

American Spice Trade Association

Information Bulletin

Agricultural Chemical Residues in Spices

Introduction

Many spices are grown in countries that are in the process of developing and implementing regulations for the approval of the use of agricultural chemicals (pesticides, herbicides, fungicides, rodenticides etc.). These regulations typically cover the application of agricultural chemicals to food crops and the permitted presence of residues of such substances in these crops. Regulations regarding agricultural chemicals vary widely among spice producing and importing countries. Residues of agricultural chemicals that are permitted for application in producing countries may be present on spices shipped to importing countries that do not approve of the use these agricultural chemicals or their residues to be present on spices.

The Purpose of this Bulletin

This bulletin is intended to serve as a resource to obtain information on agricultural chemicals that may be present in some spices through application in producing countries when such chemicals and their residues may present a regulatory risk if they are not approved in the importing country. This bulletin is not intended to be a comprehensive resource and it is important to note that there are a variety of information resources available that may be helpful with these matters. Specifically, this information may be helpful in compliance activities related to the U.S. Food Safety Modernization Act (FSMA) including the relevant preventive controls regulations implemented by the U.S. Food and Drug Administration (FDA) under the authority granted by the FSMA. The information in this bulletin does not indicate that any specific agricultural chemicals and their residues have been identified in spices and does not suggest that if present such substances would pose a human health risk. The information in this bulletin is provided by ASTA without any warranty or guarantee of accuracy and before acting on this information users should verify it.

Information Resources

The following information resources may be useful in a variety of compliance and customer relations activities. ASTA does not endorse any of these information resources and encourages users to verify all information obtained before acting on it. Underlined documents indicate links to the documents.

The U.S. Food and Drug Administration

The U.S. Food and Drug Administration (FDA) is the federal agency responsible for enforcing tolerances for agricultural chemical residues on food that have been established by the U.S. Environmental Protection Agency (EPA). Because of FDA's regulatory responsibility in this area it is often viewed as the most relevant U.S.

regulatory agency regarding agricultural chemical residues and food. FDA has a number of information resources available on the FDA website (www.fda.gov) that are helpful in assessing regulatory risk and compliance including:

- Pesticide Residue Monitoring Program Fiscal Year 2015 Pesticide Report – FDA conducts a program to analyze foods for pesticide residues and publishes an annual report describing the results of their analyses. Past year reports are available on the FDA website.
- Guidance for Industry: Channels of Trade Policy for Commodities with Residues of Pesticide Chemicals – This guidance describes FDA policy on instances when foods may contain agricultural chemical residues when tolerances may not have been established or have been revoked, suspended or modified by EPA.
- The Glossary of Pesticide Chemicals – This document contains an extensive list of agricultural chemicals and relevant regulatory information including tolerances.

The U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for approving the use of agricultural chemicals in the U.S. and for setting tolerances for the presence of these chemicals and their residues on food. The EPA website (www.epa.gov) has a large amount of information available on agricultural chemicals that are approved for application in the U.S. and tolerances for residues on food. Because many spices are grown outside of the U.S., and most are considered “minor crops” for regulatory purposes, there are few agricultural chemical approvals and tolerances specific for spices established by EPA.

The World Health Organization

The International Programme on Chemical Safety (IPCS) of the World Health Organization (WHO) provides a classification scheme for agricultural chemicals. [This report](#) identifies agricultural chemicals that may present a hazard and therefore regulatory risk in compliance activities. It is most helpful in this regard to focus on two lists of agricultural chemicals provided in the IPCS report – List 1a, “extremely hazardous” agricultural chemicals and List 1b, “highly hazardous” agricultural chemicals. Understanding whether the agricultural chemicals identified in the IPCS report on Lists 1a and 1b have been used on specific spices from specific growing areas can be highly beneficial to spice company regulatory compliance programs. Information derived from the IPCS report can be compared with regulatory information from relevant jurisdictions regarding the approval of agricultural chemicals and whether there are tolerances for the presence of residues on spices.

European Union

The European Union maintains a variety of information resources on agricultural chemicals and their regulation. One useful resource is the EU Pesticides Database (www.ec.europa.eu/food/plant/pesticides/eu-pesticides-database/). This database contains information on agricultural chemicals and their residues that are approved in the E.U. including specific information on maximum residue levels (MRLs) for agricultural chemicals.

Other Resources

Pesticide Action Network of North America (PANNA) – PANNA is a non-governmental organization that maintains information resources on its website (www.pesticideinfo.org)

Bryant Christie, Inc. – This private company maintains a subscription database on MRLs and other related information (www.globalmrl.com).

Centre for Agriculture and Biosciences International (CABI) – this non-governmental organization maintains a database of globally prohibited agricultural chemicals and other relevant information (www.plantwise.org).