

An Update on Japan's New Positive List System for Regulating Agricultural Chemical Residues in Food: Blueberries

Joe DeFrancesco
Oregon State University
(541) 737-0718
defrancj@hort.oregonstate.edu

On May 26, 2006, Japan will implement new regulations for residues of agricultural chemicals (pesticides) in food and livestock products entering Japan. The allowable residue for a food commodity is known as the Maximum Residue Level (MRL) and is expressed in parts per million (ppm). Japan's old, unofficial system of acceptable residue levels on food entering Japan was based on Codex (international MRLs) or, as a default, the MRL of the exporting country. Not so, anymore. Japan's Ministry of Health, Labor and Welfare (MHLW) has established provisional Maximum Residue Levels (MRLs) for most of the agricultural chemicals used in USA food production, based on existing Codex MRLs, or by calculating an average of the MRLs from the USA, EU, Australia, New Zealand, and Canada. The MHLW will use these provisional MRLs until official MRLs are established. The MHLW will ask the Japanese Food Safety Commission to review the provisional MRLs and establish permanent MRLs; their goal is to perform full risk assessments for about 150 individual agricultural chemicals each year over the course of the next five years (there are currently 758 provisional chemicals).

After May 29, 2006, produce with pesticide residues exceeding these MRLs, or residues exceeding the default tolerance of the "uniform limit" (0.01ppm) for those pesticides for which there is no Japanese MRL, cannot be marketed in Japan and will be rejected at the port.

Note: Although I have attempted to report to most current and accurate information, there are still some areas where clear and concise information about policy is lacking; USA exporters are encouraged to verify import requirements with their foreign customers. Blueberry growers who sell to USA shippers should discuss their pesticide spray schedule with them. Anyone with questions, or additional information about the new system, should feel free to contact me.

New MRLs and Section 18 Pesticides:

Any new MRL approved in the USA after the list of provisional Japanese MRLs was finalized (March 1, 2006) will not be added unless an application is submitted to Japan. The MHLW will establish new official MRLs as new chemicals and applications are approved in Japan. For those chemicals not used in Japan, the MHLW will review the information and data provided from the foreign country. They have published guidelines for foreign entities (pesticide registrants) to use for application for new MRLs. In general, when a pesticide company or the IR-4 Project applies to the EPA for the establishment of a tolerance (MRL), they should also apply to Japan.

Oregon and Washington blueberry growers have been allowed use of Indar (fenbuconazole) for mummy berry control under Section 18 (emergency exemption) for the past several years, including the 2006 field season. Since so many states in the USA have had a Section 18 for Indar for so many years, Japan has already added fenbuconazole to its list of provisional MRLs, so fruit treated with Indar will be accepted by Japan. A Section 18 for a pesticide that is not on Japan's list will not be allowed. It is highly recommended that the data and information to support a Section 18 that is submitted to EPA also be submitted to Japan. However, this is one of those gray areas because we don't yet know whether or not Japan will accept Section 18 data in the future.

Testing of Imported Foods:

The MHLW routinely conducts monitoring tests for pesticides as food products arrive in Japanese ports. Normally, MHLW monitors 3-10% of imported food for agricultural chemicals, antimicrobials, food additives, microorganisms, fungal toxins, and unapproved genetically modified products. Only about half of these samples are tested for agricultural chemicals and antimicrobials. There is not expected to be any changes to MHLW's current monitoring program; the frequency of sampling and the number of samples for chemical residue tests should not change. However, if violations are found, there is a procedure in place for further testing, usually at the expense of the importer. Japanese importers may ask USA shippers for pesticide and crop information, or even chemical residue test data, but neither is required by Japanese law. What a USA shipper provides to the importer is entirely a business decision between them and the importer or broker.

Discrepancies between USA and Japanese MRLs:

When you compare the MRLs between the USA and Japan in the list that I provided, you'll notice that, for 15 of the pesticides listed, the MRL in Japan is lower than the MRL allowed in the USA. In most cases, when a pesticide is used in the USA according to the labeled rate and use pattern, there are negligible residues found in the crop, so residue levels above the allowable Japanese MRL would be unlikely. However, we don't yet know how MHLW and/or Japanese importers will view those pesticides with MRLs that are lower in Japan. I was told by someone at the USDA/Foreign Agricultural Service that the worse that will happen is that the MHLW will test for that particular pesticide, however it is unlikely that they will, as they are not planning to increase their testing regime. The big question is how a particular importer will view the difference between the two MRLs. It was suggested to me that if there are questions, it might be prudent for the USA shipper to test for the pesticide(s) in question in order to remove any doubts on the part of the importer; but again, it is a business decision between the USA shipper and the importer or broker.

Pesticides Exempt from Tolerance in the USA but not in Japan:

Currently, there are 19 pesticides used in PNW blueberry production that are exempt from tolerance (no MRL) in the USA because EPA has determined that those products are generally recognized as safe. However, Japan has its own list of chemicals that they consider generally safe (i.e. exempt, with no MRL). The question is: how will MHLW and/or importers deal with a crop that has been treated with one or more of those chemicals that are exempt from tolerance in the USA but not on Japan's list? Once again, the answer is that we don't know for sure. It is possible that Japan may set a default tolerance of 0.01ppm for those chemicals. I was told that MHLW never before tested for USA exempt chemicals so it is unlikely that they will start. We are trying to get further clarification from Japan on this exemption issue. Many questions abound. Copper, for example, is on Japan's list of exempt chemicals but copper sulfate, copper hydroxide, etc, are not specifically listed. We don't know if they are included in the copper exemption. Importers may be the ones most concerned with the fact that those USA exempted chemicals appear on neither the Japanese list of exemptions nor on the list of provisional MRLs. Shippers should discuss this issue with their importers/brokers.

