

# Republic of Korea Pesticide PLS and Regulation update

May 27 2020 Kyunghee Jung



Ministry of Food and Drug Safety









### Pesticide MRLs for Agricultural products



### Transition in Supervision system



## Change of MRLs Before and After PLS

Standard	Before PLS (~2018)	After PLS (2019~)
Pesticide With MRL	Apply the MRL	Apply the MRL
Pesticide Without MRL	<ol> <li>CODEX standards</li> <li>The lowest MRL of similar crops</li> <li>The MRL for 'Other agricultural products'</li> <li>The lowest MRL for the pesticide</li> </ol>	Default Level (less than 0.01 mg/kg)

I've been harvested by sticking to GAP as a registered pesticide!

I've used pesticide that's not registered...





Conform

### Illegal pesticide residues after PLS

	2018			2019			2020.1~4		
Foods	Total	llleg resid	jal ues	Total	llle resic	gal lues	Total Test	lllegal residues	
	lest	Case	%	lest	Case	%	-	Case	%
Domestic	63,234	761	1.2	58,825	613	1.0	14,035	120	0.9
Imported	14,706	92	0.6	11,059	101	0.9	2,742	20	0.7
<b>Total</b> (Domestic + Imported)	77,940	853	1.1	69,884	714	1.0	16,777	140	0.8

- Illegal rate in Imported foods is moderately lower than last year Herbs, Spices : 50 in 101 cases in 2019, 12 in 20 cases in 2020 Imported from US : Dichlorvos in Walnut (2019)

### **Regulation Update 1**

• Amendment of multi-residue method (Jul. 2019)

- Reinforced inspection on pesticide residues operates with expanded range of residue detection. (370 Pesticides → 473 Pesticides)
- New method was applied to random inspection of imported foods.



#### • Amendment of list for complete inspection (Apr. 2020)

No	Pesticides	No	Pesticides	No	Pesticides	No	Pesticides	No	Pesticides	No	Pesticides
1	Diazinon	11	Bifenthrin	21	Isoprothiolane	31	Triazophos	41	Fenpropathrin	51	Fludioxonil
2	DDT	12	Cypermethrin	22	Iprodione	32	Triflumizoic	42	Fenhexamid	52	Dimethoate
3	Dicofol	13	Cyprodinil	23	Carbaryl	33	Triflumuron	43	Phosmet, PMP	53	Chlorantraniliprole
4	Dichlorvos	14	Cyhalothrin	24	Carbofuran	34	Thiamethoxam	44	Procymidone	54	Chlorobenzuron
5	Malathion	15	Acetamiprid	25	Captan	35	Parathion Methyl	45	Prochloraz	55	Fipronil
6	Methomyl	16	Azoxystrobin	26	Quintozone	36	Paclobutrazol	46	Profenofos	56	Lufenuron
7	Methoxyfenozide	17	Atrazine	27	Chlorothalonil	37	Permethrin	47	Flubendiamide	57	Tebuconazole
8	Methidathion	18	Ethion	28	Chlorpyrifos	38	Fenitrothion:MEP	48	Pyraclostrobin		
9	Boscalid	19	Endosulfan	29	Chlorfenapyr	39	Fenvalerate	49	Pyrimethanil	58	2,6-DIPN
10	BHC	20	Imazalil	30	Triadimefon	40	Phenthoate	50	Pirimiphos-methyl		

Chlorpyrifos-methyl, Carbendazim, Thiabendazole, Clothianidin, Difenoconazole, Pyridaben, Imidacloprid, Piperonylbutoxide, Tolfenpyrad, Diflubenzuron

#### • Default processing factor in dried herbs (Dec. 2019)

Before	After		

Residues are allowed within maximum residue limit of the ingredient. That is, standards of agricultural and livestock are applied based on ingredient contents, and water content is considered if water content changed during processing like drying. (Pesticide maximum residue limit of dried chili (includes chili powder and shredded chili) is applied as 7 times to that of chili, green tea extract is 6 times that of its tea, dried ginseng and red ginseng is 4 times that of raw ginseng, ginseng extract and red ginseng extract is 8 times that of raw ginseng.) Residues are allowed within maximum residue limit of the ingredient. That is, standards of agricultural and livestock are applied based on ingredient contents, and water content is considered if water content changed during processing like drying. (Pesticide maximum residue limit of dried chili (includes chili powder and shredded chili) is applied as 7 times to that of chili, green tea extract is 6 times that of its tea, dried ginseng and red ginseng is 4 times that of raw ginseng, ginseng extract and red ginseng extract is 8 times that of raw ginseng, dried herbs is 10 times that of fresh herbs.)

