

Voluntary Report – Voluntary - Public Distribution

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Report Name: Revised Residue Limits for Heavy Metals and Pesticides
Spurs Demand for US Ginseng

Country: Hong Kong

Post: Hong Kong

Report Category: Agricultural Situation, Agriculture in the Economy, Sanitary/Phytosanitary/Food Safety

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Report Highlights:

Hong Kong is revising its residue limits for heavy metals and pesticides in Chinese herbal medicines in adherence with China's Pharmacopoeia (2020 Edition). Effective December 31, 2023, ginseng products will be subject to revised limits on heavy metals. Stricter limits for DDT (pesticides) will be conducted in two phases starting December 31, 2026. In anticipation of these changes, Hong Kong traders have responded by closing or relocating their ginseng processing plants out of Hong Kong as some suppliers are expected to face difficulties complying with the new limits. However, the trade is sourcing products from the United States as Hong Kong importers have higher confidence that U.S. ginseng will meet the stricter residue limits on DDT. Consequently, in the last two years, there has been an increased import demand for U.S. ginseng.

The Chinese Medicine Council of Hong Kong (CMCHK) is a statutory body established under the Chinese Medicine Ordinance (the Ordinance). The CMCHK is responsible for implementing regulatory measures for Chinese medicine practitioners and Chinese medicines, including setting limits for harmful residues in Chinese herbal medicines. There are a total 605 Chinese herbal medicines listed in Schedules 1 and 2 of the Ordinance. Ginseng (*Radix Panacis Quinquefolii*) is one of the regulated herbal medicines.

CMCHK has revised the residue limits for heavy metals and pesticides in Chinese herbal medicine. Ginseng is regarded and regulated as a Chinese herbal medicine and is the only U.S. export product that would be impacted by the upcoming standard revision.

Hong Kong Standard is Revised to Adhere to China’s Standard

Based on the rationale that Chinese herbal medicines for sale in Hong Kong are mainly imported from China, CMCHK decided to revise the Hong Kong standard by making reference to the limits set in China’s Pharmacopoeia. CMCHK had set up a working group to review the Hong Kong standard of Chinese herbal medicines following China’s update to its standard under China’s Pharmacopoeia (2020 Edition). After deliberation and consultation with the trade, the CMCHK has amended the residue limits in Chinese herbal medicines with respect to aflatoxins, heavy metals and pesticides. Ginseng is the only U.S. product that could be affected with this amendment exercise in the context of residues limits for heavy metals and pesticides. Ginseng is not subject to regulatory controls on aflatoxin.

Amendments to Residue Limits of Heavy Metals

Currently, Hong Kong has set maximum intake limit for Chinese herbal medicines for arsenic (1,500 mcg/day), cadmium (3,500 mcg/dose), lead (179 mcg/day), and mercury (36 mcg/day). The current revision exercise will set residue limits pertaining to a specific product. After the amendment, the revised residue levels for ginseng are as follows:

Chinese Herbal Medicine	Maximum limit (mg/kg)			
	Arsenic	Cadmium	Lead	Mercury
Radix Panacis Quinquefolii	2	1	5	0.2

Amendments to Residue Limits of Pesticides

According to the current regulatory situation in Hong Kong, the CMCHK has set limits for 9 organochlorine pesticide residues and required 17 organophosphate pesticides not detected in testing. These requirements are applicable to all regulated Chinese herbal medicines, including ginseng, and are laid out as follows:

Current Limits for Organochlorine Pesticide Residues

	Name	Test parameters	Maximum residue limit (mg/kg)
1	Aldrin and Dieldrin	Sum of Aldrin and Dieldrin	0.05
2	Chlordane	Sum of cis-chlordane, trans-chlordane and oxychlordane	0.05
3	DDT	Sum of p,p'-DDT, o,p'-DDT, p,p'-DDE and p,p'-TDE	1.0
4	Endrin	Endrin	0.05
5	Heptachlor	Sum of heptachlor and heptachlor epoxide	0.05
6	Hexachlorobenzene	Hexachlorobenzene	0.1
7.	Hexachlorocyclohexane	Sum of α -, β - and δ -isomers	0.3
8	Lindane	Lindane	0.6
9	Quintozene	Sum of quintozene, pentachloroaniline and methyl pentachlorophenyl sulphide	1.0

Current Standard - No Organophosphate Pesticides to be Detected in Testing

	Name		Name
1	Dichlorvos	10	Parathion
2	Methamidophos	11	Parathion-methyl
3	Trichlorphon	12	Monocrotophos
4	Omethoate	13	Phosphamidon
5	Diazinon	14	Chlorpyriphos
6	Dimethoate	15	Acephate
7	Malathion	16	Ethion
8	Isocarbophos	17	Methidathion
9	Triazophos		