Websites of Interest

Established MRLs: www.mhlw.go.jp/english/topics/foodsafety/positivelist060228/dl/r02.pdf

Provisional MRLs: www.mhlw.go.jp/english/topics/foodsafety/positivelist060228/dl/r03.pdf

For general information about Japan's Positive List System, you can visit this MHLW site:
www.mhlw.go.jp/english/topics/foodsafety/positivelist060228/index.html

USA and Provisional Japanese Tolerances
Maximum Residue Levels (MRLs)
Oregon Blueberries
5/1/06

Product Name	Chemical Name (active ingredient)	MRLs (ppm)	
		USA	Japan ^y
Insecticides/Miticides			
Actara, Platinum	Thiamethoxam	0.2	5.0
Admire, Provado	Imidacloprid	3.5	3.0
Asana XL	Esfenvalerate (fenvalerate) ^z	3.0	1.0
Bt (<i>Bacillus thuringiensis</i>)	DiPel, Javelin, MVP	Exempt	---
Confirm	Tebufenozide	3.0	3.0
Cryolite Bait	Sodium aluminofluoride	7.0	NT
Diazinon	Diazinon	0.5	0.1
Esteem	Pyriproxyfen	1.0	1.0
Imidan	Phosmet	10.0	10.0
Lannate	Methomyl	6.0	1.0
Malathion	Malathion	8.0	0.5
Mycotrol	<i>Beauveria bassiana</i>	Exempt	---
Neemix, Aza-Direct	Azadirachtin	Exempt	Exempt
Pyganic	Pyrethrin	1.0	1.0
Pyrellin	Pyrethrin + Rotenone	1.0/Exempt	1.0/---
Sevin	Carbaryl	10.0	7.0
Soaps (Potassium salts of fatty acids)	Safer, M-Pede	Exempt	---
Success, Entrust	Spinosad	0.25	1.0
Thionex	Endosulfan	0.1	0.5
Fungicides			
Abound	Azoxystrobin	3.0	10.0
Aliette	Fosetyl-Al (Aluminum tris)	40.0	70.0
Bordeaux	Copper sulfate + lime	Exempt	---
Bravo	Chlorothalonil	1.0	1.0
Cabrio	Pyraclostrobin	1.3	1.0
Captan	Captan	25.0	20.0
Captevate	Captan + fenhexamid	25.0/5.0	20.0/20.0
Copper (Kocide, Champ, etc.)	Copper hydroxide, copper sulfate	Exempt	---
Elevate	Fenhexamid	5.0	20.0
Fosphite, Phostrol	Phosphorous acid	Exempt	---
Indar	Fenbuconazole	1.0 (temp)	5.0
Iprodione	Iprodione	15.0	15.0
Lime Sulfur	Calcium Polysulfide	Exempt	---
Oil	BioCover; Sun; JMS	Exempt	---
Kaligreen, Milstop	Potassium bicarbonate	Exempt	---
Pristine	Boscalid + pyraclostrobin	3.5/1.3	3.5/1.0
Ridomil Gold	Mefenoxam (metalaxyl)	2.0	1.0
Serenade MAX	<i>Bacillus subtilis</i>	Exempt	---
Thiolux; Microthiol	Sulfur	Exempt	Exempt
Switch	Cyprodinil + fludioxonil	3.0/2.0	3.0/5.0
Ziram	Ziram (Zinc dimethyl dithiocarbamate)	7.0	5.0

Product Name	Chemical Name (active ingredient)	USA	Japan ^y
Herbicides			
Aim	Carfentrazone-ethyl	0.1	0.1
Casoron	Dichlobenil	0.15	0.2
Devrinol	Napropamide	0.1	0.1
Gramoxone	Paraquat	0.5	0.05
Karmex	Diuron	1.0	0.05
Kerb	Pronamide (propyzamide)	0.05	0.04
Poast	Sethoxydim	4.0	4.0
Rely	Glufosinate	0.15	0.1
Roundup, Touchdown, etc	Glyphosate	0.2	0.2
Saber	2,4-D	0.1	0.1
Scythe	Pelargonic acid	Exempt	---
Simazine, Princep	Simazine	0.25	0.2
Sinbar	Terbacil	0.2	0.1
Solicam	Norflurazon	0.2	0.2
Surflan	Oryzalin	0.05	0.08
Velpar	Hexazinone	0.2	0.2
Other Products			
Bird Shield	Methyl Anthranilate	Exempt	---
Dormex	Hydrogen cyanamide	Exempt	---
Ethrel	Ethephon	20.0	20.0
Sluggo	Iron Phosphate	Exempt	---
Messenger	Harpin protein	Exempt	---
Metaldehyde	Deadline	??	1.0
Prozap Z-P Pellets	Zinc Phosphide	??	0.01
ReJex-iT	Methyl Anthranilate	Exempt	---

^y = Japanese MRLs in bold are already established and not provisional; all others are provisional

^z = Tolerance is for fenvalerate but Japanese MRL includes esfenvalerate

NT = No tolerance set/listed at this time (Japanese default tolerance is 0.01ppm); Japan has been made aware of the cryolite exclusion

?? = No USA tolerance listed in USA database (40 CFR 180)

--- = Pesticides that are exempt from tolerance in the USA do not appear as exempt, or otherwise, in Japan's database

Exempt = Pesticides that are exempt from tolerance (no MRL established or needed)