Pesticide MRL Setting and PLS Progress in Korea

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Outline

Positive List System
 MRLs setting (Import tolerance)
 Q & A



Positive List System



- ✓ Scientifically manage through accurate assessment of intake.
- ✓ Prevent excess use and misuse of pesticide
- Inhibit use of non-registered pesticides which are not evaluated by scientific assessment

Positive List System

1st: Nuts/seeds and Tropical fruits

Enforcement : from 2016.12.31

Administrative notice : 2014. 7., Notice No.2015-78 (2015.10.29)

Large classifica tion	Small classification	Commodity
	Peanut and Tree Nuts	Peanut, Chestnut, Walnut, Gingko nut, Pine nut, Almond, Pecan, C ashews, Hazelnut, Macadamia, Pistachio, Acorn etc.
Tree Nuts and Oilseeds	Oilseeds	Sesame, Cotton Seeds, Sunflower, Canola Seeds, Palm, Olive, Saf flower etc.
	Seeds for beverages and sweets	Coffee beans, Cacao beans, Cola nuts, Guarana

* MRLs of no-registered pesticide -> uniform level(same time with 2nd PLS enforcement)

2nd: Other crops

Enforcement: 2018.12

Positive List System							
	1 st PLS (2016.12.31~)	2 nd PLS (2018. 12~ exp)					
Crops	Nuts/Seeds Tropical fruits	All crops					
Application of Provisional MRL	No for Nuts/Seeds & Tro pical fruits Yes for other crops	No for all crops					

Pesticide MRL in Korea

Status of pesticide MRL in Korea

The number of agricultural commodities : 262 The number of pesticides : 462

The total number of MRLs: 7,629

What are the pesticide MRLs set in Korea?

① Pesticide MRLs registered for use in Korea

② Pesticide MRLs established through import tolerance(†)

③ Pesticide MRLs set based on international standards

in the past (To be deleted)



Current pesticide MRL System

MRLs for individual crops or crop groups, and processed foods Ex) Food Code [Annex 4]

(42) 메토프렌(Methoprene) ADI : 0.07 mg/kg b.w./day ② 잔류물의 정의(Residue definition) : Methoprene (cis형태와 trans형태의 합)

귀리(Oat)	5.0	버섯류(Mushrooms)	0.2	옥수수(Com)	5.0
땅콩(Peanut)	2.0	보리(Barley)	5.0	조(Millet)	5.0
메밀(Buckwheat)	5.0	수수(Sorghum)	5.0	호밀(Rye)	5.0
밀(Wheat)	5.0	쌀(Rice)	5.0		

Reference: 1) Food code (www.mfds.go.kr) 2) Pesticide MRLs in Food (www.foodnara.go.kr/residue >Downloads> Pesticide)

MRL setting: TMDI ≤ 80% of ADI (10% drinking water, 10% residential environment)

No MRLs?

Provisional MRLs, then (2016.12.31.~2018.12)

Principle of **Provisional** MRLs

1 The Codex standard

(2) Not applied (1), then the lowest of the MRL in

similar agricultural products

③ Not applied ①, ②, then lowest of the MRL, among MRLs of the pesticide detected.

* If MRL for nuts and seeds, and tropical fruits is not established, defa ult MRLS of 0.01 mg/kg will be adapted.

What are the problems of provisional MRLs?

(1) Can not be managed safely if unregistered pesticides are used **(2)** May change several times a year and cause confusion in the application of MRLs - When codex MRL and the lowest MRL of belong to the same subcategory changes **③** Difficult to assess the correct intake of the population because it is missing from the intake (4) May be imported even if it does not meet the MRL of the produci ng country

Changes in management system after introduction of PLS

Current system

① MRLs already set (Pesticide registered for use or reviewed by IT) → Apply the existing MRLs

2 MRLs that have no scientific basis \rightarrow Apply the existing MRLs

③ MRLs are not established

→ Apply codex MRLs and the lowest MRLs for the same subcategory

 \rightarrow Can be distributed

Future Plan

(1) MRLs already set (Pesticide registered for use or reviewed by IT) \rightarrow Apply the existing MRLs

2 Remove MRLs
(After a period of time for IT setting: 21.12)
Apply default MRL of 0.01 ppm

③ MRLs are not establishedApply default MRL of 0.01 ppm

* Possible to set the MRLs based on the submitted data if you need a MRL setting (Import tolerance, IT)



Changes in Group MRLs

Current System

Group MRLs nuts, tropical fruits, citrus, legume

Import Tolerance?

Application for representative crops Group MRLs requirement for remark

Future Plan

Group MRLs All agricultural products

Import Tolerance?

Suggestions for PLS

- 1 Request to maintain current MRLs until IT are set.
 - \Rightarrow We will postpone the deletion until Dec 2021.
- 2 Accept the codex MRLs.
 - \Rightarrow It is reasonable to set the MRLs through the evaluation

according to the principle.

- 3 Release evaluation report.
 - \Rightarrow From 2017, the MRLs setting report is posted

on the MFDS homepage.