#### • Amendment of Representative commodity (May. 2020)

Group	Sub-group	Representative commodities	Items
Nut seeds	Peanuts or nuts	peanut	<u>Peanut</u>
		≥2 agro products	<u>Chestnut, walnut, ginko, pine nut, almond, pecan,</u> cashew nut, hazelnut, macadamia, <u>pistachi</u> o, acorn, etc.
	Oil seeds	≥3 agro products	Sesame, cotton seed(cotton plant seed), sunflower seed, pumpkin seed, perilla seed, olive, evening primrose seed, <u>rape</u> <u>seed(canola)</u> , palm, safflower seed, hempseed, moringa (drumstick) seed, beefsteak plant (perilla frutescens) seed, etc.
	Seeds for beverage and sweets	Coffee beans, cacao beans	<u>Coffee bean, cacao bean</u> , cola nut, guarana, cassia seed

- Temporary MRLs are operated for temporarily registered pesticides and planned to be revoked in Dec. 2021.
- 2,546 temporary MRLs for 204 pesticides were set in 2018.
- 800 temporary MRLs are for imported foods.
- If you need to make a temporary MRL into a permanent MRL before the revocation, you should applied for IT and submit data to MFDS by no later than March next year.

### Recommendations

- Simplification of petition procedures for IT
  - Temporary exemption from the requirement to submit
     Korean-translated summary (~ Dec. 2021)
  - Residue data ↔ Report from JMPR, EPA or EFSA
- Information on pesticide residues detected under inspection for imported agricultural products
  - Expect to hold an Information session in June



6

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### New 107 Pesticides in multi-residue method







No	Compound	LC/GC
1	Abamectin	
2	Acephate	
3	Acetochlor	
4	Acibenzolar-S-methyl	GC
5	Alachlor	
6	Ametoctradin	LC
7	Aramite	<u> </u>
8	Benoxacor	GC
9	Benthiavalicarb-isopropyl	
10	Benzobicyclon	LC
11	Bitertanol	

No	Compound	LC/GC
12	Bromophos-ethyl	GC
13	Buprofezin	LC
14	Butachlor	GC
15	Cafenstrole	
16	Carbendazim	
17	Carboxin	LC
18	Carfentrazone-ethyl	
19	Carpropamid	
20	Chlorbenside	GC
21	Chlorfenvinphos	LC
22	Chlornitrofen	GC

No	Compound	LC/GC
23	Chloroxuron	
24	Chlorpropham	GC
25	Cinidon-ethyl	
26	Clofentezine	LC
27	Clomazone	
28	Coumaphos	GC
29	Crotoxyphos	
30	Crufomate	LC
31	Cyprazine	GC
32	Daimuron	LC
33	Dialifos	GC

No	Compound	LC/GC
34	Diclobutrazol	
35	Diclofop-methyl	GC
36	Difenoconazole	
37	Diflubenzuron	LC
38	Dimethametryn	GC
39	Dinotefuran	
40	Diuron	
41	Ethylchlozate	GC
42	Famoxadone	LC
43	Fenamiphos	66
44	Fenclorim	GC

No	Compound	LC/GC
45	Fenoxaprop-ethyl	
46	Fentrazamide	
47	Fluazifop-butyl	66
48	Flucythrinate	GC
49	Fluopicolide	
50	Flupyradifurone	
51	Flutianil	GC
52	Fluxapyroxad	LC
53	Formothion	GC
54	Hexazinone	
55	Hexythiazox	

No	Compound	LC/GC
56	Imicyafos	
57	Imidacloprid	LC
58	Isopyrazam	
59	Isotianil	66
60	Isoxadifen-ethyl	GC
61	Mandipropamid	
62	Mephosfolan	LC
63	Metalaxyl	
64	Metazachlor	GC
65	Milbemectin-A3, A4	LC
66	Mirex	GC

No	Compound	LC/GC
67	Monocrotophos	LC
68	Monolinuron	GC
69	Neburon	
70	Norea (Noruron)	
71	Norflurazon	GC
72	Omethoate	LC
73	Oxadiazon	66
74	Oxyfluorfen	GC
75	Pencycuron	LC
76	Penflufen	66
77	Pentachlorobenzonitrile	GC

No	Compound	LC/GC
78	Penthiopyrad	
79	Perthane	GC
80	Phenothrin	
81	Phorate, Phorate oxon, Phorate oxon sulfone, Phorate oxon sulfoxide, Phorate sulfone, Phorate sulfoxide	
82	Phosfolan	LC
83	Phoxim	
84	Piperonyl butoxide	
85	Pretilachlor	GC
86	Prometryn	
87	Propamocarb	LC
88	Propanil	GC

No	Compound	LC/GC
89	Propiconazole	GC
90	Proquinazid	LC
91	Pyridaphenthion	GC
92	Pyriftalid	LC
93	Quizalofop-ethyl	
94	Silafluofen	GC
95	Simazine	LC
96	Simetryn	GC
97	Spinetoram	LC
98	Spinosyn-A, D	
99	Spiromesifen	GC

No	Compound	LC/GC
100	Sulfoxaflor	LC
101	Terbutryn	GC
102	Thiabendazole	LC
103	Thiobencarb	
104	Thionazin	GC
105	Triallate	
106	Tridiphane	
107	Vamidothion	LC