MRL Quick Reference Sheets (QRS) – User Guide

December 23, 2025

Pesticide Maximum Residue Levels (MRLs) pose one of the most significant challenges to U.S. specialty crop exports. Differing or missing foreign MRLs can result in costly rejections of U.S. products that are compliant with U.S. standards. Knowing foreign MRLs for a crop is critical for successful exporting.

As part of the Assisting Specialty Crop Exports (ASCE) initiative, the U.S. Department of Agriculture (USDA) has committed to generating easy-to-understand MRL Quick Reference Sheets (QRS) to assist U.S. specialty crop producers and exporters navigate the complex global MRL environment. Each QRS covers one of 60 specialty crops, comparing U.S. MRLs with those in ten key export markets for that crop, along with the international Codex MRL standards. The QRSs also include valuable additional information, such as trade names, pesticide types, and whether a foreign country tests for the substance in question (when known). Together, these sheets will enable specialty crop farmers, exporters, and grower groups to make informed decisions about plant protection product applications and MRLs.

The MRL QRSs are updated twice a year to ensure accuracy and relevance. For questions and comments, please contact ascemrls@bryantchristie.com.

Overview

Selection of Specialty Crops for the QRS

Specialty crops are defined as "fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture." To determine the commodities that would receive a MRL Quick Reference Sheet, interest in MRL issues expressed to USDA through industry consultation and export volumes were considered. The USDA also sought input from the Fruit and Vegetable Agricultural Technical Advisory Committee (ATAC). Additional suggestions were received from various grower organizations through the ASCE MRL Projects Stakeholder Group Meetings and outreach. Based on this feedback, 60 commodities were selected to receive QRSs. The QRS commodity list appears below in Table 1. For processed specialty crop commodities, the QRS includes both the established MRL on the raw agriculture (fresh) commodity and the processed MRL when available.

Table 1. *Specialty Crops Selected for the QRS*

Crops/Commodities							
1	Almond	16	Date	31	Macadamia Nut	46	Raspberry
2	Apple	17	Dry Bean	32	Mandarin (Tangerine)	47	Romaine Lettuce
3	Apricot	18	Dry Pea	33	Peppermint	48	Shallot
4	Asparagus	19	Fig	34	Nectarine	49	Spinach
5	Avocado	20	Ginseng	35	Olive	50	Strawberry
6	Bell Pepper	21	Grapefruit	36	Onion (bulb)	51	Sweet Cherry
7	Broccoli	22	Hazelnut	37	Papaya	52	Sweet Corn
8	Cantaloupe	23	Head Lettuce	38	Peach	53	Sweet Orange
9	Carrot	24	Highbush Blueberry	39	Pear	54	Sweet Potato
10	Cauliflower	25	Hop	40	Pecan	55	Table Grape
11	Celery	26	Kiwifruit	41	Pistachio	56	Tart/Sour Cherry
12	Chickpea	27	Lemon	42	Plum (Prune)	57	Tomato
13	Coffee Bean	28	Lentil	43	Pomegranate	58	Walnut
14	Cranberry	29	Lime	44	Potato	59	Watermelon
15	Cucumber	30	Lowbush Blueberry	45	Raisin	60	Wine Grape

Selection of Key Export Markets for the QRS

USDA recognizes MRL policies vary between markets. Some markets maintain their own national MRL lists. When a national MRL is not established, markets may use default MRLs; consider Codex MRLs in some capacity; or defer to MRLs from third markets.

Each MRL Quick Reference Sheet includes relevant MRL data for major U.S. export markets that maintain their own national MRL lists. All QRSs include the established MRLs in the United States, Codex, Canada, the European Union (EU), Great Britain, Japan, Mexico, South Korea, and Taiwan. The three additional markets are selected based on each individual commodity priority markets.

To identify the three additional markets for each commodity, trade data from the USDA Foreign Agricultural Service's Global Trade System (GATS) was analyzed. The top 20 export markets by trade volume (in dollar value) were determined for each crop based on data for the past three complete calendar years (2021 – 2023). Each market was then assessed to verify whether it maintains a national MRL list and whether it relies on Codex MRLs. For the additional three markets, only those with established national MRL lists are included in the QRS.

Regarding the EU and UK MRL policies, please note the following unique MRL policy information:

- **European Union (EU):** The EU maintains a community-wide MRL list which applies to all EU member states. The EU consists of twenty-seven member countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.
- **Great Britain:** As a result of the UK's withdrawal from the European Union, the UK is now responsible for the review and implementation of its food standards. Due to the challenges of leaving the Union, new pesticide MRL regulations only applies to Great Britain (England, Scotland, and Wales) and not to Northern Ireland, which continues to follow EU regulations.