Policy for smooth introduction of PLS

1 Expanding Group MRLs

Beans, Citrus fruits, Tree nuts, Tropical fruits

All agricultural products available

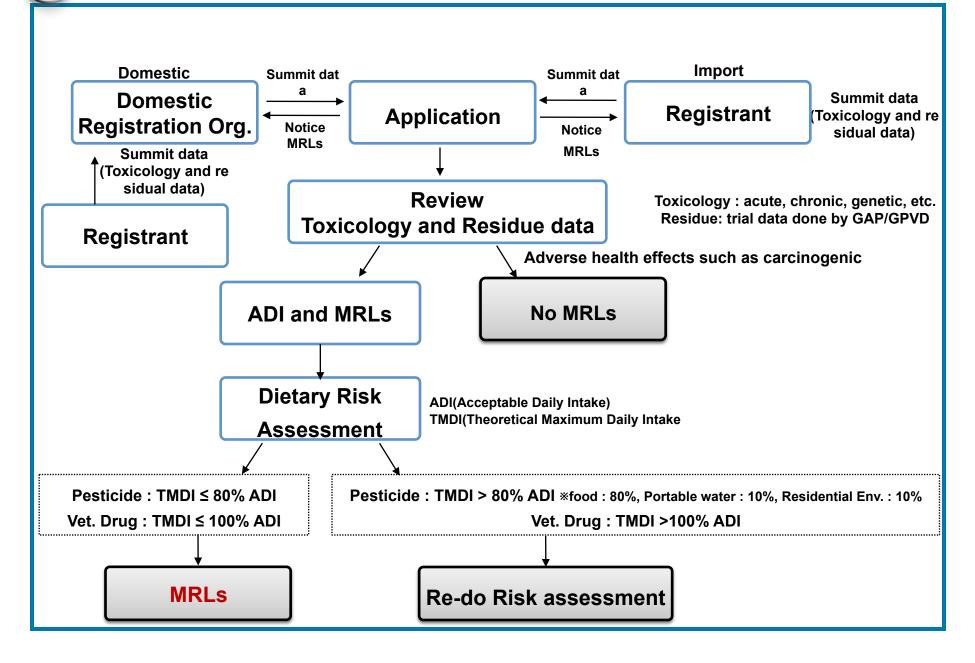
- ② In the case of generic pesticides, it is possible to substitute the data n ecessary for IT application with codex, US, EU, Japan MRL setting d ata.
- ③ Minor crops(Leafy, Stalk and stem vegetables) cultivated domesticall y are set group MRLs based on its own research project.
- ④ Those scheduled to be deleted will be deferred to be deleted. (2018. $12. \rightarrow 2021.12.$)



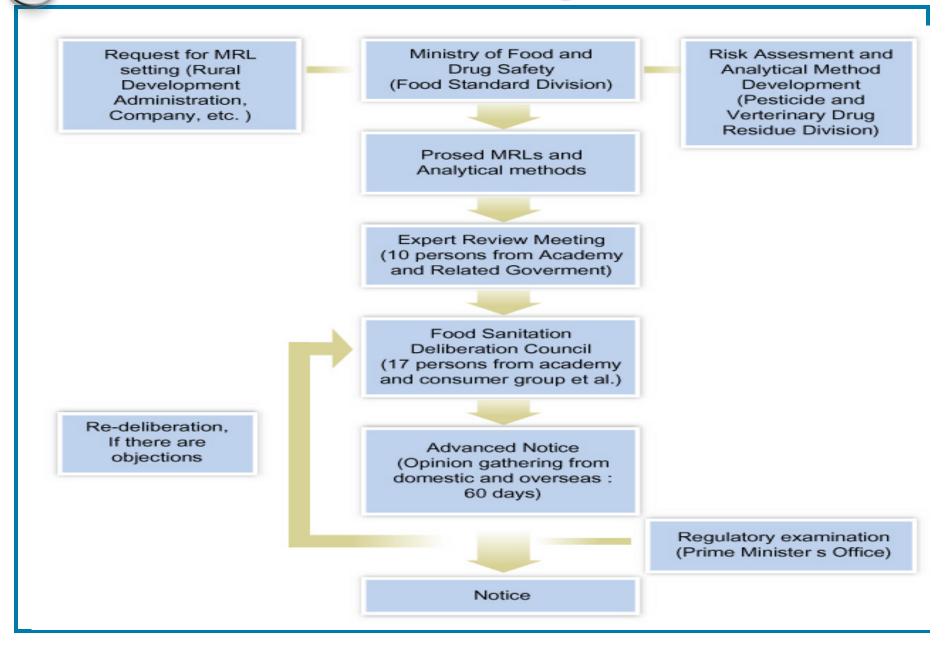
MRLs Setting (Import tolerance)



Procedure of MRLs setting



Procedure of IT MRLs setting



Import Tolerance

- 1. Application via on-line
 - http://www.foodsafetykorea.go.kr
- 2. Processing time
 - Establishment of MRL : 365 working days
 - Change or Exemption of MRL : 210 working days
 - * Complementation: Max. 2 times, 6 months
- 3. Processing cost
- 1) Toxicology data (per pesticide)
 - New MRLs: 30,000,000 KRW (about \$25,000)
 - Change or Exemption of MRL : 10,000,000 KRW (about \$8,500)
- 2) Residue data
 - Pesticide: 5,000,000 KRW (per crop) (about \$4,500)
 - Veterinary drug: 10,000,000 KRW (per animal) (about \$8,500)

- 4. Data Requirement
 - 1) Minimum of 6 field trials for major crop

(except for minor crop or group MRL)

- 2) IT for non-registered pesticide in Korea (Food code [Annex 8])
 - Toxicology data and summary
 - 1 hard copies of residue data and summary of GAP
 - * Summary should be prepared in Korean
- 3) Additional MRLs for crops
 - The approved label
 - 1 hard copies of residue data and summary of GAP
 - For Generic pesticide, it might be possible to use evaluation reports (such as US or CODEX JMPR evaluation) instead of original residue data.

4) Miscellaneous

- Usage and Registration status in other countries
- MRL establishment status in Codex and other countries
- Impurity information regarding the product
- * Standard
- For new compound, parent compound 5g and metabolite 1g
- MFDS might ask more standard for analysis method develop and other reasons

Principle of MRL setting < Individual crops >

- * MRLs proposal method
- Assessment based on codex guide line(FAO manual and etc) or EU evaluation manual
- In the same field trials, when the formulation, dilution rate, etc. are differ ent, the treatment with the highest residue is selected
- The residue of each field trials is selected by the average value of the re sidue
- Derive the OECD calculator value using the residues from each field trials

The OECD calculator value is proposed as a MRL. We also consider the codex MRL if the submitted data is identical to the data reviewed by the codex.

* MRL of countries that have performed field trials or applied for IT, and MRL for major exporting countries can be considered.