According to the CMCHK, Chinese herbal medicines for sale in Hong Kong are mainly imported from China. Hence, it adopted the limits set for pesticide residues in China's Pharmacopoeia to regulate plant-based Chinese herbal medicines in Hong Kong. The Hong Kong Standards are to be revised as follows (based on China's Pharmacopoeia (2020 Edition)):

	Name	Residue/Test parameters	Limit of quantification (mg/kg)
1	Methamidophos	Methamidophos	0.05
2	Parathion-methyl	Parathion-methyl	0.02
3	Parathion	Parathion	0.02
4	Monocrotophos	Monocrotophos	0.03
5	Phosphamidon	Phosphamidon	0.05
6	Hexachlorocyclohexane	Sum of α -, β -, γ - and δ -hexachlorocyclohexane, expressed as hexachlorocyclohexane	0.1
7	DDT	Sum of <i>p,p'</i> -DDT, <i>o,p'</i> -DDT, <i>p,p'</i> -DDE and <i>p,p'</i> -TDE, expressed as DDT 0.1 8	0.1
8	Chlordimeform	Chlordimeform	0.02
9	Nitrofen	Nitrofen	0.05
10	Aldrin	Aldrin	0.05
11	Dieldrin	Dieldrin	0.05
12	Fenamiphos	Sum of fenamiphos and its oxygen analogue (sulphoxide and sulphone), expressed as fenamiphos	0.02
13	Fonofos	Fonofos	0.02
14	Cadusafos	Cadusafos	0.02
15	Coumaphos	Coumaphos	0.05
16	Sulfotep	Sulfotep	0.02
17	Terbufos	Sum of terbufos and its oxygen analogue (sulphoxides and sulphones), expressed as terbufos	0.02
18	Chlorsulfuron	Chlorsulfuron	0.05
19	Ethametsulfuron-methyl	Ethametsulfuron-methyl	0.05
20	Metsulfuron-methyl	Metsulfuron-methyl	0.05
21	Phorate	Sum of phorate, its oxygen analogue (sulphoxides and sulphones), expressed as phorate	0.02
22	Isofenphos-methyl	Isofenphos-methyl	0.02
23	Demeton	Sum of <i>O</i> -demeton and <i>S</i> -demeton, expressed as demeton	0.02

24	Carbofuran	Sum of carbofuran and carbofuran-3-hydroxy, expressed as carbofuran	0.05
25	Aldicarb	Sum of aldicarb its oxygen analogue (sulphoxide and sulphone), expressed as aldicarb	0.1
26	Ethoprophos	Ethoprophos	0.02
27	Isazofos	Isazofos	0.01
28	Isocarbophos	Isocarbophos	0.05
29	Endosulfan	Sum of alpha-endosulfan, beta-endosulfan and endosulfan sulphate, expressed as endosulfan	0.05
30	Fipronil	Sum of fipronil, fipronil desulfinyl, fipronil sulfone and fipronil sulfoxide, expressed as fipronil	0.02
31	Dicofol	Sum of <i>o,p'</i> -dicofol and <i>p,p'</i> -dicofol, expressed as dicofol	0.2
32	Phosfolan	Phosfolan	0.03
33	Phosfolan-methyl	Phosfolan-methyl	0.03

As for the pesticides set with residue limits by the CMCHK and not included in China's Pharmacopoeia, their limits will remain unchanged for regulating plant-based scheduled Chinese herbal medicines in Hong Kong. They are listed below.

Limits for Organochlorine Pesticides Residues

	Name	Test parameters	Maximum residue limit (mg/kg)
1	Chlordane	Sum of <i>cis</i> -chlordane, <i>trans</i> -chlordane and oxychlordane	0.05
2	Endrin	Endrin	0.05
3	Heptachlor	Sum of heptachlor and heptachlor epoxide	0.05
4	Hexachlorobenzene	Hexachlorobenzene	0.1
5	Quintozene	Sum of quintozene, pentachloroaniline and methyl pentachlorophenyl sulphide	1.0

No Residues of the following Organophosphate Pesticides are allowed

	Name		Name
1	Dichlorvos	7	Triazophos
2	Trichlorphon	8	Chlorpyrifos
3	Omethoate	9	Acephate
4	Diazinon	10	Ethion
5	Dimethoate	11	Methidathion
6	Malathion		

Implementation Timeframe

The revised limits related to heavy metals residues will become effective December 31, 2023, and revised limits related to pesticides residues on December 31, 2024. However, traders voiced their concern regarding the limit of DDT residues in ginseng and asked for longer grace period in order to dispose of existing inventory. CMCHK noted their concern and agreed to implement the amendment to the limit of DDT residues in ginseng in two stages. The first stage, effective on December 31, 2026, will have the products subject to the regulatory limit of 0.2 mg/kg. The second stage, which will require ginseng not to exceed the residue limit of 0.1 mg/kg, will become effective December 31, 2028, much later than the initial proposed date of October 2024.

