

United States Quarantine and Pre-Shipment Usage of Methyl Bromide

Robert M. Baca

USDA-APHIS-PPQ, 4700 River Road, Unit 150, Riverdale, MD 20737.

In the Plant Protection Act of 2000, the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Services (APHIS) Plant Protection and Quarantine (PPQ) was charged to regulate the movement of any commodity capable of harboring invasive, threatening plant pests, in order to protect the agriculture, environment and economy of the United States. Nevertheless, PPQ is also tasked with facilitating import, export and interstate commerce of agricultural products and other commodities that pose a risk of harboring plant pests.

Although numerous efforts are underway to reduce usage and find alternatives, methyl bromide remains a critical safeguarding component for mitigating the pest risks associated with traded goods. In 2011, more than half a million pounds of methyl bromide were used in PPQ-supervised, port-of-entry fumigations on approximately 150 commodities from 95 countries. In nearly all of these cases, there are no feasible alternatives for methyl bromide fumigations. Approximately 90% of this usage is for condition of entry situations, when a commodity requires methyl bromide fumigation for entry into the United States. The remaining 10% is used as an emergency response measure after a quarantine pest is found during the inspection process.

Although the quarantine and pre-shipment (QPS) use of methyl bromide is exempt from the global phaseout of the fumigant per the Montreal Protocol, PPQ is committed to the identification, development, and validation of alternative treatments as well as development of techniques to reduce usage during methyl bromide fumigations. In the past few years, the PPQ Center for Plant Health Science and Technology has evaluated alternative fumigants; heat, cold and irradiation treatments; and systems approaches to replace currently-used methyl bromide treatments. Several of these alternatives, such as the use of sulfuryl fluoride for log exports to China, have been approved and are currently in use as quarantine phytosanitary treatments.