Principle of MRL setting

< Individual crops >

* Scope of acceptable residue data

- Residue data of 6 trials produced under GLP
- Less than 6 trials can be accepted if internationally classified as minor cr ops.
- The application amount higher than the GAP can be accepted, if the pes ticide is not retained. (LOQ level will be MRL)
- Proportionality rule may be applicable for data which are approved by Codex(0.3~4 times)
- In the case of generic pesticides, submission data can be substituted for evaluation reports such as codex, EU and USA.

Principle of MRL setting

< Set group MRLs >

- Residue data of representative crops of each group should be submitted.
- GAP and residual patterns should be similar.
- Group MRLs can be set when the median value of representative crops i s within 5 times.

The OECD calculator value or the OECD calculator value of the crop with the highest residue is set to the group MRLs by comparing the similarity of the residue patterns between the crops.

* TI	ne com	modity grou	p classification
Туре	Group	Representative commodity	Commodity
		Rice	Rice
		Wheat	<u>Wheat</u>
Cereal	-	Maize	Maize
grains		Commodities of three or more (including wheat)	<u>Barley</u> , Buckwheat, Foxtail, <u>Sorghum, Oats, Rye,</u> Job's tear, Proso millet, Japanese-barnyard millet, Quinoa, Triticale etc
Potatoes	-	Potato, Sweet potato	<u>Potato, Sweet potato,</u> Taro, Yam, Cassava(tapioca), Konjac etc
Beans* (legume)	-	Commodities of two or more (including Soybean or beans or Pea)	<u>Soybean,</u> Mung bean, <u>Pea,</u> Kidney bean, Cowpea, Red bean, Broad bean, Pigeon pea, Lima bean, Chick-pea, Green bean, Lentils, Jac k bean etc
		Peanut	<u>Peanut</u>
	Peanut or nuts	Commodities of two or more	<u>Chestnut, Walnut,</u> Gingko nut, pine nut, <u>almond, pecan,</u> Cashew nu t, Hazel nut, Macadamia, <u>Pistachio,</u> Acorn etc
Nuts and oilseeds	Oilseed	Commodities of three or more	<u>Sesame, Cotton Seed,</u> Sunflower seed, Pumpkin Seed, Perilla-seed , Olive, Evening primrose seed, <u>Rape seed</u> , Plam tree, Safflower, H empseed, Ben Moringa seed etc
	Seed for Beverage and sweets	Coffee bean, Cacao bean	<u>Coffee bean, Cacao bean,</u> Cola nut, Guarana
* It nee		Scientific name	

Туре	Group	Representative commodity	Commodity
	Pome fruits	Apple, Pear	Apple, Pear, Quince, Persimmon, Pomegranate etc
	Citrus fruits	Commodities of three or more	<u>Mandarin, Orange, Grapefruit, Lemon,</u> Chironga(orangelo), Lime, (val kunquat, Hardy orange, Citron etc
Fruits	Stone fruits	Commodities of three or more (including peach)	<u>Peach, Jujube, Apricot, Plum, Japanese plum, Cherry</u> , Nanking c erry, San-su-yu, Schisandraberry etc
	Berries and other small fruits	Commodities of four or more	<u>Grape, Strawberry</u> , Goji berry, Akebia, Berries (<u>Blueberry</u> , <u>Cranebe</u> y, Currant, <u>Rubi Fructus(including Raspberry, Korean raspberry)</u> , Mulberry) etc
	Assorted tropical and sub-tropical fruits		<u>Banana, Pineapple, Kiwifruit, Avocado, Papaya,</u> Date, <u>Mango,</u> Gua a, Coconut, <u>Litch,</u> Passion fruit, Durian, Mangosteen, <u>Longan, Fig</u> <u>Dragon fruit</u> , Soursop etc

Туре	Group	Representative commodity	Commodity
	Flowerhead brassicas	Commodities of two or more	<u>Korean cabbage head,</u> Cabbage <u>(including Brussels sprouts), (including Cauliflower)</u> etc
Vegetables	Leafy vegetables	Commodities of three or more	Korean cabbage(including Ssam cabbage, Seasoned cabbage), Lett uce, Lettuce head, Spinach, Perilla Leaves, Crown daisy, Marsh mallow, Chard , Butterbur, <u>Radish(including leaves, young radish)</u> , Chwinamul,(Go mchwi, chamchwi, Asian goldenrod), Papper leaves, Chamnamul, Kal e, Chinese vegetable, Mustard leaf, Shepherd's purse, Chicory(leaves), En dive, Parsley, Pumpkin young leaves, Shinsuncho, Korean wasabi(I eaves), Amaranth, Toothed ixeris, Burdock Leaves, <u>Gyeojachae</u> , New gr een, Dachungchae, Dong quai leaf, Foremost mugqwort, False Solomon 's Seal leaf, Mulberry Leaves, Rape, Chunchae, Sonchus-leaf, Indian lett uce, Dandelion, Beach silvertop, Gondre, Burdock Leave, Uleungdo ast er, Ussuri thistle, Alpine leek, Vitamin, Common day lily, East Asian wil dparsley, Sedum, Beat leaves etc

Туре	Group	Representative commodity	Commodity
	Stalk and stem vegetables	Commodities of two or more	<u>Welsh onion</u> , Chinese chives, <u>Water celery</u> , sweet potato stem, Taro stem, Bracken, <u>Asparagus</u> , <u>Celery</u> , Bamboo shoot, Kohlrabi, Dureu p young shoot, Wild garlic, Royal fern, Green garlic(including garlic flower stalk), Chinese onion(rakkyo), Saltmarsh sand spurry, Leek, Allium hookeri etc
Vegetables	Root and tuber vegetables	Commodities of three or more	<u>Radish(root)</u> , <u>Onion</u> , <u>Garlic</u> , <u>Carrot</u> , Ginger, Lotus root, Burdock, Do ragi(Balloon flower), Deodeok, Beet, <u>Sugar beet</u> , Turnip, Parsnip, Ya con, Korean wasabi(root), Chicory(root), Ginseng(including wood c ultivated ginseng), Korean solomon's seal(root) etc
	Fruiting vegetables, Cucurbits	Commodities of three or more	<u>Cucumber</u> , Squash, Korean melon, <u>Watermelon, Melon, Zucchini(wi</u> <u>nter squash)</u> etc
	Fruiting vegetables other than Cucurbits	Commodities of three or more	<u>Tomato(including cherry tomato)</u> , Green & Red pepper(fresh), Swee t pepper <u>(including paprika)</u> , Eggplant, Okra, Unripe bean etc

