# Justification of eco-friendly organic ginseng products and the product R&D

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## **Abstract**

In order to cope with change of Korean and global consumption trend, it is forecast that GAP cultivated ginseng & its processed products, Organic cultivated ginseng & its processed products, Sanyangsam & its processed products as well as existing white ginseng (products), red ginseng (products), Taekuksam (products), black ginseng (products) will enter into market and customer demands will create new consumption. Eventually, it is considered that the time has come for considering and carrying out together for raw material cultivation and production, research and development of processed products and export and distribution of domestic and overseas market.

### Introduction

It is estimated that world market size of herb medicines is 200 USD billion and ginseng market size reaches 20 USD billion. Of 200 USD billion in market size of herb medicines, China accounts for roughly 10% of total as 20 USD billion and Korea has 0.6% of a world market share. In case of Korea, export of Ginseng and Red-ginseng products occupy the most of part. Export amount of Korea ginseng in 1995 was 165 USD million and decreased to 55 USD million in 2002, which is getting restored to 124 USD million in 2010. Production of Korean ginseng cultivation is 27,000 TON (in 2009), which is equivalent to second producer behind China, however we need to lay an eye on that trend of world food market changed and customer demand to seek the eco-friendly, organic, health, safety and well-being oriented value is increasing.

With respect to 27,000 TON as production of Korean cultivated ginseng, we need to attempt to synthesize the whole situation for aspects of distribution and consumption by fresh ginseng, white ginseng(dried), white ginseng processed products, red ginseng roots and red ginseng processed products and distribution and consumption by Taekuksam and Black Ginseng. Future global market and domestic market can be diagnosed to expect that traditional market as stated above, new eco-friendly, organic Sanyangsam(cultivated in forest) and appearance of its processed products.

Pacing with change of consumption trend, it is considered that it's time to attempt to enter into domestic and foreign market through production and Research & Development of GAP(Good Agricultural Practice) products, various organic ginseng processed products, Sanyangsam which is cultivated in forest of mountain and its various processed products.

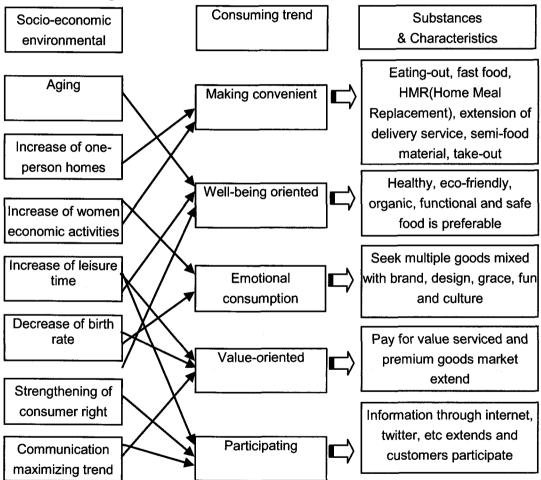
In respect of product type, the time has come for various production and development of cultivated ginseng products using GAP and white ginseng(root) and red ginseng(root) using organic cultivated ginseng and Sanyangsam, in addition to, the processed products thereof.

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- GAP cultivated ginseng Processed products of white ginseng and red ginseng (Honeyed ginseng slice, honeyed ginseng, tea, extract, capsule, tablet, drink, pill, etc)
- Sanyangsam Processed products of white ginseng and red ginseng (Honeyed ginseng slice, honeyed ginseng, tea, extract, capsule, tablet, drink, pill, etc)
- Organic cultivated ginseng Processed products of white ginseng and red ginseng (Honeyed ginseng slice, honeyed ginseng, tea, extract, capsule, tablet, drink, pill, etc)

## Seven trends in global food market



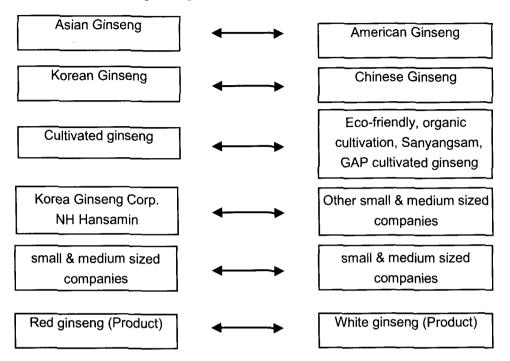
## Global environment in Agrifood Industry