MRL Quick Reference Sheets (QRS) Content

Each Quick Reference Sheet consists of six main columns:

1. **Active Ingredient:** This column lists the chemical substances for which U.S. MRLs have been established for the specific commodity.

2. **Trade Name:** This column provides product trade names containing the active ingredient. The information is not comprehensive and does not guarantee that the product is registered for use on all commodities or in every U.S. state. This information is particularly helpful to growers, who are often more familiar with trade names than active ingredient names.

3. **Class of Product**: This column specifies the type(s) of chemical substances. Categories include fungicide, herbicide, insecticide (which, in the context of the QRS, broadly includes rodenticide, molluscicide, miticide, acaricide, fumigant), as well as nematicide, plant growth regulator, and synergist. This list aligns with major classifications found in the Insecticide Resistance Action Committee (IRAC), the Fungicide Resistance Action Committee (FRAC), and the Herbicide Resistance Action Committee (HRAC). Substances not included in IRAC, FRAC, or HRAC classifications are categorized based on information available from product labels and regulatory guidelines.

4. **Registrant:** This column identifies the U.S. registrant for the substance. For generic products, multiple registrants or task force may exist, and not all may be listed. Please note that in foreign markets, the data owners and licensed products may differ.

5. **Monitoring Program**: This column provides the latest publicly available information on monitoring programs for select markets. Some countries publish lists of substances planned for monitoring in the current or upcoming years, while others publish residue reports detailing substances tested in past programs. Markets marked with an asterisk (*) indicate that the information is based on monitoring programs from previous years.

Information based on Targeted Monitoring Lists	
Australia	Plant product residue monitoring is conducted as part of the National Residue Survey (NRS) by the Department of Agriculture, Fisheries and Forestry (DAFF), through three separate horticulture product residue testing programs. Information according to Fruit and Vegetable Residue Screen Analysis on DAFF's website. It lists substances that are currently being monitored.
European Union (EU)	The EU Multi-Annual Control Program is **c**oordinated at the EU level and specifies pesticide-product combinations for monitoring and sets minimum sampling requirements for all Member States. It promotes a harmonized approach across the EU to identify trends and verify compliance with EU-wide food safety standards. Information according to Commission Implementing Regulation (EU) 2025/854 of May 7, 2025, listing the monitoring plan for 2026.
Great Britain	Information according to the Co-Ordinated Multi-Annual Great Britain Control Plan for Pesticide Residues – 2026, 2027 and 2028, published on June 20, 2025.
Japan	The Ministry of Health, Labour and Welfare (MHLW) publishes its yearly Imported Foods Monitoring Plan. It was last updated on March 28, 2025.
Korea	Information according to Article 8 of the Food Code, last revised on March 20, 2018. Article 8 lists substances that are currently being monitored.
Mexico	The National Service of Health, Safety and Agri-Food Quality publishes the lists of pesticide residues and contaminants to be monitored in the National Program for the Monitoring of Pesticide Residues in Vegetables. Published on March 7, 2025.
Taiwan	Information according to Test Methods for Pesticide Residues in food (Annex No. 1111901537), released on August 17, 2022, last updated on May 9, 2024. The Annex lists substances that are currently being monitored.
Information based on Pesticide Residue Reports from Previous Years	
Canada*	Canada's pesticide residue monitoring assesses chemical residues and contaminants in foods to ensure compliance with Health Canada's established MRLs. Annually, it tests domestic and imported foods, including fresh produce, dairy, meat, and processed items, analyzing for pesticides, veterinary drugs, metals, and other contaminants. Samples are collected from farms, processing facilities, and retail outlets, with results used to identify trends, guide safety policies, and enforce standards. Information based on the 2021/22 Annual Report: National Chemical Residue Monitoring Program and Chemistry Food Safety Oversight Program, released on October 28, 2024.
European Union (EU)*	The National Control Programs are designed by individual EU member states and updated annually. They target specific products and pesticides that are likely to exceed residue limits or pose risks to consumer safety. Each country tailors its

	approach to addressing local priorities, ensuring robust oversight of domestically produced and imported goods. The results are reported to EFSA who publishes an annual report of its findings. Information according to the 2023 EU report on pesticide residues in food, published May 14, 2025.
Great Britain*	The UK carries out a national monitoring program of pesticide residue testing. Results for each quarter are reviewed in detail by the Expert Committee on Pesticide Residues in Food (PRiF), and the final results are compiled into an annual report. Information according to the 2025 PRiF Report Annual Data, published on November 20, 2025.
Brazil*	Brazil's Pesticide Residue Monitoring Program, known as PARA, assesses the presence of pesticide residues in food consumed across Brazil. Samples of food, including both fresh and processed items, are collected from supermarkets nationwide and are then analyzed. The results guide actions to mitigate risks, such as banning harmful pesticides or adjusting agricultural practices. Information according to the 2023 PARA report.
Costa Rica*	Costa Rica's pesticide residue monitoring program, detailed by the National Phytosanitary Service (SFE), ensures the safety of fresh plant products for human consumption. Sampling occurs in diverse locations, including fields, supermarkets, farmers' markets, collection centers, and phytosanitary control stations at import points. Last update on October 22, 2025.