Туре	Group	Representative commodity	Commodity	
Mushroo ms	-	Commodities of two or more	<u>Oyster mushroom</u> , Pine mushroom, <u>Shiitake mushroom</u> , <u>Cultivated mushroom</u> , Caulifower coral, <u>Enoke</u> , Hirmeola, Reishi mushroom, <u>K</u> <u>ing oyster mushroom</u> , Black hoof mushroom, Parasol mushroom, Nameko, Cantharelluls luteocomus, Almond mushroom, Stone ear mushroom etc	
	Herbs	commodity of one or	<u>Mustard(Seeds),</u> <u>Coriander(Seeds),</u> <u>Nutmeg(Seeds)</u> , <u>Fennel(Seeds),</u> <u>Cumin(Seeds),</u> <u>Cardamom(Seeds),</u> <u>Vanilla, beans(Seeds)</u> , <u>Anise(Se</u> <u>eds)</u> , <u>Celery (Seeds)</u> etc	
		Herbs ((bark, branch, bud) etc)	<u>Pepper, Sichuan(Fruits), Pepper(Fruits), Pepper, Long(Fruits)</u> , Caper (Fruits) etc
Herbs and				<u>Coriander(Roots), Turmeric(Roots)</u> etc
Spices		or more	<u>Cinnamon(branch),</u> <u>Cinnamon(bark)</u> , <u>Cloves(Flower buds),</u> <u>Saffron(</u> <u>Stigma), Sweet Cicely</u> etc	
	Spices	Commodities of two or more	<u>Rosemary, Basil, Coriander leaves, Laurel leaves, Sichuan pepper s prouts, Peppermint, Fennel, Mints, Lemongrass, Stevia(leaves), dill(l eaves), Oregano, Thyme, Lavender, Calendula(flowers), Hyssop, ani se</u> etc	
Tea leaves	-	Tea leaves	<u>Tea leaves</u>	
Hops	-	Hops	<u>Hops</u>	