Food security – Skyrocket of crude oil and international grain price, Spread of new energy exploitation, Extension of emerging market such as China, India, etc and increase of population

Food safety – Certification of GMP, HACCP, ISO, Extraneous Product Liability Law, Reinforcement of restriction, BSE, foot-and-mouth disease, AI, pesticide residue, GMO food, Traceability, Harmful additives, insecticide, Chemicals, Radioactivity, etc Reinforcement of competitiveness of Agrifood industry – FTA

GAP, Spread of eco-friendly and organic agriculture - Health and Safety

# Dynamics of global ginseng market



Tab. 1: Comparative Table of Hong Kong Market Price in 2005 (500g)

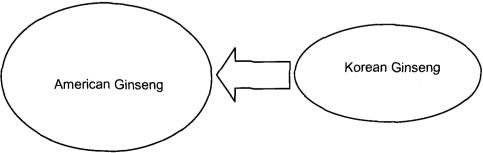
American ginseng (Top grade)	American (Lowest grade)	Korea Red Ginseng
H\$ 6,400	H\$733	H\$2,400

Tab. 2: Wild ginseng market price (500g)

American wild ginseng	American Sanyangsam
H\$ 20,000	H\$9,600

<sup>\*</sup> American Wild Ginseng occupies 99% of Hong Kong Market

# Reentering strategy into Hong Kong medicinal herb market



- · GAP cultivated ginseng, eco-friendly and pesticide-free cultivation
- · Organic cultivated ginseng
- Project of making luxury product inPremium by Sanyangsam, white ginseng and red ginseng and its processed products.

### **Product R&D:**

White ginseng, red ginseng and white ginseng processed products and red ginseng processed products made of GAP cultivated ginseng, Sanyangsam and Organic cultivated ginseng has the same pattern in their formulation and type, and classified into tea, extract, drink, tablet, honeyed ginseng, honeyed ginseng slice, soft capsule, hard capsule, pill, powder, extract powder, etc.

In addition to this, cultivated ginseng and Sanyangsam have more or less different properties of medicine; medicinal nature of cultivated ginseng takes on a little warm nature and Sanyangsam has a little cold nature. That is why cultivated ginseng contains mainly Triol based Saponin and Sanyangsam contains mainly Diol based Saponin. And it is possible to develop health functional food with specific functionality according to physical, chemical and biological technology which specializes in the certain Ginsenoside.

# Research & Development of product

- Cooked food: soup, Samgyetang(chicken stew with ginseng), honeyed ginseng, honeyed ginseng slice, tea, extract, drink, wine, fresh juice, cold meal, powder, etc
- Processed products
  - Material oriented type: Producer, Year of root, Origin, Fresh ginseng oriente d, Dry ginseng oriented, Above-ground part, Underground part, Separate ty pe, Mixing type, Red ginseng, White ginseng
  - 2) Formulation oriented type: Concentrate, Powder, Drink, Tonic, Pill, Capsule, Tablet, Candy, Jelly, Honeyed ginseng, Honeyed ginseng slice, Extract powder, Soap, Quasi-drugs such as cosmetics, etc
  - 3) Technology oriented type: Extraction, Concentration, Fermentation, Dry, Jui ce extraction, Ginsenoside graduation inducement(heating, pressurizing, aci d, microbial, fermentation, etc)

### Results

In order to cope with change of Korean and global consumption trend, it is forecast that GAP cultivated ginseng & its processed products, Organic cultivated ginseng & its processed products, Sanyangsam & its processed products as well as existing white ginseng (products), red ginseng (products), Taekuksam (products), black ginseng (products) will enter into market and customer demands will create new consumption. Eventually, it is considered that the time has come for considering and carrying out together for raw material cultivation and production, research and development of processed products and export and distribution of domestic and overseas market.

## References

Science of Korean Ginseng / Ko, S., Lim, B.(2009)