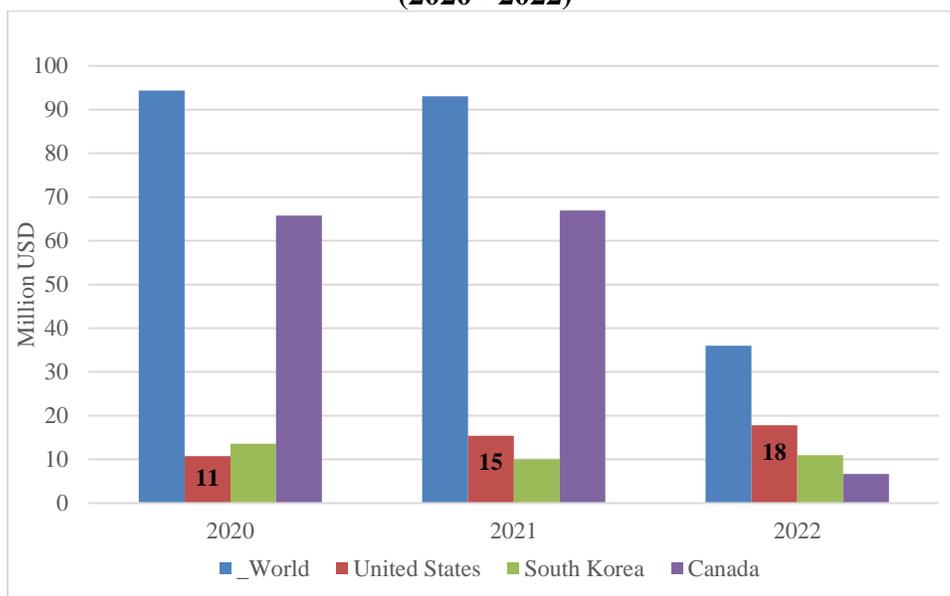
Local Trade Reactions

In connection with the revised regulations on ginseng, the local trade is mostly concerned with the pesticide – DDT. In view of the upcoming changes on DDT residue limits from 1.0 mg/kg to 0.1 mg/kg, Hong Kong ginseng importers voiced their concern that some inventories are unlikely to meet the standard. While insisting on adhering to the standard set in China, the Hong Kong government agreed to delay the effective date in order to let the trade prepare for the changes.

According to trade sources, there were two major ginseng processing plants in Hong Kong. Given the upcoming changes, one has closed, and another relocated out of Hong Kong. In the first three quarters of 2022, Hong Kong imported a total of \$36 million worth of ginseng from the world, declining significantly by 61 percent.

However, Hong Kong importers have high confidence that the ginseng imported from the United States will be able to meet the revised standard. Thus, demand for U.S. ginseng in Hong Kong has increased. United States became the largest supplier in 2022. Hong Kong's imports of ginseng from the United States increased 15 percent amounting to \$18 million during January – September 2022 compared to the corresponding period in 2021.

Table 1: Hong Kong’s Imports of Ginseng from Major Suppliers, January - September (2020 - 2022)

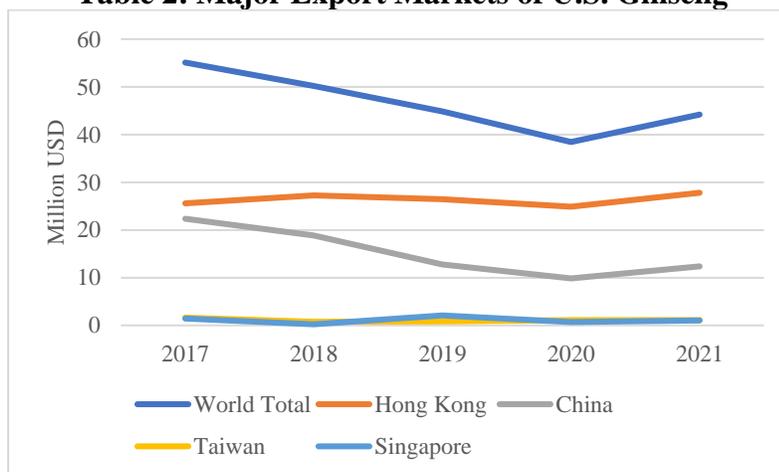


Source: Trade Data Monitoring – Hong Kong Census & Statistics Department

Note: Korean ginseng is of different species from ginseng products from the United States and Canada

Hong Kong has been the largest market for U.S. ginseng, accounting for 63 percent of all U.S. exports to the world. In 2021, U.S. ginseng exports to Hong Kong rose 12 percent to \$27 million the highest level since 2015.

Table 2: Major Export Markets of U.S. Ginseng



Source: FAS – GATS

Attachments:

No Attachments.