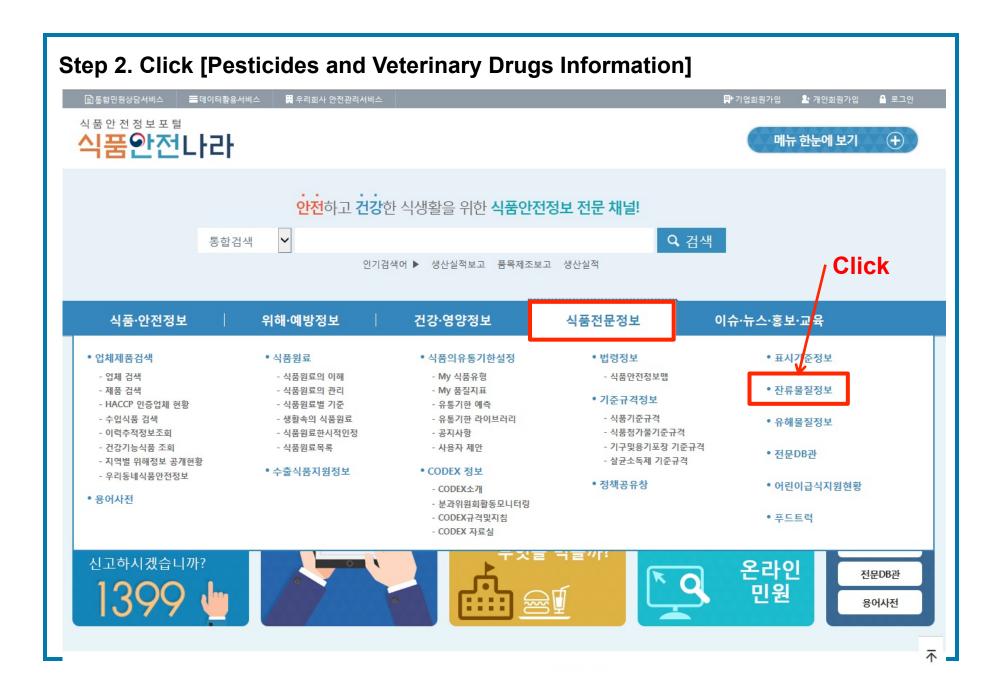
List of Exempted Pesticides

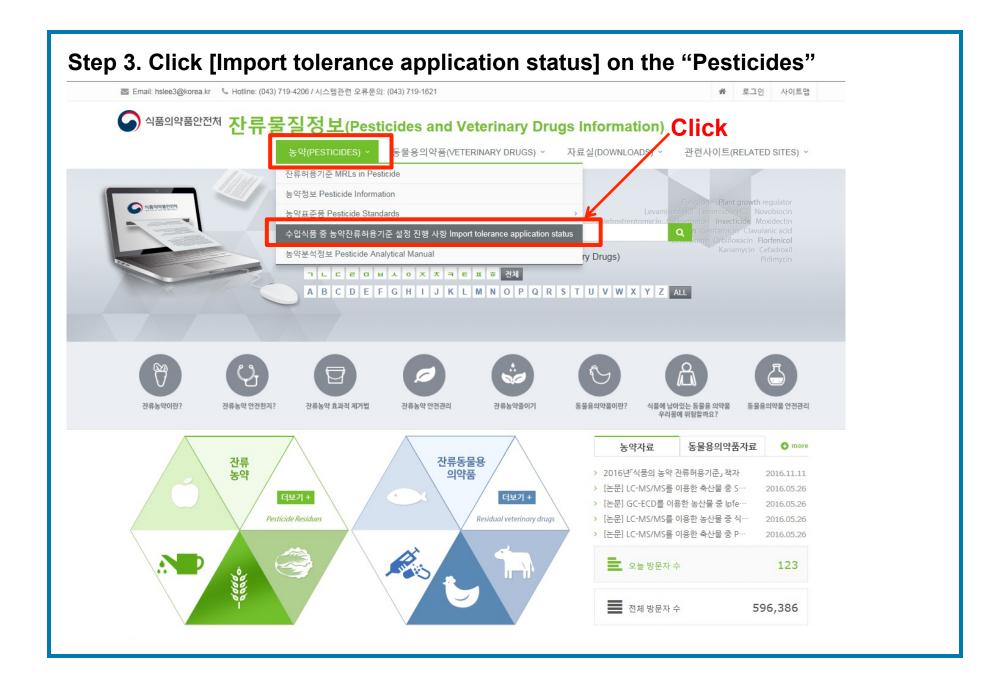
	·		
No.	Active ingredient	28	스트렙토마이세스 콜롬비엔시스 더불유와이이20 (Streptomyces colombiensis WYE20)
1	1-메틸사이클로프로펜 (1-Methylcyclopropene)	29	스프레더 스티커(Spreader sticker)
2	기계유(Machine oil)	30	폴리에틸렌 메틸 실록세인(Polyethylene Methyl Siloxane)
3	데실알코울(Decylalcohol)	31	아이비에이 (IBA, 4-indol-3-ylbutyric acid)
4	모나크로스포륨타우마슘케이비시3017	32	아이에이에이 (IAA, Indol-3-ylacetic acid)
-	(Monacrosporium thaumasium KBC3017)	33	알킬설폰화알 킬레이트의 나트룸염 (Sodium salt of alkyIsulfonated alkylate)
5	바실루스 서브틸리스 디비비1501(Bacillus subtilis DBB1501)	34	알킬아릴 폴리에톡시레이트(Alkylaryl polyethoxylate)
6	바실루스 서브틸리스 시제이-9(Bacillus subtilis CJ-9)	35	암펠로마이세스 퀴스콸리스 에이큐94013
7	바실루스 서브틸리스 엠27(Bacillus subtilis M 27)	26	(Ampelomyces quisqualis AQ94013)
8	바실투스 서브틸리스 멤비아이600(Bacillus subtilis MBI600)	36	옥시에틸렌 메틸 실록세인(Oxyethylene methyl siloxane)
9	바실루스 서브틸리스 와이1336(Bacillus subtilis Y1336)	37	지베렐린류(Gibberellin A ₃ , Gibberellin A ₄₊₇)
10	바실투스 서브틸리스 이더불유42-1(Bacillus subtilis EW42-1)	38	칼슘 카보네이트(Calcium carbonate)
11	바실루스 서브틸리스 제이케이케이238(Bacillus subtilis JKK238)	39	코퍼 설페이트 베이식(Copper sulfate basic)
12	바실루스 서브틸리스 지비365(Bacillus subtilis GB0365)	40	코퍼 설페이트 트리베이식(Copper sulfate tribasic)
		41	코퍼 옥시클로라이드(Copper oxychloride)
13	바실루스 서브틸리스 케이비401(Bacillus subtilis KB401)	42	코퍼 하이드록사이드(Copper hydroxide)
14	바실루스 서브틸리스 케이비시1010(Bacillus subtilis KBC1010)	43	트리코델마 하지아늄 와이씨 459(Trichoderma harzianum YC 459)
15	바실루스 서브틸리스 큐에스티713(Bacillus subtilis QST713)	44	패니바실루스 폴리믹사 에이시-1(Paenibacillus polymyxa AC-1)
16	바실투스 아밀로리퀴파시엔스 케이비시1121 (Bacillus amyloliquefaciens KBC1121)	45	패실로마이세스 퓨모소로세우스 디비비-2032 (Paecilomyces fumosoroseus DBB-2032)
17	바실루스 푸밀루스 큐에스티2808(Bacillus pumilus QST2808)	46	폴리나프틸 메탄 설폰산 디알킬 디메틸 암모니움염 (PMSAADA) (Polynaphthyl methane sulfonic acid dialkyl dimethyl ammonium)
18	보르도 혼합액(Bordeaux mixture)	47	폴리에테르 폴리실록세인(Polyether modified polysiloxane)
19	뷰베리아 바시아나지에이치에이(Beauveria bassiana GHA)	48	폴리옥시에틸렌 메틸 폴리실록세인(Polyoxyethylene methyl Polysiloxane)
20	뷰베리아 바시아나티비아이-1(Beauveria bassiana TBI-1)	49	폴리옥시에틸렌 알킬아릴에테르(Polyoxyethylene alkylarylether)
21	비티 아이자와이(Bacillus thuringiensis subsp. aizawai)	50	폴리옥시에틸렌 지방산 에스테르(Polyoxyethylene fatty acid ester(PFAE))
22	비티 아이자와이 엔티423(Bacillus thuringiensis subsp. aizawai NT0423)	51	황(Sulfur)
23	비티 아이자와이 지비413(Bacillus thuringiensis subsp. aizawai GB413)	52	니즈(polynaphtyl methane sulfonic + polyoxyethylene fatty acid ester)
24	비티 쿠르스타키(Bacillus thuringiensis subsp. kurstaki)	53	소듐 리그노 설포네이트(Sodium ligno sulfonate)
25	비티 쿠르스타키(Bacillus thuringiensis var. kurstaki)	54	심플리실리움 라멜리콜라 비씨피(Simplicillium lamellicola BCP)
25		55	트리코더마 아트로비라이드 에스케이티-1(Trichoderma atroviride SKT-1)
	석회황(Calcium polysulfide, lime sulfur) 스트렙토마이세스 고시키엔시스 더불유와이이324	56	파라핀, 파라핀오일(Paraffin, Paraffinic oil)
27	(Streptomyces goshikiensis WYE324)	57	펠라르곤산(Pelargonic acid)

* Want to know The status of IT application?