6. **MRLs:** The Quick Reference Sheets include MRLs from the U.S., Codex, and ten markets. The MRLs are drawn from FoodChain ID's Regulatory Limits MRL Database, which offers up-to-date information on MRLs established globally. USDA currently funds the 'Starter' subscription for the database where users in the United States can have access to current corresponding international MRL information. The MRLs in the QRS are accurate as of the date cited, but users should check the FoodChain ID database for the latest information.

   The following symbols and terms may appear under the MRLs on the QRS:

--	***A dash*** indicates a MRL (or tolerance) is not established for the commodity and active ingredient combination.
{123}	***A MRL listed in red text and enclosed in brackets*** indicates the MRL is more restrictive than the U.S. MRL.
*	***An asterisk*** indicates additional MRLs are in effect and may be applicable to the raw agricultural commodity and pesticide active ingredient. For more information on additional MRLs, please consult the U.S. Code of Federal Regulations and the MRL databases of each foreign market listed under "MRL Information Sources" in the legend.
Default	***Default*** indicates the MRL value displayed is a default tolerance. Some markets apply a default MRL value when a MRL has not been established for the commodity/active ingredient combination.

Import Tolerance	***Import Tolerance*** indicates that the MRL has been set by the country or market for imported products only. Import tolerances do not apply for domestically produced products. This MRL will be noted as an Import Tolerance only if it is specifically identified as such in the MRL regulation. Not all markets indicate whether an MRL is an import tolerance.
LOD	***LOD*** is the "Limit of Determination," which Codex Alimentarius defines as "the lowest concentration of a pesticide residue or contaminant that can be identified and quantitatively measured in a special food, agricultural commodity, or animal feed with an acceptable degree of certainty by a regulatory method of analysis."
LOQ	***LOQ*** is the "Limit of Quantification." It is the lowest concentration of a substance that can be measured with certainty using standard tests. The LOQ may be equal to or higher than the LOD.
Processed MRLs	Not all markets establish processed MRLs. For enforcement purposes, markets may choose to apply a processing factor to the MRL established on the raw commodity. Processing factors are usually not publicly available.
US Regional	***US Regional*** indicates a U.S. MRL with regional registration. Such a tolerance is supported by residue data from specific growing regions for a raw agricultural commodity (See US 40 CFR 180.1 (l)).
US Section 18	***US Section 18*** indicates a U.S. MRL emergency exemption.

The **U.S. Department of Agriculture** (USDA) highlights that this MRL Quick Reference Sheet does not guarantee the acceptance of shipments in foreign markets and the decision whether to ship and responsibility for shipping remains that of the shipper taking all relevant information into consideration.

Bryant Christie Inc. (BCI) and **FoodChain ID** remind users that pesticide maximum residues levels and associated government policies change with great frequency and that the QRS is a static report. The information provided is to the best of BCI's and FoodChain ID's knowledge at the time the report was generated using its extensive background and networks. However, information contained within the report is intended to be an initial reference only, and users of this information must verify information obtained from it with knowledgeable parties in the market of interest prior to the sale or shipment of any products. USERS OF THIS INFORMATION ACKNOWLEDGE THAT BCI AND FOODCHAIN ID CANNOT AND DOES NOT WARRANT THAT THE MRL DATA OR OTHER INFORMATION CONTAINED IN THE MRL QRS WILL BE ONE HUNDRED PERCENT (100%) ACCURATE AND FREE OF OMISSIONS. GIVEN THAT MRL INFORMATION CHANGES RAPIDLY AND UNEXPECTED DEVELOPMENTS CAN OCCUR, THE USERS OF THE MRL QRS SHOULD CONSIDER ANY INFORMATION PROVIDED IN THIS DOCUMENT AS GENERAL GUIDANCE ONLY. THE USER IS RESPONSIBLE FOR ALL BUSINESS DECISIONS MADE BASED ON ANY MRL AND RELATED INFORMATION PROVIDED.