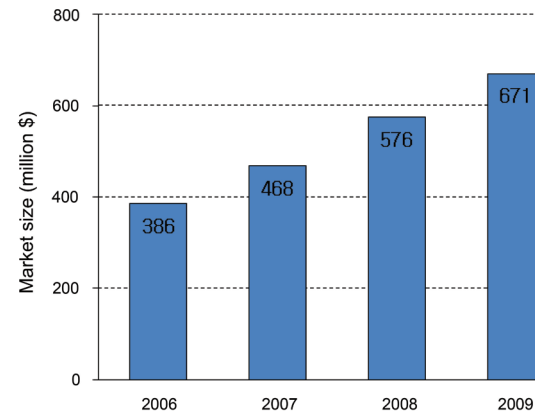
These red ginseng health supplements are consumed in the forms of ginseng root, powder, tablet, capsule, concentrated extracts, soft capsule, pill, granule, beverage, candy, etc. The production amount by classification of each ginseng type in South Korea as of 2009 is estimated as follows.

In South Korea, ginseng is widely being consumed by children as well as the elderly. Recently, ginseng consuming classes are gradually expanding to the children and the youth. Although most ginseng (Korea), they have become the most popular health foods for all of Korean. In South Korea, ginseng consumption stays steady throughout a year and especially, the sales reaches the highest marks around New Year's Day, Parents' Day, Chuseok holiday seasons, etc.

Red ginseng, the most attractive product of the South Korea ginseng markets, takes approximately 59% in

the entire South Korean market, and the consumption is continuously rising every year and growing steadily each year in every ginseng type as well as health foods (Fig. 2).

The key reasons why specifically ginseng (Korea) is loved by customers in South Korea, are shown above. The meaning can be reaffirmed from the fact that ginseng (Korea) was originated from "Panacea (cure-all)." The efficacy research by the modern scientific approach started from 1950, and research is still being conducted by many eminent scholars to explore the mysterious ef-

**Fig. 2.** Recent market trends of red ginseng in South Korea.

ficacy. In South Korea, there are about 1,000 scholars who study ginseng, and more than a hundred of research papers are published every year.

Various effects of ginseng have been reported so far; anti-stress effect [4], improvement on cognitive function [5], prevention on memory impairment [6], anti-wrinkle effect [7], treatment of androgenic alopecia [8], prevention of influenza virus [9], gastroprotective effect [10], anti-diabetic effect [11], hepatoprotective effect [12], renoprotective effect [13], efficacy in erectile dysfunction [14], effect on blood circulation [15], efficacy in inhibiting acquired immune deficiency syndrome virus (human immunodeficiency virus) growth [16], efficacy in improving female climacteric disorder [17], protection against 2,3,7,8-tetrachlorodibenzo-*p*-dioxin [18], anti-oxidant effect [19], cancer prevention [20], etc. including homeostatic maintenance [3,21] of human body [22]. Since ginseng is the most popular health food in Korea, the consumption will undoubtedly keep increasing.

## FUTURE OF THE WORLD GINSENG MARKET

Due to a growing well-being trend around the world, the health food market focusing on natural food, medicine, and other end products of chemical synthesis of health food is expanding greatly. As of 2009, the market size of the world health foods is estimated to be \$254,237 million. Since the value of ginseng is evaluated as the highest among natural health foods, if health products

with various functions using this ingredient are developed, they will be able to tremendously enhance the quality of life and become the world bestseller.

Until now, the ginseng market maintained the premium around Asia based on the traditional efficacy. However, if a variety of products and marketing appropriate for the international market and customers are developed along with scientific research on efficacy, the value could expand beyond Asia and to the world in the future.

According to the international spread of ginseng consumption, the marketing strategies such as new distribution development, brands, design, packaging, price, product differentiation, etc. should be accompanied along with continuous investment in research and development in ginseng cultivation, new material development, efficacy, new product development, etc.

## CONCLUSION

With a global expansion of the health food market, ginseng is still considered to have potential for market expansion. Since numerous people have been consuming it for more than 1,000 years and the effects are being revealed by experiences as well as modern scientific approach, if a variety of functional materials with ginseng or health foods are developed, it is expected to form the world's largest health food market. For continuous growth and development of the ginseng industry, it is important for "ginseng" brand to be recognized by the market and consumers, and an optimal marketing communication strategy implementation focusing on distribution thorough analysis on the target market is in need. We hope that ginseng, one of the treasures from nature, continues to promote health of mankind and improve the quality of life.

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