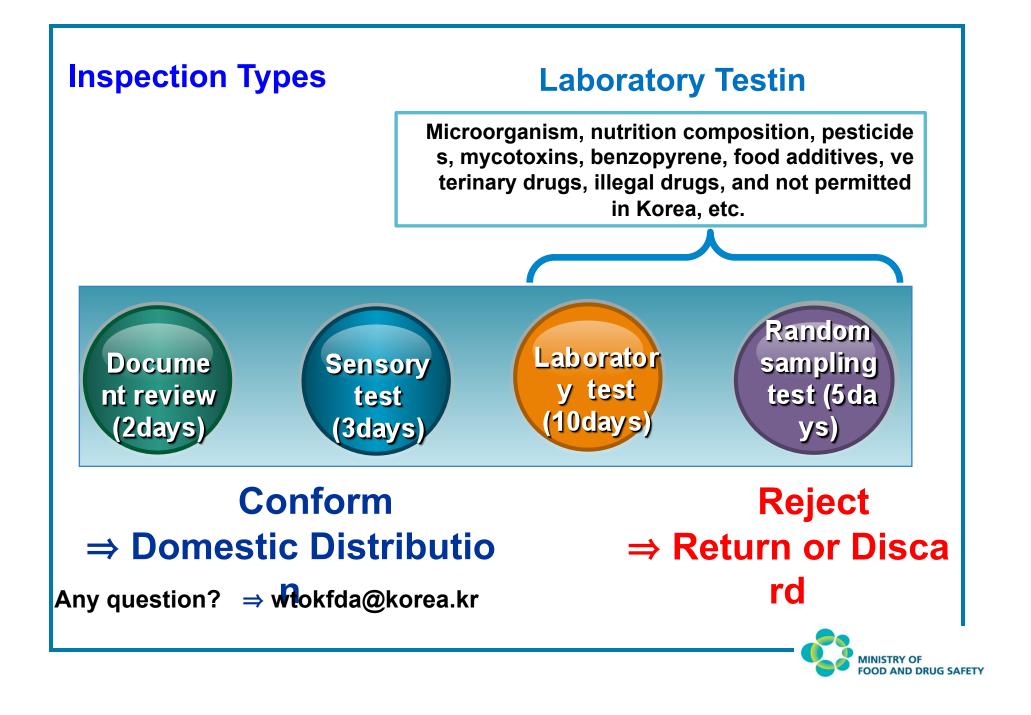
Step 1. Access the homepage of Food Safety : Korea(www.foodsafetykorea.go.kr/ mail.do) and click [Food Specialized Information Service]







🛿 Email: hslee3@korea.kr 🛛 📞 Hotline: (043)	719-4206 / 시르	스템관련 오류문의: (0	043) 719-1621				✿ 로그인 사이트맵	
♀ ^{식품의약품안전처} 잔류물질정보(Pesticides and Veterinary Drugs Information)								
			동물용의약품(VETERII		자료실(DOW)		사이트(RELATED SITES) ~	
농약 _(Pesticides)			<mark>가여러분의 식탁을 풍요롭</mark> the residual chemicals to en			0,00		
		> 농약(Pesticides	s) > <u>수입식품 중 농약</u> :	잔류허용기준 설정 진형	: 사항 Import tolera	nce application status		
잔류허용기준 MRLs in Pesticide	수입	식품 중 농약잔혁	루허용기준 설정 진행 /	사항(Import tolei	ance applicatio	on status)		
농약정보 Pesticide Information	Ê	신청일을 선택	▲ 농약명을 입력하세	A. 🕯 प	상식품을 입력하세요	신청회사	를 입력하세요. 검색	
농약표준품 Pesticide Standards >	■ 홈 276건, 현재페이지: 1/19							
수입식품 중 농약잔류허용기준 설정 진행 사항 Import tolerance								
application status	No.	농약명 Pesticide	대상식품 Commodity	신청일 Application date	검토완료예정일 Complete date	신청회사 Application company	비고 Remark	
농약분석정보 Pesticide Analytical	1	Trifloxystrobin	Potato	2016-05-25	2017-10-27	Bayer		
Manual	2	Trifloxystrobin	Oat	2016-05-25	2017-10-27	Bayer		
💋 잔류농약 안전관리	3	Propargite	Tree nuts (Walnut)	2016-04-19	2017-09-21	Arysta	0.1 mg/kg (견과류), 제2016- 154호(16.12.29) 고시	
동물용의약품 안전관리	4	Buprofezin	Tree nuts (Pistachio)	2016-05-27	2017-09-27	Exponent International Limited	0.05 mg/kg(견과류), 제2016- 154호(16.12.29)고시	
▶ 농약 이젠 안심하세요 동영상 다운로드	5	Cyantraniliprole	Tree nuts (Walnut, Pistachio)	2016-04-01	2017-09-11	Dupont	0.04 mg/kg (견과류), 제2016- 154호(16.12.29) 고시	
	6	Tebuconazole	Melon	2016-05-11	2017-10-25	Bayer		
	7	Tebuconazole	Plum	2016-05-11	2017-10-25	Bayer		
	8	Tebuconazole	Peach	2016-05-11	2017-10-25	Bayer		
	9	Tebuconazole	Cherry	2016-05-11	2017-10-25	Bayer		
	10	Tebuconazole	Raisin	2016-05-11	2017-10-25	Bayer		
	11	Pyraclostrobin	Нор	2015-12-30	2017-03-17	BASF	15 mg/kg, 제2016-153호	



Want to know the random sampling test items in Korea? Multi-residue Analysis(370 pesticides)

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
1	2,6-Diisoporpyl- naphthalene	x	21	Bromobutide	0	41	Chloroneb	x
2	Acrinathrin	0	22	Bromophos-methyl	X	42	Chloropropylate	Х
3	Aldrin & dieldrin	0	23	Bromopropylate	0	43	Chlorothalonil	0
4	Allethrin	X	24	Bupirimate	Х	44	Chlorpyrifos	0
5	Allidochlor	X	25	Butafenacil	X	45	Chlorpyrifos-methyl	0
6	Ametryn	X	26	Butralin	Х	46	Chlorthal-dimethyl	х
7	Anilofos	0	27	Butylate	Х	47	Chlorthion	х
8	Aspon	X	28	Cadusafos	0	48	Chlorthiophos	Х
9	Atrazine	X	29	Captan	0	49	Chlozolinate	х
10	Azaconazole	X	30	Carbophenothion	0	50	Cinmethylin	х
11	Azinphos-ethyl	X	31	Chinomethionate	0	51	Cyanazine	х
12	Azinphos-methyl	0	32	Chlorbufam	X	52	Cyanophos	х
13	Benalaxyl	0	33	Chlordane	0	53	Cycloate	х
14	BHC	0	34	Chlorethoxyfos	Х	54	Cyflufenamid	0
15	Lindane(γ-BHC)	0	35	Chlorfenapyr	0	55	Cyfluthrin	0
16	Benodanil	x	36	Chlorfenson	x	56	Cyhalofop-butyl	0
17	Benzoylprop-ethyl	x	37	Chlorfluazuron	0	57	Cyhalothrin	0
18	Bifenox	ο	38	Chlorflurenol- methyl	x	58	Cypermethrin	0
19	Bifenthrin	0	39	Chloridazon	X	59	Cyproconazole	0
20	Bromacil	0	40	Chlorobenzilate	0	60	Cyprodinil	0

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
61	Deltamethrin	0	81	Dioxathion	x	101	Etrimfos	0
62	Desmetryn	x	82	Diphenamid	0	102	Fenamidone	0
63	Diallate	X	83	Diphenylamine	0	103	Fenarimol	0
64	Diazinon	0	84	Dithiopyr	0	104	Fenazaquin	0
65	Dichlofenthion	x	85	DDT	0	105	Fenbuconazole	0
66	Dichlofluanid	0	86	Edifenphos	0	106	Fenchlorphos	х
67	Dichlormid	x	87	Endosulfan	0	107	Fenfuram	х
68	Dichlorvos	0	88	Endrin	0	108	Fenitrothion	0
69	Dicloran	0	89	EPN	0	109	Fenobucarb	0
70	Dicofol	0	90	Epoxiconazole	0	110	Fenothiocarb	0
71	Diethatyl-ethyl	x	91	EPTC	x	111	Fenoxanil	0
72	Diethofencarb	0	92	Esprocarb	0	112	Fenoxycarb	0
73	Diflufenican	x	93	Etaconazole	x	113	Fenpropathrin	0
74	Dimepiperate	0	94	Ethalfluralin	0	114	Fenson	х
75	Dimethachlor	x	95	Etofenprox	0	115	Fenthion	0
76	Dimethenamid	0	96	Ethion	0	116	Fenvalerate	0
77	Dimethoate	0	97	Ethofumesate	x	117	Fipronil	0
78	Dimethylvinphos	о	98	Ethoprophos	0	118	Flamprop- isopropyl	x
79	Diniconazole	0	99	Etoxazole	0	119	Flonicamid	0
80	Dinitramine	x	100	Etridiazole	0	120	Fluchloralin	x

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
121	Fludioxonil	0	141	Heptenophos	x	161	Mefenacet	0
122	Flufenpyr-ethyl	x	142	Hexachlorbenzene	x	162	Mefenpyr-diethyl	х
123	Flumetralin	x	143	Hexaconazole	0	163	Mepronil	0
124	Flumiclorac-pentyl	x	144	Imazalil	0	164	Metconazole	0
125	Flumioxazine	0	145	Indanofan	0	165	Methidathion	0
126	Fluopyram	0	146	Indoxacarb	0	166	Methoprotryne	х
127	Fluorodifen	x	147	Iprobenfos	0	167	Methoxychlor	0
128	Flurochloridone	x	148	Iprodione	0	168	Quintozene	0
129	Flurtamone	x	149	Iprovalicarb	0	169	Methyl trithion	х
130	Flusilazole	0	150	Isazofos	0	170	Metolachlor	0
131	Fluthiacet-methyl	x	151	lsofenphos	0	171	Metrafenone	0
132	Flutolanil	0	152	Isofenphos-methyl	x	172	Metribuzin	0
133	Flutriafol	x	153	Isopropalin	x	173	MGK-264	х
134	Fluvalinate	0	154	Isoprothiolane	0	174	Molinate	0
135	Folpet	0	155	Isoxathion	x	175	Myclobutanil	0
136	Fonofos	x	156	Kresoxim-methyl	0	176	Napropamide	0
137	Fosthiazate	0	157	Lactofen	x	177	Nitrapyrin	0
138	Fthalide	0	158	Leptophos	x	178	Nitrothal- isopropyl	x
139	Halfenprox	0	159	Malathion	0	179	Nonachlor	х
140	Heptachlor	0	160	Mecarbam	0	180	Nuarimol	0

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
181	Ofurace	0	201	Probenazole	x	221	Pyriminobac- methyl	ο
182	Oxadixyl	0	202	Prochloraz	0	222	Quinalphos	0
183	Paclobutrazol	0	203	Procymidone	0	223	Quinoxyfen	x
184	Parathion	0	204	Profenofos	0	224	Secbumeton	x
185	Parathion-methyl	0	205	Profluralin	x	225	Simeconazole	0
186	Pebulate	x	206	Prometon	x	226	Spiroxamine	x
187	Penconazole	0	207	Pronamide	x	227	Sulfotep	x
188	Pendimethalin	0	208	Propachlor	0	228	Sulprofos	x
189	Permethrin	0	209	Propazine	x	229	ТСМТВ	x
190	Phenthoate	0	210	Propetamphos	x	230	Tebuconazole	0
191	Pentoxazone	0	211	Propham	x	231	Tebufenpyrad	0
192	Phosalone	0	212	Propisochlor	0	232	Tebupirimfos	0
193	Phosmet	0	213	Prothiofos	0	233	Tefluthrin	0
194	Phosphamidone	0	214	Pyracarbolid	x	234	Terbacil	x
195	Picolinafen	х	215	Pyraclofos	0	235	Terbufos	0
196	Picoxystrobin	0	216	Pyrazophos	0	236	Terbumeton	x
197	Piperophos	0	217	Pyridaben	0	237	Terbuthylazine	0
198	Pirimicarb	0	218	Pyridalyl	0	238	Tetrachlorvinphos	x
199	Pirimiphos-ethyl	0	219	Pyrifenox	x	239	Tetraconazole	0
200	Pirimiphos-methyl	ο	220	Pyrimidifen	0	240	Tetradifon	0

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
241	Tetramethrin	x	261	Aldicarb	0	281	Clothianidin	0
242	Tetrasul	x	262	Amisulbrom	0	282	Cyazofamid	0
243	Thiazopyr	0	263	Asulam	x	283	Cycloprothrin	0
244	Thifluzamide	0	264	Azamethiphos	x	284	Cymoxanil	0
245	Thiometon	0	265	Azoxystrobin	0	285	Dicrotophos	х
246	Tolclofos-methyl	0	266	Bendiocarb	0	286	Dimethomorph	0
247	Tolfenpyrad	x	267	Bensulide	х	287	Ethaboxam	0
248	Tolyfluanid	o	268	Benzoximate	0	288	Ethametsulfuron- methyl	x
249	Triadimefon	0	269	Bixafen	х	289	Ethiofencarb	0
250	Triadimenol	0	270	Boscalid	0	290	Fenhexamid	0
251	Triazophos	0	271	Butocarboxim	x	291	Fenpyroximate	0
252	Tribufos	x	272	Carbaryl	0	292	Ferimzone	0
253	Triflumizole	0	273	Carbetamide	x	293	Fluacrypyrim	0
254	Triflumuron	0	274	Carbofuran	0	294	Fluazinam	0
255	Trifluralin	0	275	Chlorantraniliprole	0	295	Flubendiamide	0
256	Uniconazole	x	276	Chlorimuron-ethyl	x	296	Flufenacet	0
257	Vernolate	x	277	Chlorobenzuron	x	297	Flufenoxuron	0
258	Vinclozolin	0	278	Chlorotoluron	x	298	Fluometuron	X
259	Zoxamide	0	279	Chromafenozide	0	299	Fluquinconazole	0
260	Acetamiprid	0	280	Cinosulfuron	0	300	Fluridone	X

No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea	No.	Pesticide	Setting MRLs in Korea
301	Flusulfamide	0	325	Metominostrobin	x	349	Quinoclamine	0
302	Forchlorfenuron	0	326	Metosulam	x	350	Rimsulfuron	X
303	Hexaflumuron	0	327	Nitenpyram	x	351	Spirodiclofen	0
304	Imazamox	X	328	Novaluron	0	352	Sulfentrazone	Х
305	Imazapic	0	329	Oxamyl	0	353	Tebufenozide	0
306	Imazaquin	X	330	Oxaziclomefon	0	354	Tebuthiuron	Х
307	Imazethapyr	0	331	Phenmedipham	x	355	Teflubenzuron	0
308	Imibenconazole	0	332	Pinoxaden	x	356	Tepraloxydim	Х
309	Ipconazole	0	333	Promecarb	x	357	Thenylchlor	0
310	Isoprocarb	0	334	Propaquizafop	0	358	Thiacloprid	0
311	Isoproturon	X	335	Propoxur	0	359	Thiamethoxam	0
312	Isoxaben	Х	336	Propyrisulfuron	0	360	Tiadinil	0
313	Lenacil	X	337	Prosulfocarb	x	361	Tralkoxydim	х
314	Lufenuron	0	338	Prothioconazole	x	362	Triasulfuron	Х
315	Malaoxon	X	339	Pyraclonil	0	363	Tribenuron-methyl	х
316	Mepanipyrim	0	340	Pyraclostrobin	0	364	Tricyclazole	0
317	Mesosulfuron-methyl	Х	341	Pyraflufen-ethyl	0	365	Tridemorph	Х
318	Metamifop	0	342	Pyrazolate	0	366	Trifloxystrobin	0
319	Metamitron	X	343	Pyribenzoxim	0	367	Trifloxysulfuron	X
320	Methabenzthiazuron	0	344	Pyributicarb	0	368	Trimethacarb	х
321	Methiocarb	0	345	Pyridate	x	369	Triticonazole	Х
322	Methomyl(thiodicarb)	0	346	Pyrimethanil	o	370	ХМС	x
323	Methoxyfenozide	0	347	Pyriproxyfen	0			
324	Metolcarb	0	348	Pyroquilon	x			



Q & A

Q1. How to Apply for Import Tolerances?

A. To apply for import tolerance, you need to access the h omepage of food safety korea(<u>www.foodsafetykorea.g</u> <u>o.kr</u>). And applicant can request pre-submission before applying. Get further information on "Manual on import tolerance application" that is uploaded on homepage.

Q2. What data are needed to obtain on an exemp tion from the requirement of a MRLs list?

A. Generally require the same types of data as are need to establish import tolerance. Toxicity data, Residue data and report of evaluation about exemption from other cou ntries.

Q3. When have non English language residue tri al data or Label?

A. All data should be submit that translated into English wit h original.

Q4. How many residue trial data are need to obt ain an Import tolerance?

A. Minimum of 6 valid residue trial data would be required. Exceptionally, if Codex or exporter had been establishe d Group MRL, commonly 3 residue trial data are accept ed. Or minor crop in the codex, it is possible to review w ith less than 6 residue trial data. Q5. If there are residue reports conducted in the US and EU, and the MRLs are set in the country where GAP is different, should we submit only the cGAP eq uivalent? Or should we submit all?

A. To set up an internationally harmonious MRLs, we need to have enough review material. Therefore, even if the GAP is different, it is desirable to submit all the field trial s data that have been performed. Q6. Could we keep the existing MRLs and set the group MRLs to other crops?

 A. Available. For example, if you want to set the group MR L of cereal grains using barley and oat except wheat, yo u can set the group MRL of cereal grains by using whea t, barley and oat, while maintaining the MRL for wheat. This can be discussed and decided.

